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Force Integration

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*Field Manual 100-11

Headquarters
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Force Integration

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FIGURE LIST

TABLE LIST

PREFACE

This manual provides the Army's force integration capstone doctrine for use by those who plan, program, and manage the introduction and resourcing of changes to the Army's structure and composition. It is an equally valuable reference for commanders and leaders who execute the changes.

These changes are caused by the Army's adoption of new or revised doctrine, organizations, manpower, and equipment. The effects of change may impact any or all echelons from Headquarters, Department of the Army, to the installation and unit levels. Changes permeate each component of the Army (Active, Reserve and National Guard).

The force integration process minimizes adverse effects on the readiness of Army units and component commands while changes are implemented. As a result, the Army remains prepared to perform all of its missions promptly and decisively. These missions range across the spectrum of crisis from humanitarian operations, through military operations other than war, to fighting and winning the Nation's wars.

FM 100-5 describes the Army's doctrinal principles for employing forces to accomplish assigned missions on this spectrum. FM 100-11 discusses how the Army builds and maintains the force projection capabilities required to execute these operations.

The proponent for this manual is the Office of the Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army. Record comments and recommendations on Department of the Army Form 2028 (Recommended Changes to Publications and Blank Forms). Send Forms to Commandant, Army Force Management School, 5500 21st Street, Building 247, Suite 1400, Fort Belvoir, Virginia 22060-5923.

INTRODUCTION

Title 10 (Armed Forces), United States Code, section 3062, requires that the Army be organized, trained, and equipped for prompt and sustained land combat. The doctrine in FM 100-11 supports this statutory requirement.

Events of the 1980's provided the impetus for the initial effort to document the Army's management of change doctrine. During this period, sweeping changes were taking place. AirLand Battle war fighting doctrine, Army of Excellence organizations, and over 400 new materiel systems (including the Abrams tank, Bradley fighting vehicle, Blackhawk helicopter, Patriot air defense system, and multiple-launch rocket systems) were introduced into the Army.

The 1988 edition of FM 100-11 provided managers of change with the first comprehensive explanation of the functions and systems that are known collectively as the force integration process. In 1995, the description of this complex process was updated to reflect then current doctrine.

This edition provides overviews of how the Army "works" as an institution and as an organization and briefly discusses our war-fighting doctrine. This manual then describes the force integration functions and systems that organize, structure, man, equip, train, sustain, station, and resource the force projection Army. Finally, this manual relates the force integration process to the maintenance of unit and force readiness during the introduction of change.

Chapter 1
How the Army Works

Section I:
Introduction

1-1. Building more capable forces

The successful integration of new doctrine, organizations, and equipment into the Army requires the synchronization of many Army functional systems and multiple levels of command. Managing these interrelated functions to build a more capable force is necessary to enable the effective conduct of combat operations. While the functions are linked in the building of a combat-ready force, the processes and systems that support the functions are not always linked. Command, management, and leadership exist to provide that linkage.

1-2. Perspective for leaders and managers

As the Army evolves into the 21st Century, it must retain its historic foundations. This evolutionary process is based on the Army's enduring values and core competencies, and guided by its leadership's vision of the future Army. This chapter reviews where the Army fits into the national defense environment by discussing the Army's roles and missions and the chain of command. It provides an overview of the planning process to reveal how to determine Army requirements. This chapter concludes with a discussion of the Army Organizational Life Cycle Model (AOLCM) whose interrelationships and mechanisms allow the Army to provide forces that are properly organized, trained, and equipped to accomplish the operational missions assigned to the commanders in chief (CINC) of unified combatant commands. Understanding the AOLCM is critical to the Army's future leaders and managers.

Section II:
The Army's Roles and Missions

1-3. The Army's Constitutional role

The Constitution of the United States says that "we the people...provide for the common defense," that the Congress raises the Army, and that the president shall be the commander-in-chief. The United States Army exists to protect and defend the Constitution of the United States of America. The Army does this by deterring and, when deterrence fails, by achieving quick, decisive victory—on and off the battlefield—anywhere in the world and under virtually any conditions as part of a joint team. The Congress, by statute, has provided for a Secretary of Defense, Secretary of the Army, Chief of Staff of the Army, and Army missions

1-4. The Army's statutory missions and functions

The Army executes the will of the Congress by performing its functions of recruiting, organizing, supplying, equipping, training, servicing, mobilizing, demobilizing, administering, maintaining, repairing military equipment, and acquiring and maintaining real property for Army forces to comply with section 3062, Title 10 (Armed Forces), United States Code (10 USC 3062) which states—

> *"It is the intent of Congress to provide an Army that is capable, in conjunction with the other Armed Forces, of preserving the peace and security... of the United States... supporting the national policies... implementing the national objectives... and overcoming any nations responsible for aggressive acts that imperil the peace and security of the United States. [The Army] shall be organized, trained, and equipped primarily for prompt and sustained combat incident to operations on land... [and] is responsible for the preparation of land forces necessary for the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans, for the expansion of the peacetime components of the Army to meet the needs of war."*

1-5. The Army's societal role

A distinction exists between the Army as an institution and the Army as an organization. Both roles are critical in maintaining a strategic force capable of decisive victory.

a. The Army as an institution. The "institution" of the Army is its essence, traditions, history, and lineage. It includes leader development, doctrine, training, professionalism, integrity, and the Army's tradition of responsibility to the nation. The Army's enduring values flow from the American ideals embodied in the Constitution and Declaration of Independence. They guide the actions of soldiers as individuals and groups. Throughout American military history, these values have provided a firm foundation for military leaders and soldiers. They provide all soldiers with principles of conduct and standards of behavior that exemplify those ideals and values to which Americans subscribe. These values include—

(1) Courage, both physical and moral.

(2) Integrity.

(3) Candor.

(4) Competence.

(5) Commitment.

(6) Loyalty to the ideals of the nation, to one's unit, and to one's fellow soldiers.

(7) Personal responsibility.

(8) Fair treatment for all regardless of race, gender, religion, or national origin.

(9) Selfless service.

b. The Army as an organization. The Army at any point in time is the "organization." It includes units and table(s) of distribution and allowances (TDA) organizations, and soldiers in all components, civilians, family members, the defense industry, capabilities, and structure. The "organization" is highly visible at home and abroad. It serves the nation's peacetime interests and is ready to fight when called upon.

(1) *Core competencies.* Core organizational competencies, as depicted in Figure 1-1, are the quintessential constants that give the Army the competitive edge over potential adversaries. They adapt to changing situations and, in combination, have a synergistic effect on mission accomplishment. They are critical for successful mission execution and apply across all military operations. These competencies ensure the Army is—

(*a*) Trained, with the ability to fight as part of a joint or combined force.

(*b*) Versatile, with the ability to respond across the continuum of military operations.

(*c*) Deployable, with the ability to project combat power rapidly from the continental United States (CONUS) to any location where potential adversaries threaten U.S. national interests.

(*d*) Expandable, with the ability to constitute new forces in response to a deterioration in the international order or emergence of a major threat to U.S. interests.

(*e*) Capable of decisive victory, with the ability to win quickly with minimum casualties.

(2) *The six imperatives.* The Army's six imperatives support these core competencies and are the foundation for future success. When properly resourced and balanced, they coalesce in a trained and ready force. The imperatives are—

(*a*) Quality soldiers, trained, motivated, and challenged.

(*b*) Competent leaders, clear in their vision of the future, with fully developed combat skills.

(*c*) Challenging training, focused on realistic scenarios and oriented toward joint, combined, and coalition operations and contingency missions.

(*d*) Modern equipment that provides soldiers with the greatest available lethality and best technology.

(*e*) Force mix of Army civilians, Reserve, and Active forces that preserves essential warfighting capabilities in rapidly deployable units. The correct force mix also allows time for mobilization and training of follow-on and reconstituted units.

(*f*) Effective doctrine that accommodates joint, combined, and coalition maneuver-oriented, high tempo, and high technology warfare.

c. Coalescence of the Army as institution and organization. The Army maintains a relationship between the "institutional" Army, with its enduring values, and the "organizational" Army, the strategic force capable of decisive victory (see Figure 1-2). "Institutional" changes occur slowly through deliberate evolution and are indistinguishable to the public at large. The "organization" changes more rapidly and visibly to meet requirements presented by national and international realities. In maintaining the balance between capabilities and requirements in the "organization," the "institution" must not lose its enduring values. They are the foundation during periods of change and uncertainty. The challenge is to manage change, increase capability, maintain stability, and foster innovation.

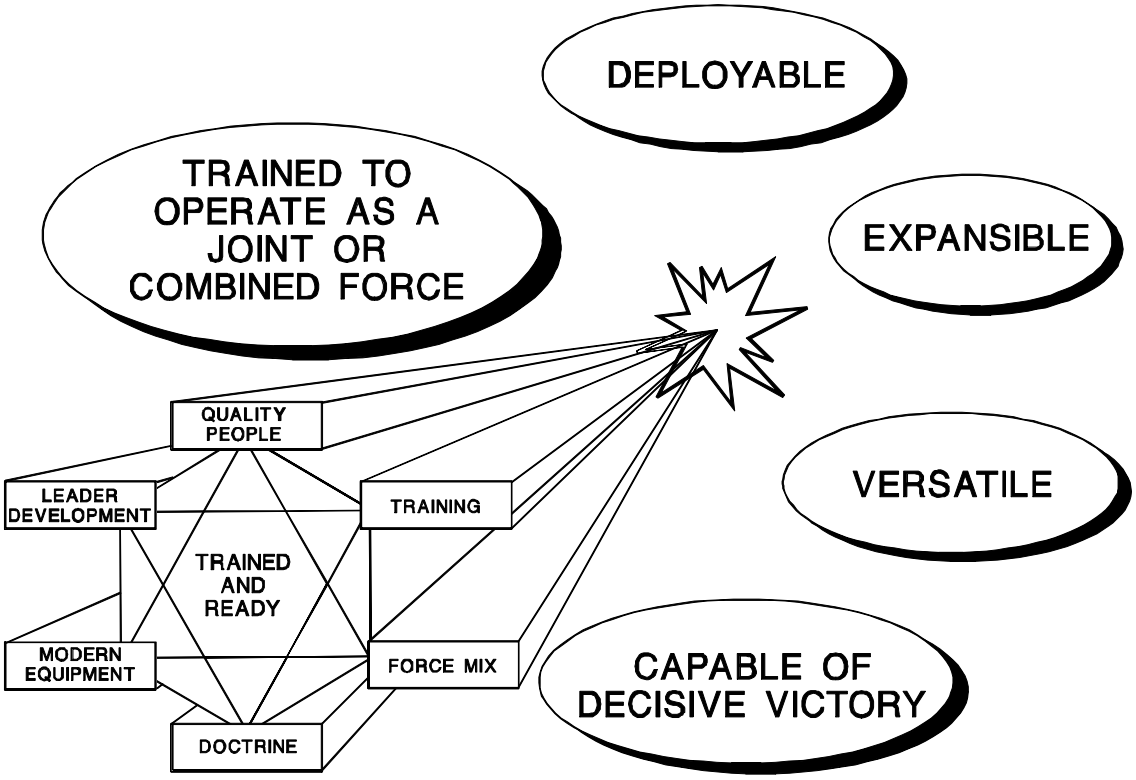


Figure 1-1. Core Competencies

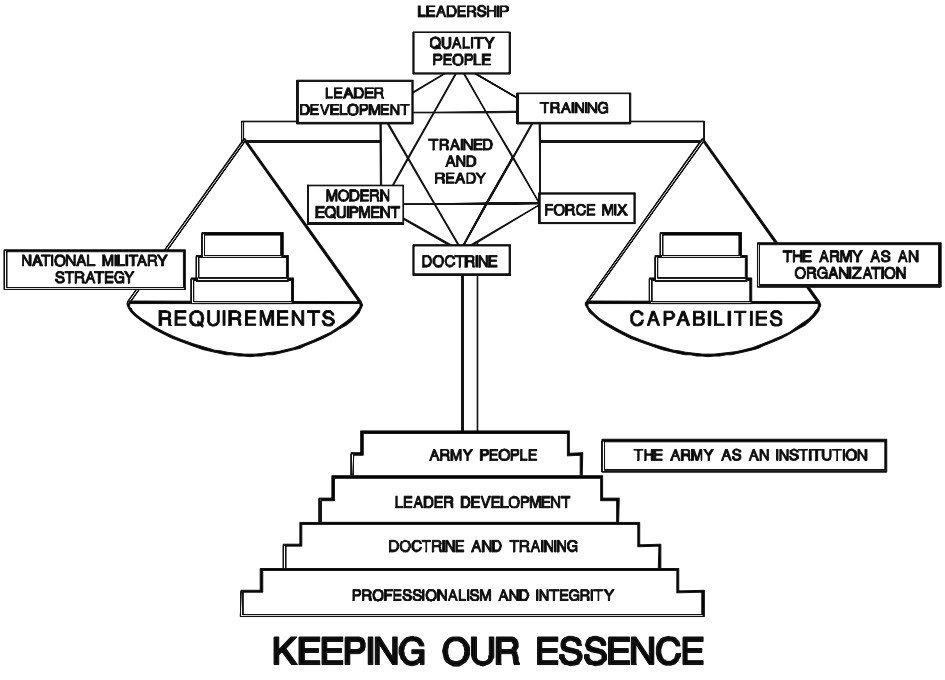


Figure 1-2. Maintaining the Balance

1-6. The Army vision

Essential to any organization's success is a clear understanding of organizational goals—the vision. Achievement of the Army's vision (see Figure 1-3) depends squarely on maintaining core competencies.

THE U.S. ARMY

TRAINED AND READY FOR VICTORY

A TOTAL FORCE OF QUALITY SOLDIERS AND CIVILIANS

- **A values-based organization**
- **An integral part of the Joint Team**
- **Equipped with the most modern weapons and equipment**
- **Able to respond to our nations needs**
- **Changing to meet the challenges of today...tomorrow...and the 21st century**

Figure 1-3. The Army Vision

Section III: Command, Leadership, and Management at the National Level

1-7. National command authorities

The President and the Secretary of Defense are the National Command Authorities (NCA). The National Security Council (NSC) supports the President, as commander-in-chief, with the integration of domestic, foreign, and military policies on National security.

1-8. The Department of Defense

The Department of Defense (DOD) includes the Office of the Secretary of Defense (OSD), the Joint Chiefs of Staff (JCS), the military departments, and the military services within those departments. It also includes the unified commands and other agencies established to meet specific requirements.

a. Roles of OSD and the Joint Chiefs of Staff. OSD and the JCS perform vital roles in the process of developing and implementing a National military strategy, defense resource management, and military operations. The Defense Planning Guidance (DPG) is the most authoritative statement of the National military policy. Prepared biennially within OSD, it is the link between planning and programming used by the Joint Chiefs of Staff and the military departments.

b. Pillars of defense. OSD establishes force planning guidance in five categories known as the "pillars of defense." In order of priority, they are—

(1) *Readiness.* This is the ability of forces to deliver the outputs for which they are designed. This includes the ability to man, equip, and train in peacetime and to mobilize, deploy, and fight in wartime.

(2) *Force structure.* This is the manpower and materiel resources of organizations tasked to perform missions in peace and war.

(3) *Sustainability.* This is the "staying power" of forces. It includes the ability to produce and deliver forces over prolonged periods.

(4) *Modernization and investment.* This is the ability to ensure our forces maintain a qualitative superiority in technology and the ability to incorporate new technology after proving its capability as a combat multiplier.

(5) *Infrastructure and overhead.* This is the ability to increase efficiency and redirect shrinking resources to our high quality forces by reducing infrastructure and overhead in all program areas.

c. The Planning, Programming, and Budgeting System.

(1) The Planning, Programming, and Budgeting System (PPBS) is a cyclic process for providing for current and future programs through three interrelated phases (planning, programming, and budgeting). It maintains consistency with national security objectives, policies, and strategies.

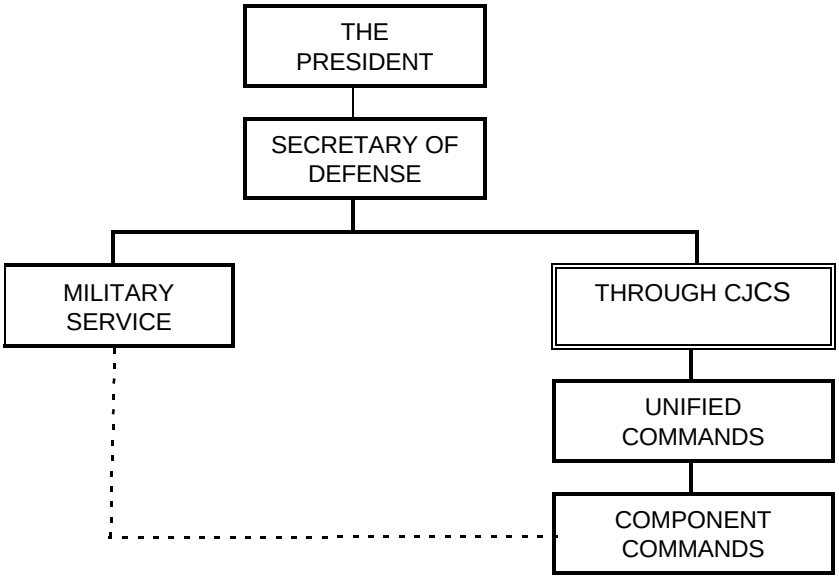
(2) DOD uses PPBS as its primary system for managing the departments' military functions. It facilitates budgeting in forces, systems, and programs rather than resource categories. It determines force, system, and program costs and compares alternatives in costs and benefits. In effect, it is the decision structure within which DOD determines its requirements and allocates constrained resources.

(3) The DOD PPBS is the primary formal strategic management system for building and maintaining the Future Years Defense Program (FYDP), the official record of major resource allocation decisions made by Secretary of Defense. PPBS progresses from a general articulation of the national military strategy by the JCS to specific organizations, manpower, material, training, and support of the forces necessary to carry out that strategy. The FYDP is the summary of programs developed within the PPBS.

1-9. The Joint Chiefs of Staff

The National Security Act of 1947 established the Joint Chiefs of Staff as the "principal advisors to the President and the Secretary of Defense." The Goldwater-Nichols DOD Reorganization Act of 1986 further specified that the Chairman, Joint Chiefs of Staff (CJCS), is the principal military advisor to the President, NSC, and Secretary of Defense rather

than the entire Joint Chiefs of Staff (see Figure 1-4). The role of the Chairman expanded in importance and influence since the passage of the 1986 Reorganization Act. The Chairman's statutory responsibilities include: providing strategic direction, preparing strategic plans, advising on joint program priorities, and assessing service composite programs and budgets. In consultation with the CINCs and other members of the JCS, the Chairman accomplishes these statutory requirements under the framework of the Joint Strategic Planning System.



UNIFIED COMMANDS:
US ATLANTIC COMMAND (USACOM)
US CENTRAL COMMAND (USCENTCOM)
US EUROPEAN COMMAND (USEUCOM)
US PACIFIC COMMAND (USPACOM)
US SPACE COMMAND (USSPACECOM)
US SPECIAL OPERATION COMMAND (USSOCOM)
US SOUTHERN COMMAND (USSOUTHCOM)
US TRANSPORTATION COMMAND (USTRANSCOM)
US STRATEGIC COMMAND (USSTRATCOM)

COMMAND SUPPORT
SUPPORT
ROLE OF CHAIRMAN, JOINT CHIEFS of STAFF

Public Law 99-433 (Goldwater-Nichols DOD Reorganization Act of 1986) specifies that the Secretary of Defense may assign to the Chairman, Joint Chiefs of Staff responsibility for overseeing the activities of the combatant commands. However, such assignment does not confer any command authority on the Chairman and does not alter the responsibility of the commanders of the combatant commands. Subject to the direction of the President, the commander of a combatant command—

- performs his duties under the authority, direction and control of the Secretary of Defense; and
- is directly responsible to the Secretary of Defense for the preparedness of the command to carry out missions assigned to the command.

Figure 1-4. Unified Command Structure

a. The Joint Strategic Planning System.

(1) The CJCS is charged by 10 USC with preparing strategic plans and providing for the strategic direction of the Armed Forces. The Joint Strategic Planning System (JSPS), as prescribed by CJCS Memorandum of Policy No. 7 (MOP 7), and modified by Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3137.01, provides the framework for strategic planning and strategic direction of the Armed Forces. Joint strategic planning begins the process that creates the forces whose capabilities are apportioned for theater operation planning.

(2) Within the Joint Staff, strategic planning is primarily the responsibility of the Strategic Plans and Policy Directorate, J-5; and the Force Structure, Resources, and Assessment Directorate, J-8, who use input from the Joint Staff, OSD, other DOD and Federal agencies, unified combatant commands, and the Services to assist in policy formulation, develop strategy, and provide force planning guidance. Primary responsibility for the management of the Joint Operations Planning and Execution System (JOPES), to include the review and approval of operations plans, resides with the Operational Plans and Interoperability Directorate, J-7; and Operations Directorate, J-3.

(3) The JSPS constitutes a continuing process in which documents or products are coherently

produced (see Figure 1-5). Some are developed concurrently. Key outputs of the JSPS include the National Military Strategy (NMS), Joint Planning Document (JPD), and the Joint Strategic Capabilities Plan (JSCP). Two closely related documents are produced by the Joint Requirements Oversight Council (JROC)/Joint War-fighting Capabilities Assessment (JWCA) process (defined and discussed below). They are the Chairman's Program Recommendation (CPR), and the Chairman's Program Assessment (CPA) (formerly part of the JSPS). The NMS, JPD, and CPR are provided as advice to the Secretary of Defense for use in preparation of the DPG.

(4) In the resulting DPG, the Secretary of Defense provides policy, articulates strategic objectives and the national military strategy, and provides force and resource guidance to the Services, other DOD agencies, and to the combatant commanders. Based on the DPG, the Services and DOD agencies prepare their program objective memorandums (POM). Using the CPA, the CJCS assesses the adequacy of the Service and DOD agency POMs. The CPA comments on the risk associated with the planned allocation of defense resources. The CPA evaluates how well POMs conform with the priorities established in strategic plans and the CINCs' requirements.

(5) The NMS, JPD, and CPR initiate the planning phase of the DOD PPBS. They provide CJCS advice to the NCA on the overall military strategy, fiscally-constrained force structure, and joint program priorities required to support U.S. National security objectives. Considering its impact on planning and programming, it is essential that CJCS advice be included in the formulation of the DPG.

(6) The JSCP provides strategic guidance, contingency taskings, and apportions major combat forces to combatant commanders for use in operational planning. Using the JSCP guidance, the CINCs prepare operation plans in accordance with the procedures of JOPES.

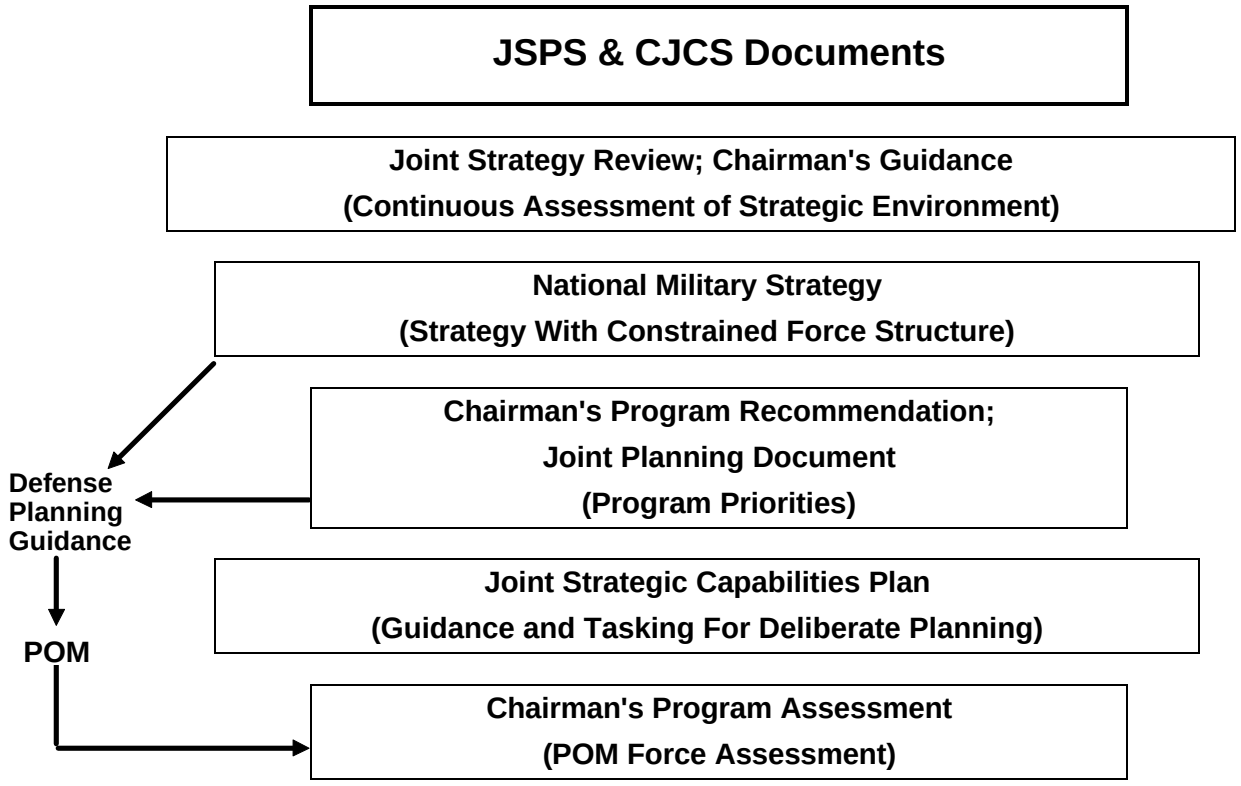


Figure 1-5. Joint Strategic Planning System

b. The Joint Strategy Review (JSR). The JSR is the continuous JSPS process for gathering information, raising issues, and facilitating the integration of the strategy, operational planning, and program assessments. Products of the JSR include Issue Papers, the Long-Range Vision Paper, and the JSR Annual Report. The JSR Annual Report recommends, as appropriate, changes to the NMS and guides the de-

velopment of the JPD. Approval of the JSR Annual Report is one of the means available to the CJCS to inject his guidance into the JSPS.

c. The Chairman's Guidance (CG). The CG provides the principal guidance to the Joint Staff and information to the Secretary of Defense, the CINCs, and the other members of the JCS regarding the framework for building the NMS. This guidance serves as a bridge between the initial assessments and conclusions reached during the JSR process and the specific processes that build the NMS, the JPD, and the JSCP. The Director, Strategic Plans and Policy, the Joint Staff (J5) recommended CG is presented in the JSR Annual Report and when approved, provides his initial guidance. The CG may also be promulgated via other means anytime during the JSR process, such as the CINCs Conference.

d. Joint Strategic Planning Documents.

(1) *The National Military Strategy*. This is the first formal JSPS document and fulfills the chairman's 10 USC responsibility to "...assist the President and the Secretary of Defense in providing strategic direction of the Armed Forces." It is reviewed annually during the JSR and revised or republished as needed. It provides the advice of the CJCS, in consultation with the other members of the JCS and the CINCs, to the President, Secretary of Defense, and the NSC, as to the recommended military strategy and fiscally-constrained force structure required to attain the national security objectives. The NMS consists of a contextual setting, an updated intelligence appraisal, descriptions of ways to achieve national security objectives, a description of the strategic landscape, and the foundations and principles upon which the strategy is based. Additionally, during NMS development, force levels required to support the strategy, with acceptable risk, are identified. The NMS is then forwarded to the President through the Secretary of Defense. The NMS is developed as required by changes in the recommended strategy.

(2) *The Joint Planning Document.* This document supports the NMS by providing concise programming priorities, requirements or advice to the Secretary of Defense for consideration during preparation of the DPG. It is published in seven stand–alone volumes: Intelligence; Nuclear; C4 Systems; Future Capabilities; Mapping, Charting, and Geodesy; Manpower and Personnel; and Logistics. The JPD and the NMS are forwarded to the Secretary of Defense for his review. Both documents provide supporting documentation to the Secretary of Defense for his consideration during the preparation of the DPG.

(3) *The Joint Strategic Capabilities Plan.* This plan provides guidance to the CINCs and to the Chiefs of Staff of the Services to accomplish tasks and missions based on current military capabilities.

(*a*) The JSCP apportions resources to the CINCs, based on military capabilities resulting from completed program and budget actions. The JSCP provides a coherent framework for capabilities based military advice provided to the NCA.

(*b*) The JSCP is the principal vehicle by which the CINCs are tasked to develop operations plans, concept plans and concept summaries for global and regional contingencies. The JSCP gives strategic planning direction for deliberate plans to be developed over a period of 18 to 24 months. The JSCP supports and implements, through CINCs' operations plans and the NMS, the NCA's Contingency Planning Guidance (CPG).

(*c*) The JSCP apportions major combat forces expected to be available during the planning period for both Active and Reserve component forces found under various conditions of mobilization. These apportionments are incorporated into CINC theater plans.

(*d*) The JSCP provides the CINCs a threat estimate likely to impact the operational planning and force apportionment during the planning period.

e. Joint Requirements Oversight Council Process. The JROC consists of the Vice Chairman, Joint Chiefs of Staff (VCJCS), the Vice Chiefs of Staff of the Army and Air Force, Vice Chief of Naval Operations, and the Assistant Commandant of the Marine Corps. Since April 1994, the CJCS expanded the authority of the JROC to assist in building senior military consensus across a range of issues.

(1) First, the JROC's agenda broadened to include greater initiative in defining military requirements with an expanded focus on the planning, programming and budgeting process. The JROC oversees the requirements generation process for major defense acquisition programs (MDAP).

(2) Second, the JROC activity has been increasingly linked to a dialogue with CINCs on warfighting requirements.

(3) Third, the JROC established, as a new analytical forum for deliberations, the Joint Warfighting Capabilities Assessments (JWCA). These assessments cover ten interacting warfare areas.

(4) Fourth, the JROC increased its direct integration in PPBS. The most significant effort has

involved the production of the Chairman's two documents—the CPA (with a changed emphasis) and the CPR (a new document).

f. JROC Review Board. To assist the integration and coordination effort of the JWCA, the JROC created the JROC Review Board (JRB). The JRB consists of the Director, Force Structure, Resources, and Assessment Directorate, the Joint Staff (J8), and Service Deputy Operations Deputies. The JRB assists the JROC in overseeing the requirements generation process and the JWCA process. The JRB reviews JWCA insights, findings, recommendations, and provides both guidance and direction.

g. Joint War-fighting Capabilities Assessments.

(1) JWCA teams, each sponsored by a Joint Staff directorate (Director), examine key relationships and interactions among joint war-fighting capabilities and identify opportunities for improving war-fighting effectiveness. The teams consist of war-fighting and functional area expertise from the Joint Staff, CINCs, Services, OSD, DOD agencies, and others as deemed necessary.

(2) JWCA findings are presented to the JRB, and then to the JROC for consideration. The JROC then is instrumental in helping the CJCS forge consensus and explore alternatives. The CJCS draws advice from the JROC, the other JCS members, and the CINCs, to fulfill his statutory responsibility to provide advice to the Secretary of Defense regarding program recommendations and budget proposals.

(3) The CPR and CPA form the basis for fulfilling the CJCS's responsibilities. Designed to offer the CJCS's personal viewpoint, the CPR and CPA are supported by both the deliberate planning process and JWCA. Both are produced and delivered separately from other PPBS and JSPS documents.

h. Chairman's Documents.

(1) *The Chairman's Program Recommendation (CPR).*

(*a*) The CPR provides the CJCS's personal recommendation to the Secretary of Defense for his consideration in the DPG. The recommendations are the CJCS's views of programs important to creating or enhancing joint war-fighting capabilities.

(*b*) The CPR is delivered early in the POM cycle. It provides input to programming and budgeting and is provided as advice to the Secretary of Defense for use in preparing the DPG. The CPR delineates the issues the CJCS deems critical priorities and performance goals for the Secretary to consider. The Secretary considers the CJCS's recommendations, and then publishes the DPG.

(*c*) The CPR recommendations are not restricted to the FYDP. Examining and recommending program alternatives within joint war-fighting capability areas requires careful scrutiny of empirical data, appropriate application of analytical processes, and sound military judgment. The CPR focuses upon specific recommendations that will enhance joint readiness, promote joint doctrine and training, and satisfy joint war-fighting requirements.

(2) *The Chairman's Program Assessment.*

(*a*) This assessment contains the CJCS's alternative program recommendations and budget proposals for consideration by the Secretary of Defense in refining the defense program and budget. These adjustments are intended to enhance joint readiness, promote joint doctrine and training, and to reflect strategic and CINC priorities. The CJCS reviews the POMs of the Services and other DOD agencies and the preliminary program decisions.

(*b*) The CPA is delivered late in the Program review cycle, and provides the CJCS assessment of composite Services' and DOD agencies' POMs adequacy. The CPA evaluates the extent that the POMs conform to strategic priorities and CINC requirements. The CJCS comments on the risks associated with the planned allocation of DOD resources. When applicable, the CJCS makes recommendations to the Secretary of Defense on specific alternative programs and budget proposals based upon personal assessment of current and future joint war-fighting capabilities.

i. Key JSPS related documents.

(1) *Defense Planning Guidance.* The DPG furnishes programming and fiscal guidance to the military departments for development of POMs. It includes major planning issues and decisions, strategy and policy, the Secretary of Defense's program planning objectives, the Defense Planning Estimate, and the Illustrative Planning Scenarios. The DPG is a major link between the JSPS and PPBS.

(2) *Contingency Planning Guidance.* The CPG provides written policy guidance for contingency planning. The CPG focuses the guidance provided in the NMS and DPG and directly impacts the JSCP.

j. JSPS in summary. Overall, the JSPS is a flexible and interactive system intended to provide supporting military advice to the DOD PPBS. It also provides strategic guidance for use in the JOPES. Through the JSPS, the Joint Chiefs of Staff review the national security environment and national security objectives; evaluate the threat; assesses current strategy and existing or proposed programs and budgets; and propose military strategy, programs, and forces necessary to achieve national security objectives. It accomplishes this in a resource-limited environment, consistent with policies and priorities established by the President and the Secretary of

Defense. The JSPS process permits the JCS and the CINCs to participate in the development of every JSPS document.

1-10. Joint Operation Planning and Execution System

The JOPES is the command and control system required by DOD regulation for all joint conventional operational planning and execution. JOPES also includes theater-level nuclear and chemical plans and addresses mobilization, deployment, employment, and sustainment mission areas. It is the principal system for translating and implementing policy decisions of the NCA and the JSPS into plans and orders for operations in support of national security policy. It also provides joint operational requirements for analysis in the PPBS for resource decisions that affect the National Security Council System (NSCS) and JSPS.

Section IV: The Army Environment

1-11. Army leadership

The leadership of the Department of the Army (DA) is responsible for the Army's strategic planning and for assisting in joint strategic planning. The senior leadership nucleus includes the Secretary, the Chief of Staff, the Undersecretary, and the Vice Chief of Staff. The Army executes its statutory missions by raising, provisioning, sustaining, maintaining, and training Army forces. These forces provide the CINCs of the unified combatant commands with military forces for operations.

1-12. The Army Planning System

The Army Planning System (APS) starts the Army's strategic planning process, building on the NMS. It determines force requirements and objectives and establishes guidance for the allocation of resources for the execution of Army roles and missions in support of national security and policy objectives. Strategic planning provides direct support to the DOD PPBS and JSPS and indirectly serves as a guide for the later development of Army programs and budgets.

1-13. The Army Planning, Programming, Budgeting, and Execution System

a. Army requirements descend not only from the statutory functions, but also from strategic and operational requirements derived from the planning element of DOD's PPBS. DOD planning translates into the planning phase of the Army's Planning, Programming, Budgeting, and Execution System (PPBES).

b. The PPBES is the Army's primary strategic management system used to allocate and manage resources. Its objectives are to—

(1) Follow the NMS in sizing, structuring, manning and training of Army forces.

(2) Obtain required forces, manpower, materiel, and dollars.

(3) Allocate forces, manpower, materiel, and dollars among competing demands according to Army resource allocation policies and priorities.

(4) Evaluate execution of the program and budget to achieve intended purposes and adjust resource requirements based on feedback.

c. The PPBES provides for a progression from national security objectives, policies, and strategies to the development of force structure and programs within resource constraints and as the basis for the six-year period of the FYDP. Finally, the PPBES leads to preparation, execution, and review of the budget. A detailed discussion of the PPBES is found in Chapter 12.

1-14. The Army Mobilization and Operations Planning and Execution System

The Army Mobilization and Operations Planning and Execution System (AMOPES) provides the structure and process for Army participation in JOPES. It covers the full course of military action to include mobilization, deployment, sustainment, force expansion, redeployment, and demobilization. The goal of AMOPES is to ensure that the Army can support the combat operations of the combatant commanders. AMOPES provides the linkage between war planning under JOPES and mobilization planning as directed by DOD and the JCS. It prescribes the Army crisis action system for managing the execution of mobilization and operation plans.

1-15. The Army Mobilization Plan

a. The Army Mobilization Plan (AMP) is a collection of mobilization plans of the major Army commands (MACOM). The purpose of Army mobilization planning is to provide the resources required to support various operation plans (OPLAN). This includes mobilizing units, manpower, and materiel required for implementation of an OPLAN, as well as the resources required to sustain the operation.

b. The United States Army Forces Command (FORSCOM) mobilization plan, with its associated Mobilization Planning and Execution System (MPES), details the time-phased flow of mobilizing Reserve Component units from home station to their mobilization stations.

c. The U.S. Army Training and Doctrine Command (TRADOC) training base expansion plan (TBEP) provides installations and training base

augmentation units in the Army with guidance on training base expansion activities.

1-16. The TRADOC requirements process

a. The TRADOC requirements process identifies the capabilities required to attain the vision of the future Army. It receives input from the warfighting CINCs' Integrated Priority Lists (IPL) and the Army component commanders. The TRADOC Requirements Process considers the domains of doctrine, training, leader development, organizations, and materiel (including science and technology) which focus on soldiers (DTLOMS).

b. The objectives of TRADOC requirements process are to—

(1) Develop the Army's vision of future battlefields, functions, and tasks.

(2) Identify required capabilities to execute the vision.

(3) Influence PPBES consistent with Army priorities.

(4) Maintain research, development, and acquisition (RDA) program stability.

c. After determining strategic, operational, and tactical battlefield requirements, and requirements derived from statutory missions, the Army must devise and execute rational solutions. DOD and the Army make these decisions and provide the resources for their execution through the DOD PPBS and Army PPBES.

Section V: The Army Organizational Life Cycle Model

1-17. Management of change

Change requires the Army to remain capable in an environment of technological advancements, internal management variances, and a world in turmoil. The management of change is an evolving process that must have focus and methodology to support the Army's vision, imperatives, core competencies, and enduring values.

1-18. The Army organizational life cycle model

a. Each resource required by an organization is somewhere within a life cycle model from its development to its ultimate separation or expenditure. The AOLCM is depicted in Figure 1-6.

b. The norm of the AOLCM is constant change. The need exists to resource and manage this change. Any resource will always be in some functional stage, with all of these functions occurring concurrently in a never-ending process.

c. The fundamental output of the AOLCM is combat-ready units progressing through—

(1) *Force development.* Force development is the process of translating Army missions and functions into materiel and organizational requirements, time-phased programs, and structure within available resources. It is the initiating process of the AOLCM.

(2) *Acquisition.* Acquisition is an initial procurement activity that results in an asset being brought under military control. This activity includes research and development (R&D), test and evaluation (T&E), and military construction (MILCON) programs.

(3) *Training*. Training is the vehicle for orderly transition from a civilian to a military environment. In the AOLCM, this training establishes the entry-level skill baseline for all soldiers.

(4) *Distribution.* Distribution is the process of assigning or transferring people or materiel from the wholesale level to the user.

(5) *Deployment.* Deployment is the movement of organizations, people, and things in accordance with the worldwide commitments of the Army.

(6) *Sustainment.* Sustainment is the process of using acquired resources to maintain and logistically support the Army.

(7) *Development.* Development is the process of constantly improving soldier's skills and experience through progressive assignments, education, and training. Units develop through collective training.

(8) *Separation.* Separation is the process of removing personnel and materiel from active service. People may separate from military service voluntarily or involuntarily due to reduction in force actions, mandatory retirement, or medical or disciplinary reasons. Materiel is removed through the Defense Reutilization and Marketing Office (DRMO) or through foreign military sales (FMS).

d. Essential to the functioning of the AOLCM model are the critical inputs of resources and leadership. Resources, including time, money, people, materiel, technology, and information are needed to energize the system. Command, management, and leadership provide necessary control and direction through the Army's operating processes for the development and sustainment of combat-ready units.

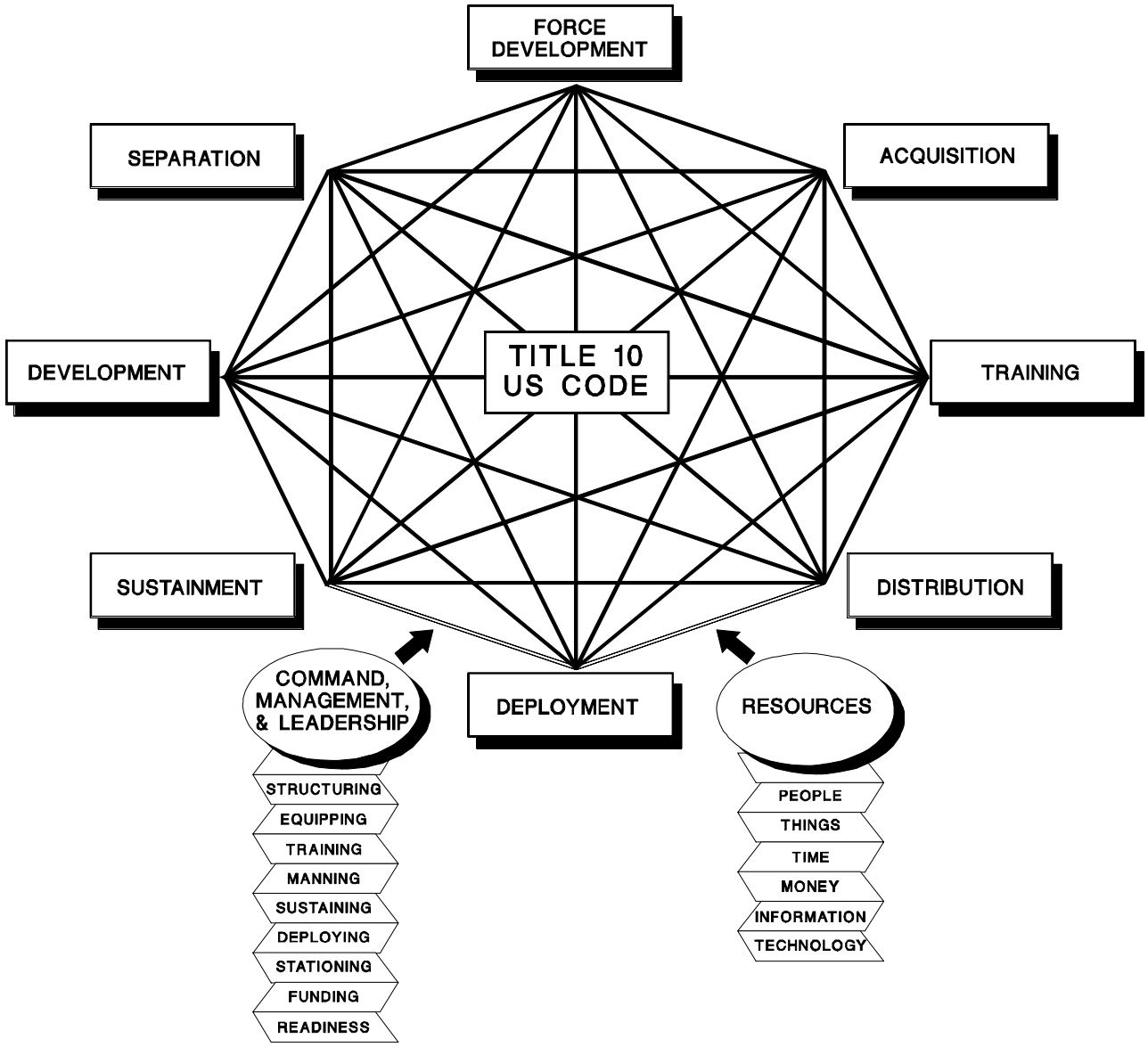


Figure 1-6. Army Organizational Life Cycle Model

Section VI: Operating Processes

1-19. Strategic and operational requirements determination process

The strategy, fiscal guidance, and OPLANs and contingency plans (CONPLANs) flow from DOD into the Army resourcing process.

1-20. Research, development, and acquisition process

The requirements for new materiel flow to the materiel developer, who executes the Life Cycle System Management Model (LCSMM), which provides materiel systems.

1-21. Force development process

Requirements for new or changed organizations or new or improved materiel systems initiate the force development process.

1-22. Resource allocation and distribution process

The national strategy, fiscal guidance, and force structure guidance establish the requirement to distribute resources, in priority, to achieve the highest force readiness and to accept risk where rational.

1-23. Battlefield requirements determination process

The TRADOC Requirements Process identifies required capabilities and develops solutions in terms of DTLOMS. The materiel developer and combat developer translate the requirements for materiel systems.

1-24. Manpower allocation and distribution process

Based on priorities and valid authorizations, personnel are acquired, trained, and distributed to units.

1-25. Materiel allocation and distribution process

Based on priorities and valid authorizations, materiel (acquired through the RDA process) is allocated and distributed to units.

1-26. Battle laboratories (labs)

Battle Labs are a means to develop capabilities for a force projection Army that is technologically superior. For a contingency oriented, power projection Army it is imperative to maintain a technologically superior force. Tied to our evolving battlefield dynamic concepts and war-fighting doctrine in FM 100-5, Battle Labs use the battlefield as a reference. By encouraging experimentation via simulations or prototypes, Battle Labs determine requirements in the areas of DTLOMS (see Figure 1-7). They serve as a practical mechanism for working with new ideas and assessing new capabilities provided by advanced technology. The eight Battle Labs and their locations are-

a. Early Entry, Lethality, and Survivability; Fort Monroe, Virginia.

b. Depth and Simultaneous Attack; Fort Sill, Oklahoma.

c. Mounted Battlespace; Fort Knox, Kentucky.

d. Dismounted Battlespace; Fort Benning, Georgia.

e. Battle Command; Fort Leavenworth, Kansas; Fort Huachuca, Arizona; Fort Gordon, Georgia.

f. Combat Service Support; Fort Lee, Virginia.

g. Maneuver Support; Fort Leonard Wood, Missouri.

h. Air Maneuver; Fort Rucker, Alabama.

Section VII: Summary

The Army operates within the national security structure as a strategic force. The nature of the Army's roles, functions, and missions implies that change will occur constantly and that management of change is vital to minimizing turbulence while increasing force capability in a coordinated manner. This management of change produces and maintains combat ready units that are capable of conducting prompt and sustained operations on land, against any threat on any battlefield, and winning decisively.

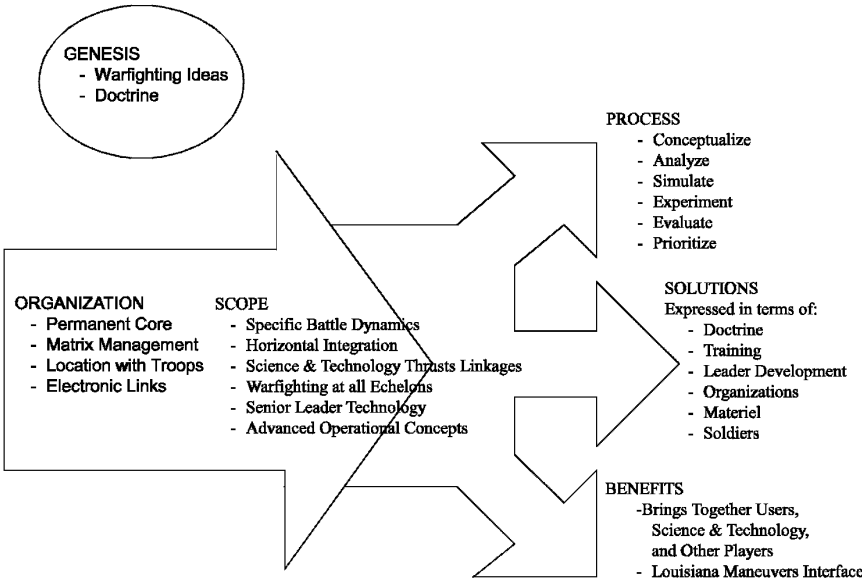


Figure 1-7. Battle Lab Approach

Chapter 2
How the Army Intends to Fight

Section I:
Introduction

2-1. Doctrine

The Army fights according to doctrine derived from a hierarchy of concepts. Doctrine is the Army's collective view of how it intends to fight; it provides a basis for change. It gives the Army a common language and purpose and serves to unite the actions of many diverse elements into a team effort. Doctrine also influences the development of organizations and weapon systems by establishing potential functions and limits of employment.

2-2. Force projection

Power projection is central to U.S. national strategy. The Army contributes to this strategy as part of a joint force through force projection. Army components of joint forces must have the capability to alert, mobilize, deploy, and conduct operations rapidly anywhere in the world. Force projection applies to the total Army within and outside CONUS. Army organizations are designated forward presence, crisis response, initial reinforcement, follow-on reinforcement, and reconstitution forces.

Section II:
The Role and Development of Doctrine

2-3. The role of doctrine

a. Doctrinal Principles. Doctrine represents the fundamental principles by which military forces guide their actions in support of national objectives. It is the statement of how the Army fights campaigns, major operations, battles, and engagements; influences events in operations other than war (OOTW), and deters actions detrimental to national interests. The intent is to ensure the availability of a force capable of decisive victory anywhere in the world.

b. Joint and combined operations. Army warfighting doctrine reflects the nature of modern warfare. Guided by strategic policy, it applies the principles of war, the Army's basic tenets, and combat power dynamics to current and future battlefields. It is inherently a joint doctrine that recognizes the teamwork required of all the services and by allies. It considers the extension of the battlefield in time, space, and purpose through all available resources and campaign design. In land warfare, ground force units, in coordination with members of a joint and/or combined team, are the decisive means to the strategic ends.

c. The role of technology. Doctrine will develop an understanding of the technological potential of the age and its effects on methods of Army operations. Doctrine seeks to be sufficiently broad and forward looking to rapidly accommodate major technological opportunities to give soldiers a battlefield advantage. Resources and force dispositions— themselves reflective of strategy—also contribute to the development of doctrine.

d. The role of the threat. Doctrine seeks to meet the challenges of the uncertain threat facing the Army by providing guidance to deal with a range of threats. It reflects the strategic context in which Army forces will operate and incorporates the wisdom of the Army's collective leadership in establishing a guide to action in war and OOTW.

e. Doctrinal specificity. Doctrine provides a framework to foster initiative and freedom of action, creativity, and independent decisions. Doctrine and supporting tactics, techniques, and procedures (TTP) should only limit the commander's freedom of action to the extent necessary to ensure the application of doctrinal consistency, compliance, and sound application of risk assessment and management techniques.

f. Applicability. Doctrine is authoritative but requires judgment in application. It is a statement of principles on "how to think," not "what to think." While sufficiently definitive to guide specific operations, it must remain adaptable to address diverse and varied situations worldwide.

g. Scope. Capstone manuals and principal proponent manuals focus on doctrine. All other doctrinal literature emphasizes TTP.

(1) Tactics describe the application of doctrinal principles. Tactics portray how units operate successfully. Techniques and procedures provide methods to perform assigned missions and functions; they ensure uniformity of action between organizations and relate to current organizations and equipment.

(2) Additionally, organizations develop tactical standing operating procedures (TSOP) to standardize tasks and functions supporting tactical operations for like units focused on organizations, equipment, reports, support, and command and control. Standard procedures apply unless modified based on the commander's assessment of mission, enemy, terrain, troops, and time available (METT-T).

2-4. Conceptual foundation of doctrine

Concepts provide the vision and required capabilities for the evolution of the Army. They describe the objective force and provide a basis for the prioritization of capabilities required. Concepts serve as the basis for Battle Laboratory and branch proponent analyses and focus the development of future doctrine and technical efforts. Various concepts build required capabilities for deployment and employment of Army forces across the operational continuum:

a. Umbrella concepts derive from DOD and Headquarters, Department of the Army (HQDA) planning documents, historical perspectives, lessons learned, threat assessments, and technology forecasts. Umbrella concepts provide top-down conceptual guidance for all subordinate concepts.

b. Battle dynamic concepts describe required capabilities within a battle dynamic. These concepts flow from the umbrella concept and other extant guidance. Battle dynamic concepts provide conceptual guidance to branch proponents. Battlefield dynamics are the interrelationships of time, space, and forces. In aggregate, battle dynamics focus on five sectors:

(1) Early entry, lethality, and survivability.

(2) Depth and simultaneous attack.

(3) Battle space (mounted/ dismounted).

(4) Battle command.

(5) Combat service support.

c. Operational concepts describe required combat, combat support, and combat service support capabilities. These concepts derive from battle dynamic concepts and from the umbrella concepts.

d. Organizational concepts describe how organizations accomplish doctrinal tasks and missions.

e. Technology concepts leverage technology to enhance future capabilities. These concepts describe potential technological applications to solve a projected operational problem or to take advantage of existing opportunities.

2-5. Sources of doctrinal change

a. Doctrine derives from a variety of sources and is revised as these sources change. Doctrine is evolutionary to ensure the force keeps pace with the threat, national military strategy, technology, and lessons of warfare. Causes for revisions include combat lessons learned, ideas from the war-fighting CINCs, and exercises.

b. Changes in doctrine affect how the Army equips, organizes, and trains. New or changed doctrine cannot be isolated within a single type of organization. As changes occur, they affect organizations at different force levels: brigade or regiment, division or corps. To be effective, doctrine must be executable at operational and tactical levels throughout the Army.

c. Any change in doctrine will require leaders and soldiers at all levels to adopt new ways of thinking. Change must start with the senior leadership. Impending doctrinal changes must establish a common understanding of changes. Discussions of doctrine will surface issues that require resolution and set the strategy for implementation.

d. The introduction of new doctrine and materiel into organizations begins with doctrine and tactics training (DTT) together with new equipment training (NET) and new organization training (NOT). A unit's combat readiness validates the incorporation of the doctrinal change. Unit training accomplishes the sustainment of change.

2-6. Validation of doctrine

Once doctrine has been developed, staffed, and approved, the implementation and evaluation phase begins. The evaluation of doctrinal changes occurs under operational conditions at the appropriate force level. It occurs by conducting tests during focused rotations at the combat training centers or during Army, joint, or combined exercises.

Section III: Fundamentals of Army Operations

2-7. The range of military operations

The United States Army exists to protect and defend the Constitution of the United States. It does that by deterring war, and, if deterrence fails, by providing Army forces capable of achieving decisive victory as part of a joint team on the battlefield— anywhere in the world and under virtually any conditions. To these ends, the Army relies on its Total Force—Active Component, Reserve Components, and civilians—acting in concert with the other services and the military forces of our allies to conduct operations. The total force policy helps gain public support for operations requiring force projection designed to achieve strategic aims in diverse environments. The Army classifies its activities as war and OOTW.

a. War. In war, the Army, as part of a joint team, applies decisive force to fight and win with minimum casualties. War may be of a limited or general nature. In war, the strategic goal is to conclude hostilities on terms favorable to the U.S. and its allies and to return to peacetime as quickly as possible.

b. OOTW. Army forces must prepare to conduct activities during peacetime and conflict that may or may not involve armed clashes between two organized forces. During peacetime, the U.S. attempts to

influence world events through diplomatic actions that routinely occur between nations. For the Army, typical peacetime operations include counter drug, disaster relief, civil support, peace building and nation assistance. Conflict is characterized by hostilities to secure strategic objectives. During conflict, the goal is to deter war and resolve hostilities on terms favorable to the United States. Military operations during conflict are combat or noncombat. Strikes and raids, peace enforcement, support to insurgency, antiterrorism, peacekeeping, and noncombatant evacuation operations are examples.

2-8. The levels of war

Basic to the Army's doctrine is an appreciation of the levels of war--doctrinal perspectives that define the wide range of operations and links tactical actions and strategic objectives. The levels of war are defined more by the result of their outcome than they are by the echelon of involvement—normally, the higher the echelon the higher the level of war. There are no limits or boundaries between the strategic, operational, and tactical levels. These levels apply not only to war, but also to OOTW:

a. The strategic level is both worldwide and regionally oriented. Strategy concerns itself with national, alliance, or coalition objectives. The theater commander has both a theater strategy and campaign plan that achieve the strategic objective.

b. The operational level provides the vital link between strategic aims and tactical employment of forces. At the operational level, military forces attain strategic aims through the design, organization, and conduct of subordinate campaigns and major operations. Operational commanders set the terms of battle and exploit the results of battles and engagements.

c. The tactical level of war concerns the execution of operations of immediate consequence to the forces in contact. On the battlefield, the primary focus of the tactical commander is on winning battles and engagements. Tactical level commanders depend on their higher commanders to move them effectively in and out of battles and engagements.

2-9. Principles of war and tenets of operations

An understanding of the Army's doctrinal foundations serves as the basis for operating successfully across the full range of possible operations. These are the principles of war and the tenets of Army operations. The nine principles of war provide general guidance for the conduct of war at the strategic, operational, and tactical levels. They are the enduring bedrock of Army doctrine. The nine principles of war are: objective, offensive, mass, economy of force, maneuver, unity of command, security, surprise, and simplicity. The Army's success on and off the battlefield depends on its ability to operate in accordance with five basic tenets: initiative, agility, depth, synchronization, and versatility.

2-10. The combined arms concept

The Army employs three general types of combat forces: heavy, light, and Special Operations Forces (SOF). Army forces fight as combined arms teams. The combined arms team strives to conduct fully integrated operations within available time, space, and resources.

2-11. Rules of engagement

As a disciplined force subordinate to political authority, the Army conducts warfare according to established rules of engagement (ROE) and international laws. The Army expects all of its units to fight within constraints specified by higher authority. Army forces apply the combat power necessary to ensure victory, but are careful to limit unnecessary death and destruction. Military necessity justifies objectives attained through appropriate and disciplined use of force.

2-12. The dynamics and functions of combat power

Four primary elements—maneuver, firepower, protection, and leadership—combine to create combat power and the ability to fight. Winning in battle depends on an understanding of the dynamics of combat power and their proper integration and synchronization to ensure defeat of the enemy. Individual combat functions build and sustain combat power. The combat functions consist of the following—

a. *Intelligence.* Gathering and analyzing information on the environment of operations and the enemy.

b. *Maneuver*. Creating the conditions for tactical and operational success through the direct or indirect application of combat power.

c. *Fire support.* Synchronizing fire with maneuver. It includes the coordinated employment of fires of armed aircraft, land- and sea-based fire systems, and electronic warfare systems against ground targets.

d. *Air defense*. Protecting the force from air attack.

e. *Mobility and survivability*. Preserving and protecting the force from weapon effects and natural occurrences.

f. *Logistics*. Providing the physical means with which the force operates.

g. *Battle command.* Visualizing friendly and enemy forces in time, space, and purpose and formulating concepts of operation to accomplish specified and implied missions.

Section IV:
Force Projection Operations

2-13. Stages of force projection operations

Force projection operations follow a general sequence, although stages overlap in time and space. For instance, mobilization and deployment are continuous and may occur simultaneously or sequentially. Force projection operations include the following stages—

a. Mobilization stage. This is the augmentation of Active Component capability in preparation for war or national emergency. It includes activating all or part of the Reserve Components as well as assembling and organizing personnel, supplies, and materiel. The mobilization system includes five levels:

(1) Selective mobilization.

(2) Presidential selected reserve call-up.

(3) Partial mobilization.

(4) Full mobilization.

(5) Total mobilization.

b. Predeployment stage. Activities in this stage ensure units prepare to execute operations based upon their design capability.

c. Deployment stage. This stage requires forces to use strategic assets and host nation support, if available, to move to the area of operations. Force mix, combat capability, and sustainment are responsive to effect changes during this operation.

d. Force Entry stage. Operations in this stage may be in direct support of host nation or forward presence forces. Conditions may require entry under opposed or unopposed conditions.

e. Operations stage. This stage may include the full range of combat as well as OOTW.

f. War Termination and Post-conflict Operations stage. This may include restoring order, reestablishing the host nation's infrastructure, and preparing forces for redeployment.

g. Redeployment and Reconstitution stage. This stage removes forces no longer required for post conflict operations, rebuilds unit integrity, and accounts for soldiers and equipment.

h. Demobilization stage. This is the process by which units, individuals, and materiel transfer from active to Reserve status.

Section V:
Summary

Concepts provide the underpinning for determining battlefield requirements that result in new or changed doctrine, training, leader development, organizations, materiel and focuses on soldier (DTLOMS) needs. These changes address solutions to battlefield needs that form the operational capability to enable the Army to accomplish its force projection mission.

Chapter 3
The Reserve Components

Section I:
Introduction

3-1. Two components

Chapter 1003, title 10, United States Code (10 USC), identifies the Army National Guard of the United States (ARNGUS) and United States Army Reserve (USAR) as the Reserve Components (RC) of the Army. The RC, Active Army and civilian workforce comprise the Total Army.

3-2. The Army National Guard

The Army National Guard (ARNG) is the state militia, normally controlled by governors of the states and several territories. The ARNG is also a federal Reserve and reports to the Department of the Army when Federalized during national emergencies. It supports both Federal and state governments and deploys as a state or Federally activated force to ensure domestic tranquility.

3-3. The U.S. Army Reserve

The USAR is a major element under the Department of the Army. Public law limits the domestic role of the USAR and Active Army.

Section II:
Reserve Component Structure

3-4. RC statutory foundation

a. Section 10102, 10 USC, identifies the RC purpose to provide trained units and qualified persons available for active duty in time of war, national emergency, or as national security requires. Legal provisions specific to the ARNG are in title 32, United States Code (32 USC).

b. The RC role has expanded from wartime augmentation to an integral part of the Total Army force. Today's Army requires the RC to meet any major contingency.

3-5. RC composition

The RC includes the Ready Reserve, the Standby Reserve, and the Retired Reserve. Figure 3-1 summarizes the categories of the Army Reserve.

a. *The Ready Reserve.* The Ready Reserve consists of military members of the National Guard and the Army Reserve, organized in units, or as individuals, liable for recall to active duty to augment the Active Army in time of war or national emergency. The Ready Reserve is the Selected Reserve, Individual Ready Reserve and the Inactive National Guard.

CATEGORY	RESERVE OF THE ARMY	STATUS
Ready Reserve	SELECTED RESERVE	Active
	INDIVIDUAL READY RESERVE	Active
	INACTIVE ARMY NATIONAL GUARD	Inactive
Standby Reserve	STANDBY RESERVE (USAR only)	Active/ Inactive
Retired Reserve	RETIRED RESERVE (USAR only)	Retired

Figure 3-1 . Categories of the Army Reserve

(1) *The Selected Reserve.* The Selected Reserve consists of Ready Reserve units and individuals designated by the Army and approved by the Chairman, Joint Chiefs of Staff, as so essential to initial wartime missions that they have priority over all other Reserves (10 USC 10143). All Selected Reserves are in an active status.

(*a*) *Selected Reserve units.* Units manned and equipped to serve and/or train either as operational or augmentation units. Operational units train and serve as units; augmentation units train together but lose unit identity when mobilized. Selected Reserve units include—

- Drilling unit Reservists. Unit members who participate in unit training activities on a part-time basis.
- Full-time Reserve unit support personnel. National Guard and Army Reserve members of the Selected Reserve ordered to active duty (Active Guard Reserve (AGR)) for the purpose of organizing, administering, recruiting, instructing, or training Reserve component units. AGR soldiers must be assigned against an authorized mobilization position in the unit they support.

(*b*) *Individual Mobilization Augmentees.* Trained USAR individuals preassigned to an Active Army, Selective Service System or Federal Emergency Management Agency (FEMA) billet that requires fill on or shortly after mobilization. Individual Mobilization Augmentees *(*IMA) participate in training activities on a part-time basis (12 days annually) with an Active Army unit in preparation for mobilization recall.

(*c*) *Training pipeline (non-deployable).* Enlisted members who have not yet completed initial active duty for training (IADT) and officers attending professional category or undergraduate flying training.

(2) *The Individual Ready Reserve (IRR) (USAR only).* The IRR consists of Ready Reservists not in the Selected Reserve.

(*a*) *Annual training (AT) Control Group*. IRR soldiers with a training obligation. They are not normally assigned to USAR units and take part in AT when directed by the Army Reserve Personnel Center (ARPERCEN).

(*b*) *Reinforcement Control Group.* All IRR soldiers not assigned to another control group. Both obligated and non-obligated officers are eligible for assignment to a USAR unit or an IMA position. Non-obligated officers who decline assignment risk being removed from active status.

(*c*) *Officer Active Duty Obligator Control Group*. Active duty officers, appointed in the USAR, who do not begin active duty at the time of appointment.

(*d*) *Dual Component Control Group*. Regular Army enlisted soldiers or warrant officers who hold Army Reserve commissions.

(3) *The InActive Army National Guard (ING)*. ING personnel are in inactive status in the Ready Reserve and attached to a specific National Guard unit. ING members muster annually with their assigned unit, but do not participate in training activities. On mobilization, ING members mobilize with their units.

b. The Standby Reserve.

(1) The Standby Reserve consists of personnel who maintain their military affiliation without being in the Ready Reserve, are designated key civilian employees, or have a temporary hardship or disability.

(2) The Standby Reserve is a pool of trained individuals available to fill manpower needs in specific skills. These individuals are not assigned to units and have no training requirement.

(3) The Standby Reserve are subject to involuntarily mobilization for the duration plus six months during war or national emergency declared by Congress, or when otherwise authorized by law, provided the Secretary of the Army, with the approval of the Secretary of Defense, determines there are insufficient qualified, readily available Ready Reservist or ING.

(4) Active Standby Reserve soldiers are eligible for inactive duty training (IDT) without pay or travel allowances. However, they are eligible for retirement points, promotion credit, or both.

(5) Inactive Standby Reserve soldiers retain their Reserve affiliation in a nonparticipating status but are ineligible to train for points, pay or promotion.

c. The Retired Reserve. The Retired Reserve consists of soldiers retired based on active and/or Reserve Federal service or medically retired. Those who complete 20 or more years active duty (Regular or Reserve) are eligible for voluntary active duty recall when required by the Secretary of the Army. They are subject to involuntary active duty recall when in the interest of national defense.

Section III: Reserve Component Management Structure

3-6. Congress and the Department of Defense

a. As with the Active Army, Congress, OSD, and DA enact laws and policies that affect the ARNG and USAR. The Senate Armed Services Committee (SASC) and the House National Security Committee (HNSC) prepare the Defense Authorization Act that addresses strength authorizations and other matters concerning the ARNG and USAR. The Defense subcommittees of the House and Senate Appropriations Committees prepare the appropriations acts that authorize funding.

b. The Office of the Assistant Secretary of Defense (Reserve Affairs) (ASD(RA)) has overall responsibility for the RC at OSD level. The principal policy adviser to the Secretary of Defense on RC matters is the Reserve Forces Policy Board (RFPB) which acts through the ASD(RA). The RFPB includes a civilian chairman, an RC general officer as board executive officer, the Assistant Secretaries (Manpower and Reserve Affairs) of each Service, Guard and Reserve general officers, and one active duty general or flag officer from each military department. The RFPB submits an Annual Report to the President and Congress on the Status of the RC as required by statute. That report normally reviews the progress made by DOD and the Services in improving the readiness of the RC. It also identifies areas where the Board concludes further improvements are necessary to make the Reserve Forces more effective.

3-7. U.S. Army Reserve Component controls

a. Within the DA, the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA(M&RA)) has overall responsibility for RC matters.

b. The Army Reserve Forces Policy Committee (ARFPC) reviews and comments to the Secretary of the Army and Chief of Staff, Army (CSA) on major policy matters directly affecting the RC and mobilization preparedness of the Army. The Secretary of

the Army appoints the committee members comprising five Active Army general officers from the Army Staff, five ARNG general officers, and five USAR general officers. The Secretary also appoints five alternate members from the ARNG and USAR. The committee selects a chairman to serve a two-year term from among the RC members. The Director of the Army Staff serves as adviser to the committee.

c. The Reserve Component Coordination Council (RCCC) reviews progress on RC readiness improvements, ascertains issues and coordinates tasking those issues to the Army Staff, and reviews the progress of staff efforts. The Vice Chief of Staff, Army (VCSA) chairs the RCCC and membership includes the Deputy ASA(M&RA), Director of the Army National Guard, FORSCOM Chief of Staff, and selected general officers from the Army Staff, Chief of the National Guard Bureau and the Army Reserve.

3-8. Army National Guard

a. State control. State governors command their respective ARNG until federalized. Governors exercise state command and control through The Adjutant General (TAG), whose authority as a state official is recognized by federal law. TAGs manage federal resources to build combat-ready units. Their management staffs include both state and federal employees. ARNG commanders lead their units in training during peacetime. A State Area Command (STARC) commands and controls ARNG units during premobilization through arrival at the mobilization station and performs movement control functions for all armed services and components during mobilization. STARCs provide family support functions for mobilized Reserve soldiers.

b. Federal control. At the federal level, the National Guard Bureau (NGB) is a joint bureau of the Departments of the Army and Air Force. It provides a peacetime channel of communications among the Departments of the Army, Air Force, and National Guard as established by 10 USC 3040. It is both a staff and an operating agency.

(1) The staff function of the NGB is to formulate and administer a program for the development and maintenance of National Guard units in accordance with Army and Air Force policies. As an operating agency, the NGB deals directly with state governors and TAGs. Figure 3-2 depicts the National Guard management structure.

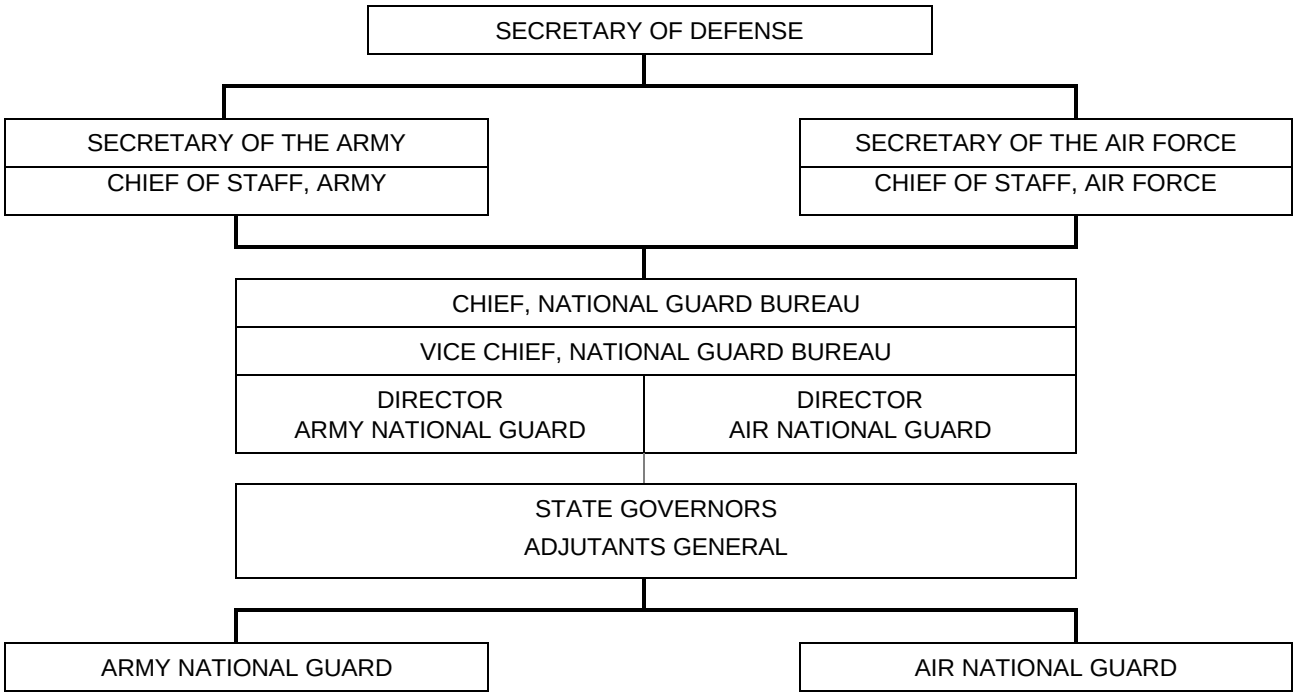


Figure 3-2. National Guard Management Structure

(2) The Chief, NGB (CNGB), is a lieutenant general appointed for a four-year term by the President, with the advice and consent of the Senate, from a list of National Guard officers recommended by the state governors. He may succeed himself. He reports to the Secretaries of the Army and Air Force

through the respective Chiefs of Staff and is their principal adviser on National Guard affairs. The CNGB has no command authority; cooperation is facilitated through control of funds, end strength, equipment, and force structure programs, and by authority to develop and publish regulations pertaining to the ARNG when not federally mobilized.

(3) The CNGB is also the appropriations director of six appropriations by law: three ARNG and three Air National Guard appropriations (pay and allowance, operations and maintenance, and construction). He exercises administrative control through the Vice Chief, NGB (a major general of the opposite service of the CNGB) to the Directors of the ARNG and Air National Guard.

(4) The Director of the Army National Guard (DARNG) administers allocated resources to support ARNG force structure, personnel, facilities, training, and equipment, and to provide combat-ready units. In support of the Federal mission, the DARNG also formulates the ARNG long-range plan, program, and budget for submission to the Army Staff. The DARNG organization is at Figure 3-3.

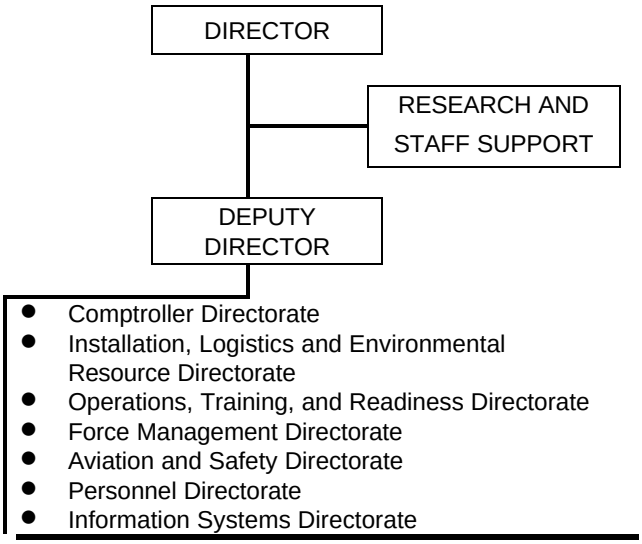


Figure 3-3. Director of the Army National Guard (DARNG) Organization

c. Federal funds and property supervision. The United States Property and Fiscal Officer (USPFO) is an Army or Air National Guard officer ordered to active duty under 10 USC. The USPFO receives and accounts for all Federal funds and property and provides financial and logistical resources for the maintenance of Federal property provided to the state. The USPFO furnishes advice and assistance to units within the state to ensure that use of Federal property is in accordance with applicable Department of the Army directives as implemented by the NGB. The USPFO manages the Federal logistics support system for the states and, upon mobilization of a supported unit, provides support necessary for the transition to active duty status. The USPFO is a federal contracting officer and responsible for federal procurement activities within the state. The USPFO is also the transportation officer responsible for mobilization planning and transportation of ARNG personnel, technicians, supplies, and equipment. Finally, the USPFO is a payroll certifying officer who certifies the accuracy of Federal payrolls.

3-9. U.S. Army Reserve

a. USAR management structure. The Army management structure for the USAR is at Figure 3-4. The Office of the Chief, Army Reserve (OCAR) provides direction for USAR planning to provide trained units and individuals to support Army mobilization plans. Figure 3-5 shows the organization of the OCAR. The Chief, Army Reserve (CAR) is appointed by the President, with the advice and consent of the Senate, and holds the rank of major general in the Army Reserve. The CAR also functions as the FORSCOM Deputy Commanding General for Reserve Affairs and commands the U.S. Army Reserve Command (USARC).

b. The USAR command. USARC commands all USAR troop program units (TPU) in CONUS and Puerto Rico. The Commanding General, FORSCOM, commands the USARC and is responsible for organizing, equipping, stationing, training, and maintaining combat readiness of assigned units. An exception to this arrangement in CONUS is that USAR SOF are commanded by the Commander, USASOC. The Commanding General, U.S. Army Pacific (USARPAC), commands all assigned USAR TPUs and assists in training Hawaii and Guam-based ARNG units. The Commander in Chief, U.S. Army Europe, commands all assigned USAR TPUs.

c. USAR organizational structure and missions.

(1) In CONUS, there are two continental U.S. Armies (CONUSAs) that command Readiness Groups and Senior Army Advisory Groups and coordinate training, operations, mobilization, and deployment (TOM-D) with Army Reserve Regional Support Commands (RSC) within their geographical regions. RSCs are geographically aligned with the Federal Emergency Management Agency (FEMA) regions to facilitate response to domestic emergencies.

(2) USAR TPUs are assigned to RSCs (in CONUS), United States Army Reserve Commands (ARCOMs (OCONUS)), functional or "go to war" commands, divisions (institutional training), or divisions (exercise). Engineer commands, theater Army area support commands, corps support commands, and military police commands are examples of functional commands.

(3) USAR units consist of combat support and combat service support units, institutional training divisions, or exercise divisions. Divisions (institutional training) have a mobilization mission to conduct basic training (BT), advanced individual training (AIT) and one station unit training (OSUT). Divisions (exercise) write and conduct brigade, group, battalion, and lower unit Army Training and Evaluation Programs (ARTEP), command post exercises (CPX), and field training exercises (FTX).

(4) Also included in the USAR structure are Army garrisons with a mobilization mission of staffing a post and U.S. Army Reserve Force (USARF) schools that conduct enlisted military occupational specialty (MOS) courses, special courses, and U.S. Army Command and General Staff College (USACGSC) courses for Active Army, National Guard, and USAR soldiers. Upon mobilization, personnel from these units augment the TRADOC school system, Army training centers, USAG, or other activities.

(5) Civil Affairs (CA) and Psychological Operations (PSYOPS) units perform their mission under the direction of Special Operations Command (SOCOM).

(6) In addition to major USAR organizations, there are approximately 3,300 company or detachment-sized units.

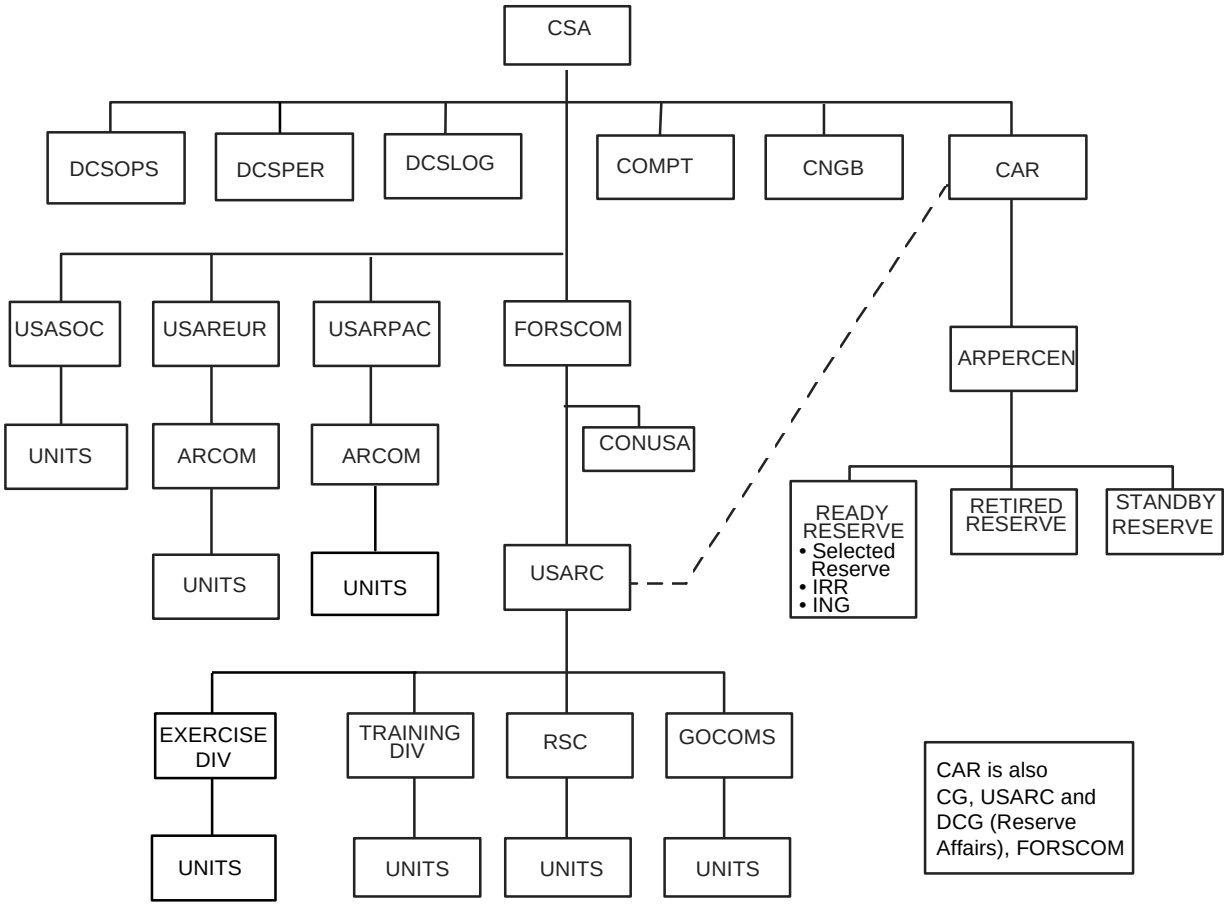


Figure 3-4. Management Structure for the USAR

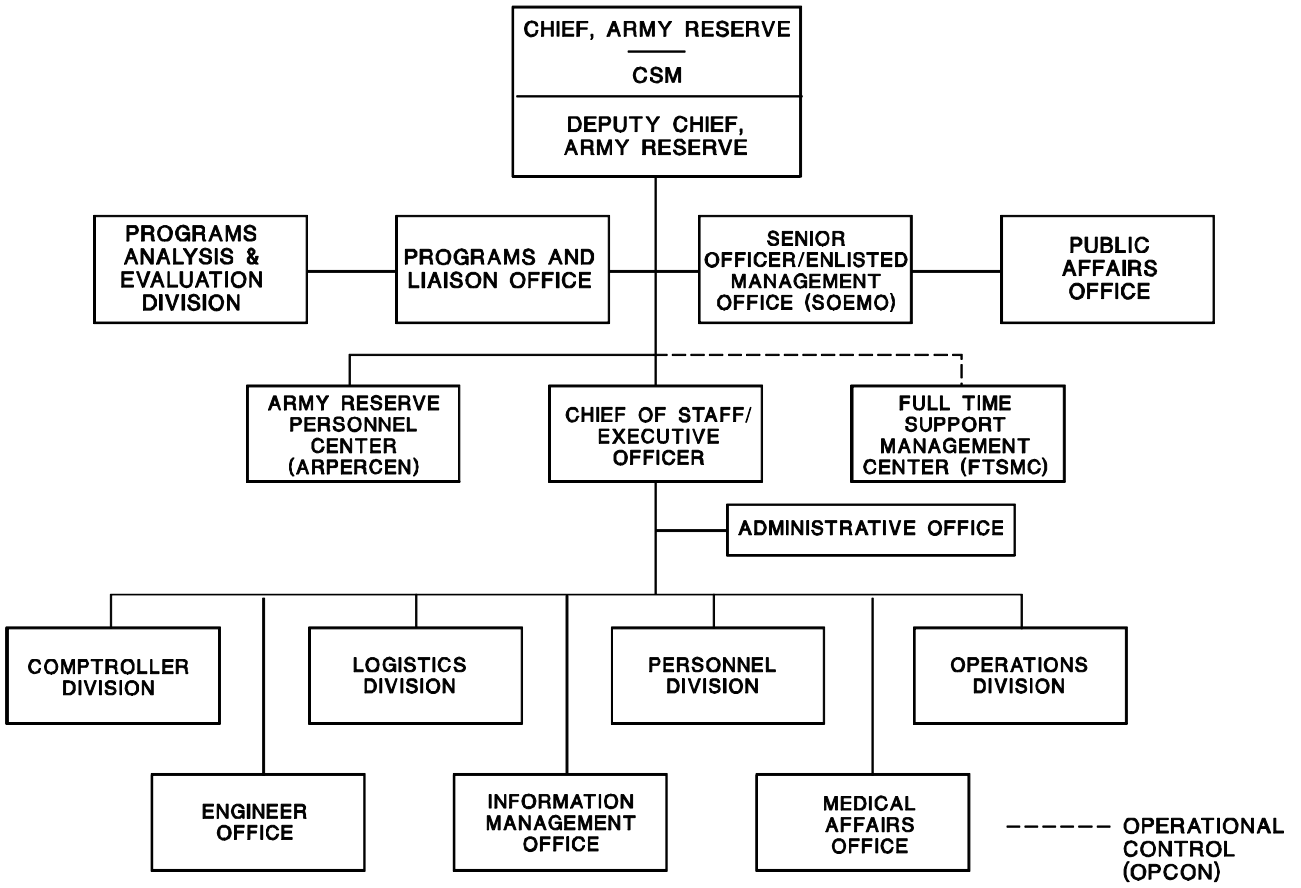


Figure 3-5. Organization of the Chief, Army Reserve

Section IV: Reserve Component Training and Equipment Program

3-10. Reserve Component training program

a. All enlisted personnel without prior service perform an initial period of active duty for training (ADT) under Active Army auspices. This includes BT/AIT or OSUT and is a minimum of 12 weeks. An alternative training method is the "split-training" concept, whereby a RC member may do BT (OSUT Phase I) during one year and AIT (OSUT Phase II) the following year.

b. The Active Army prescribes the training programs of the ARNG and the USAR, both during IDT (commonly referred to as Unit Training Assemblies (UTAs), multiple Unit Training Assemblies (MUTAs), drills, or assembly periods), and during a two week period generally known as annual training. ARNG and USAR units train to the same standards as the Active Army.

c. ARNG and USAR units, as elements of the Selected Reserve, participate in a required minimum of 48 drills (UTAs) and a two-week (14 to 15 days) AT period during the training year. The general trend is to consolidate these Unit Training Assemblies during the year to accomplish four UTAs during a single weekend each month. This MUTA-4 configuration provides continuity for individual and crew training, qualification and familiarization firing, field training, and refresher training.

d. AT consists of mission-essential training conducted at the training site, and includes collective and individual training.

e. The USARF school system conducts professional development and MOS training for officers and enlisted personnel of the Active Army and RC. Upon mobilization, USARF school personnel augment the TRADOC school system, Army training centers (ATC), and other activities.

3-11. Reserve Component equipment program

a. The policy of "first to fight, first resourced" is to ensure that units employed first are adequately equipped. Under this policy, some RC units receive substantial amounts of modern equipment. Army procurement distributes new equipment and priority

sequence determines the redistribution of excess equipment. Later-deploying units, whether Active Army or RC, are provided minimum essential equipment for training.

b. The National Guard and Reserve Equipment Appropriation is a special appropriation designated for the acquisition of equipment by the RCs to improve readiness. Also known as the Dedicated Procurement Program (DPP), Congress may further fence these funds for the purchase of specific items of equipment. DPP funds compliment the Service appropriations that primarily fund force modernization, thereby improving training and readiness in the RC.

Section V: Reserve Component Assistance

3-12. Full time support personnel

Military and civilian positions for full-time support (FTS) personnel provide assistance in organizing, administering, recruiting and retaining, instructing, and training RC organizations. They provide skills, stability, continuity, and a full-time availability not provided by part-time drilling Reservists. Full-time personnel support the development and maintenance of Selected Reserve units and individual readiness. The four categories of FTS are—

a. Active Component. Soldiers assigned directly to USAR units who serve exactly as if assigned to Active Army units.

b. Military technicians. ARNG and USAR technicians provide full-time assistance and support and act as representatives for their commanders during non-drill periods. Technicians ensure continuity in administration, supply, maintenance, and training, and are critical to mobilization preparedness. Both ARNG and USAR technicians are Federal Civil Service employees. The provisions of the Civil Service System apply to Army Reserve technicians (ART). The same provisions apply to ARNG technicians except as modified by Public Law 90-486 (National Guard Technician Act of 1968); 32 USC 709; and regulations prescribed by the NGB.

c. Active Guard Reserve. AGR soldiers serve on active duty in support of the RCs. Personnel governed by 10 USC are available for worldwide assignment. Personnel governed by 32 USC remain under control of the state.

d. Other Federal Civil Service personnel. Civil service employees who are not classified as military technicians.

Section VI: Summary

Over half of the Army's total deployable forces are in the ARNG and Army Reserve. The management of these forces is of paramount importance to the total force. The structure for RC management includes the Congress, DOD, HQDA, states, MACOMs, and units. Two key managing agencies at HQDA are the NGB and OCAR. At MACOM level, states, FORSCOM, USARC, and CONUS armies have a leading role in preparing RC forces for mobilization and deployment.

Chapter 4
The Force Integration Process

Section I: Introduction

4-1. Change as a factor

Change is an inherent element of how the Army accomplishes its statutory functions to structure, man, equip, train, sustain, deploy, station and fund organizations to produce a measurable output. In combat, that organizational output consists of operational objectives achieved. In peacetime, the output is the attainment of readiness objectives.

4-2. The force integration challenge

a. Force integration is the process that introduces, incorporates, and sustains approved organizational, doctrinal, and materiel change. It considers the implications of change on organizations as they progress to a higher level of capability.

b. The imperative for organizations to remain viable in an environment of change is to understand and manage change. This is the challenge of force integration.

Section II: Management of Change

4-3. Organizational change

a. Management of change is a fundamental activity among people, organizations, or nations since relationships do not remain constant over time. The foundations of change that affect Army organizations can be external or internal to the force.

b. History shows that organizations must change with their environment to function successfully and support their continued existence. This evolution will vary with the external pace and magnitude of change, the functions affected, and the organizations involved. Managing change effectively demands an understanding of the environment, related processes, and primary influences.

4-4. Goals

a. The Army manages and executes change through force integration to assure—

(1) Enhanced effectiveness in war-fighting capability.

(2) Balanced capabilities to maintain all core competencies.

(3) Flexible processes to evolve the force in any direction, consistent with guidance and available resources.

b. These goals require that the management and execution of change be structured from a total system perspective. This perspective will—

(1) Incorporate consideration of all input factors.

(2) Develop alternatives.

(3) Provide processes that support decision making.

(4) Assure integration of all solution elements.

(5) Provide output for execution and feedback.

4-5. Force management processes

a. Force management is the capstone process which encompasses all processes associated with the progression from requirements determination through execution of time-phased programs and structures. It involves rank ordering of requirements and the resources applied to these requirements. To accomplish Army missions and functions within resource constraints, force management allocates resources and assesses their utilization.

b. Force management includes several developmental processes as shown in Figure 4-1.

(1) *Combat development.* This is the process of determining requirements for doctrine, training (to include leader development), organizations, and materiel. It also includes the processes by which organizational requirements are translated into organizational models.

(2) *Doctrine development.* This process translates requirements for doctrine into publications that prescribe doctrine, tactics, techniques, and procedures.

(3) *Training development.* This process translates requirements for training and leader development into programs, methods, or devices.

(4) *Materiel development.* This process is the conception, development, and execution of solutions to materiel requirements identified and initiated through the combat development process, translating equipment requirements into executable programs within acceptable performance, schedule, and cost parameters.

(5) *Organization development.* This process translates organization requirements into organizational models.

c. The force development process is an amalgamation of materiel and organizational developments; it translates materiel and organizational requirements into RDA programs and force structure.

d. Force management processes ensure the planning, development, integration, introduction, incorporation, and sustainment necessary to field the optimum force within imposed constraints.

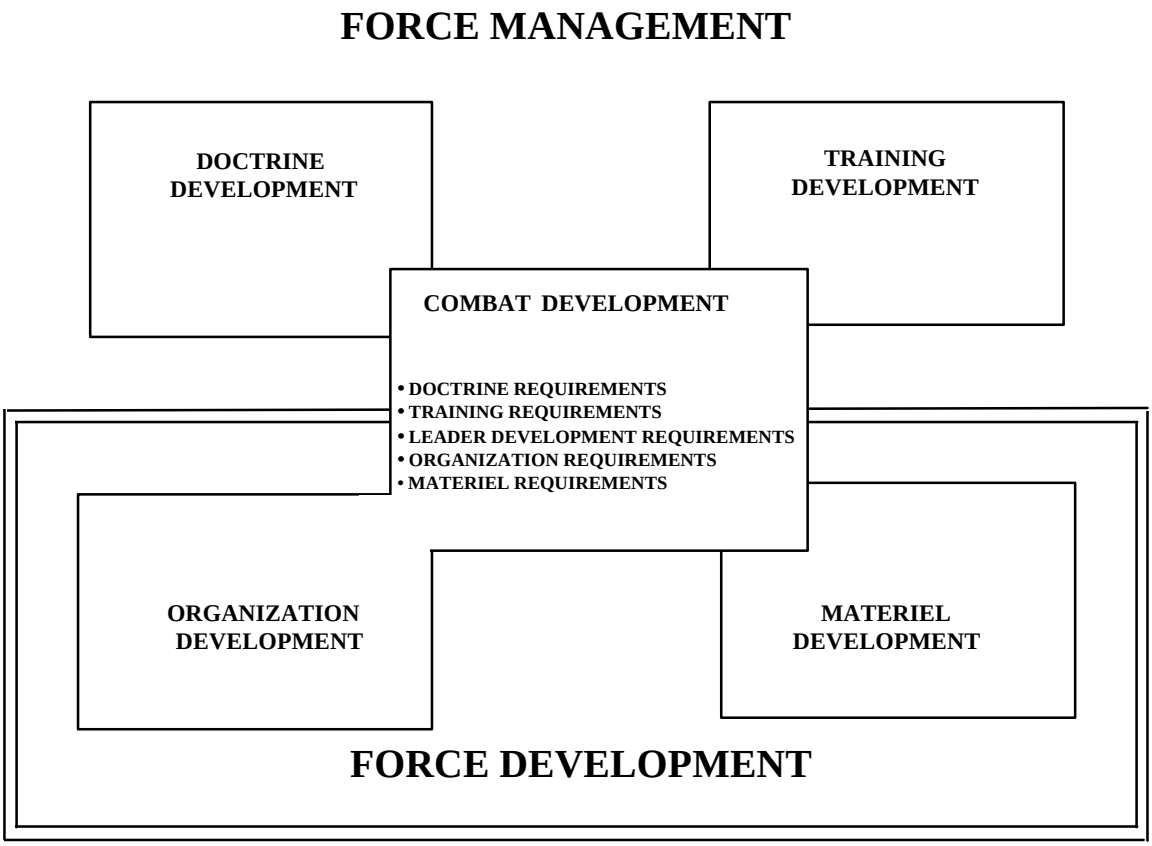


Figure 4-1. Force Management Development Process

4-6. Force management tasks

Fundamental force management tasks include—

a. Doctrine development. This task guides development of operational concepts and doctrine across the operational continuum. Activities associated with this task include—

(1) Developing and preparing concept statements and doctrine in all battlefield dynamics.

(2) Monitoring development of the research, development, and acquisition plan (RDAP) and POM to examine consistency among approved doctrine, organization designs, and system development and acquisition.

(3) Aligning concept and doctrinal developments with assessments of emerging technological capabilities.

b. Requirements determination. This task is designed to balance missions, required capabilities, threats, and identified vulnerabilities. Associated activities include-

(1) Determining detailed force requirements to achieve necessary operational capabilities. Included are requirements for structure, personnel, materiel, facilities, and training.

(2) Reviewing force planning and programming documents to ensure consistency of missions, requirements, and system developments.

(3) Reviewing and validating organizational and materiel requirements documentation.

c. Resource prioritization. These activities align mission requirements with projected resource constraints by establishing priorities for—

(1) Activating, converting, and reorganizing units.

(2) Allocation of personnel and equipment to Army organizations and activities.

(3) Funding Army investment, operations, and maintenance accounts.

d. Authorization allocation. These activities distribute projected resources to meet requirements in Army organizations and activities according to established priorities by—

(1) Executing application of resources to Total Army requirements.

(2) Allocating personnel and equipment authorizations based on established priorities.

(3) Allocating personnel and equipment resources to units in integrated packages of defined capability increments.

(4) Assessing the operational and organizational impact of resource options.

(5) Maintaining planned, programmed, budgeted, current, and historical troop lists.

(6) Planning, programming, budgeting, directing, monitoring, and evaluating organizational capabilities.

(7) Preparing, justifying, maintaining, and defending organizational and materiel systems management decision packages (MDEP).

e. Functional management. Associated activities, such as the Deputy Chiefs of Staff for Personnel and Logistics (DCSPER and DCSLOG), ensure availability and timeliness of the appropriate mix of resources (structure, personnel, equipment, funds and facilities) by—

(1) Managing resources to ensure capabilities, organization, personnel and equipment allowances, and funds are sustained throughout the unit life cycle.

(2) Managing actions which affect major units to ensure internal consistency of organization integration actions and providing linkage between the resourcing and force programming systems.

(3) Managing materiel systems from development through retirement from the force. Systems integration is directed at ensuring materiel viability and sustainability from the user's perspective. This task ranges from defining operational requirements and operational test and evaluation (OT&E) to equipment fielding and sustainment.

(4) Conducting affordability, executability, and supportability assessments for structure, personnel, equipment, fiscal resources, facilities, training, sustainment, deployability and readiness.

(5) Developing total resource packages for systems and organizations over time.

(6) Developing and executing functional policies and procedures in support of the force integration and force management processes.

(7) Monitoring all force integration activities to identify functional management requirements.

f. Program analysis. These activities support Army planning and programming by—

(1) Providing rationale, and justification.

(2) Analyzing RDA programs, initiatives, and alternatives to assist in resource determinations.

(3) Conducting the necessary planning and analyses to ensure RDA programs support modernization and readiness objectives within resource constraints.

(4) Developing and executing policies and procedures for analytical support. This support includes materiel programs, force development analyses, and related affordability, executability and supportability assessments.

g. Operational testing and evaluations. These activities ensure organizations and equipment meet approved operational capabilities when fielded. This is achieved through the management and conduct of all testing and experimentation by—

(1) Developing and executing policies and procedures for user testing and evaluation.

(2) Managing, scheduling, resourcing, coordinating, and executing user testing and evaluation programs.

Section III: Force Integration

4-7. Scope

The scope of force integration includes the functions of structuring, manning, equipping, training, sustaining, deploying, stationing, and funding the force during the introduction and incorporation of approved change. It also includes the function of measuring force readiness during the sustainment of change. Force integration synchronizes these functional activities to produce combat-ready organizations. Force integration is an enabling process of force management.

4-8. Mission

a. The mission of force integration is to improve war-fighting capabilities with minimum adverse effect on readiness during the period of transition. Execution of the force integration mission includes—

(1) Placing new or changed doctrine, organizations, and equipment into the Army.

(2) Developing strategies for coordinating and integrating the functional and managerial systems that exist in the Army.

(3) Assessing the impact of decisions on organizations.

b. The force integration mission can also be seen from a functional, temporal, and organizational perspective (see Figure 4-2).

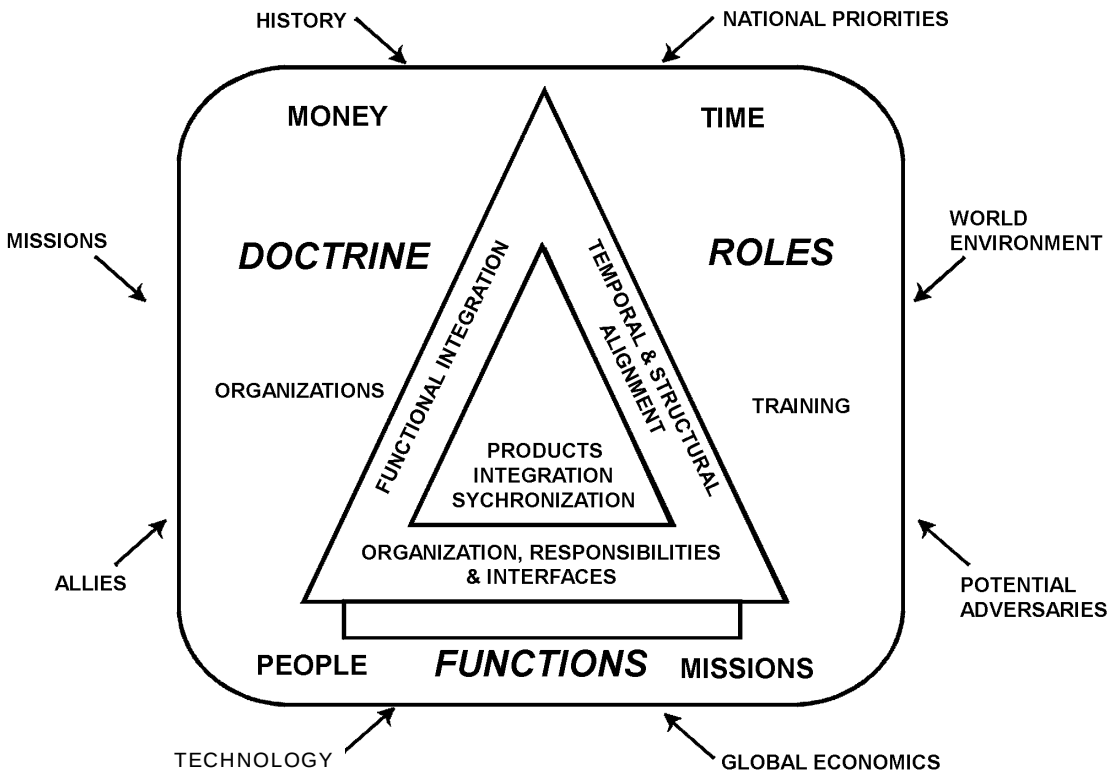


Figure 4-2. Force Integration Environment

(1) *Functional.* Force integration, from a functional perspective, incorporates each function and describes processes for planning and execution supportive of all the affected functions.

(2) *Temporal.* The force integration environment can also be considered from the perspective of time. This views force integration in the context of the PPBES with activities occurring in the near-term (current year and budget years), the mid-term (the program years), and the far-term (the extended planning period). Each of the functional inputs and products has timelines that must be aligned to ensure success.

(3) *Organizational.* From the organizational perspective, synchronization of force integration functions and processes is accomplished at all command and agency echelons. Planning and programming of activities are designed to ensure that execution at the user organization can be accomplished in minimum time with minimum readiness degradation and will result in a maximum possible increase in capability.

c. These three force integration perspectives provide a holistic view of the environment. The activities, processes, products, decision support mechanisms, and databases associated with force integration occur within this environment. The complexity of functional execution and synchronization is apparent. Integration and synchronization of these functions requires—

(1) Mutually supportive planning and execution mechanisms.

(2) Centralized planning and decentralized execution.

(3) Comprehensive and flexible decision support processes.

4-9. Force integration components

Force integration encompasses processes, decision support mechanisms, and products to manage change by—

a. Assessing requirements for changes in capability.

b. Ensuring consideration of growth alternatives.

c. Developing suitable, feasible, and acceptable concepts to execute programs.

d. Determining and recommending solutions.

e. Obtaining approval for solutions.

f. Preparing and executing detailed plans of action.

g. Assuring feedback that validates or modifies actions and execution, as necessary.

4-10. The role of operational requirements in force integration

Within the Army, operational requirements establish the parameters for change management. They include the following—

a. Direction and guidance. NCA, JCS, and departmental guidance provide the basis for developing Army plans and conducting operations.

b. Missions. Missions are based principally on laws, customs, and directions from higher authority. The Army's statutory, specified, and implied missions establish the framework within which the Army manages change.

c. Doctrine. Army doctrine establishes the broad principles for the conduct of military and other support operations. As missions, allies, history, and technology evolve, the Army reexamines and revalidates or changes its war-fighting doctrine.

d. Organizations. The Army designs its force structure to conduct combat operations in consonance with approved doctrine. At any point in time, current organizations in the force structure are the baseline from which the Army's evolution must occur.

e. Training. The force is structured, equipped, and trained for a given set of missions. Training is a key element in the incorporation and sustainment of organizational change.

f. Current and programmed force programs. Force structure changes approved in the defense budget and POM establish the parameters for future activities.

g. DOD, HQDA, and MACOM priorities. Priorities established by these elements can limit the flexibility available to the Army at large to manage change within specific timelines.

h. Resources. A key determinant for managing change is resource allocation, directly effecting changes in program execution.

Section IV: Foundations of Force Integration

4-11. The Army Organizational Life Cycle Model

a. Force integration is a multidisciplinary, capstone process that examines, validates, modifies, and monitors all aspects of change. It results from activities within functions or functional groupings designed to increase operational capability at the organization level. The AOLCM provides a construct for explanation and examination of the overall process. No function of the model can be viewed as a discrete entity because no single function can be accomplished without reference to, or effect on other functions. The AOLCM is depicted in Figure 4-3, with the eight functions supported and influenced by command, leadership and management, and resources.

b. To articulate the nature of change and to assess the executability and supportability of change, all factors affecting organizations must be considered. The definitions of the nine force integration functional areas (FIFA) provide the standard to be achieved in transitioning organizations from one level of capability to a higher level. They prescribe the correctly structured, equipped, trained, manned, sustained, deployed, stationed, and funded end state to be achieved at the culmination of modernization as well as the required readiness level.

(1) *Structuring.* An organization is properly structured when the organization, its direct support/general support (DS/GS) structure, and the support infra-structure have accurate requirements documents, HQDA-approved authorization documents on hand, and registered unit identification codes (UIC).

(2) *Manning.* An organization is properly manned when the organization, its DS/GS structure, and the support infra-structure have assigned, by grade and skill, all authorized personnel.

(3) *Equipping.* An organization is properly equipped when the organization and its DS/GS structure have the most modern equipment authorized, to include major end items; associated support items of equipment (ASIOE); test, measurement, and diagnostic equipment (TMDE); special tools and test equipment (STTE); maintenance floats; and all authorized common table of allowances (CTA) items.

(4) *Training.* An organization is properly trained when the organization and its DS/GS structure have completed all required Army modernization training (AMT) to include NET, DTT and NOT, and have been evaluated and meet ARTEP standards. All authorized organizational training support material and training devices must be in unit hands and all institutional training courses and training systems, training ammunition, and training facilities must be available. All doctrinal publications must be on hand.

(5) *Sustaining.* An organization can be properly sustained when all authorized organization-level combat support and combat service support personnel are assigned and all support equipment, facilities, spares, and supplies are on hand. The DS/GS structure and any support infrastructure must be structured, equipped, trained, manned, sustained, stationed, and funded to sustain the supported organization. All support publications must be on hand and the organizations must have valid Department of Defense activity address codes (DODAAC).

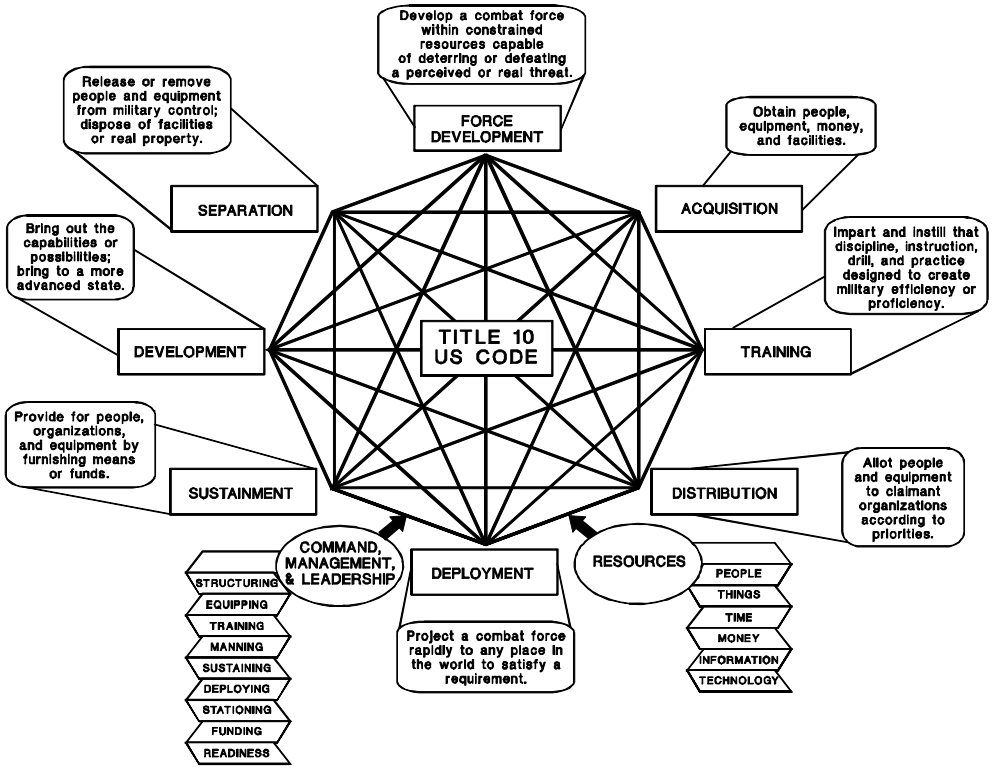


Figure 4-3. Army Organizational Life Cycle Model

(6) *Funding.* An organization is properly funded when all costs associated with the organization and its DS/GS structure have been identified, programmed, and resourced. Funds must be available to support activation, reorganization, conversion, stationing, property turn-in or transfer, transportation, facility construction or renovation, and operating tempo (OPTEMPO).

(7) *Deploying.* An organization is deployable (and/or employable) when the organization, its DS/GS structure, and associated round-up/round-out units are structured, equipped, trained, manned, sustained, stationed, and funded to operate as an element of an Army component command. The organization must be compatible with associated reserve component and sister Service organizations.

(8) *Stationing.* An organization is properly stationed when the organization has an appropriate mission and its DS/GS structure have all required organizational facilities and support infrastructure in place. No degradation of quality of life, safety, or environmental standards can exist.

(9) *Readiness.* An organization is operationally ready when the organization and its DS/GS structure are at overall and commodity area category levels consistent with the organization's authorized level of organization (ALO).

c. Horizontal synchronization of these vertical functions is focused on user organizations to achieve an enhanced operational capability after transition.

Section V: Force Integration Planning

4-12. Planning requirements

a. Requirements for force integration originate with the NMS with further details found in the DPG. Mid- and long-range planning is further refined by the joint strategic and Army long-range planning systems. Systemic relationships are depicted in Figure 4-4.

b. Planning to execute change involves the efforts of force integrators at all force levels down to the lowest manageable level: regiment, separate brigade, or division. All actions and activities that can be accomplished at these levels must be planned and accomplished to reduce the complexity of executing change for the ultimate executor: the organization commander. Proponency for planning rests with the staff force integrator, who must monitor execution to ensure changes are introduced, incorporated, and sustained.

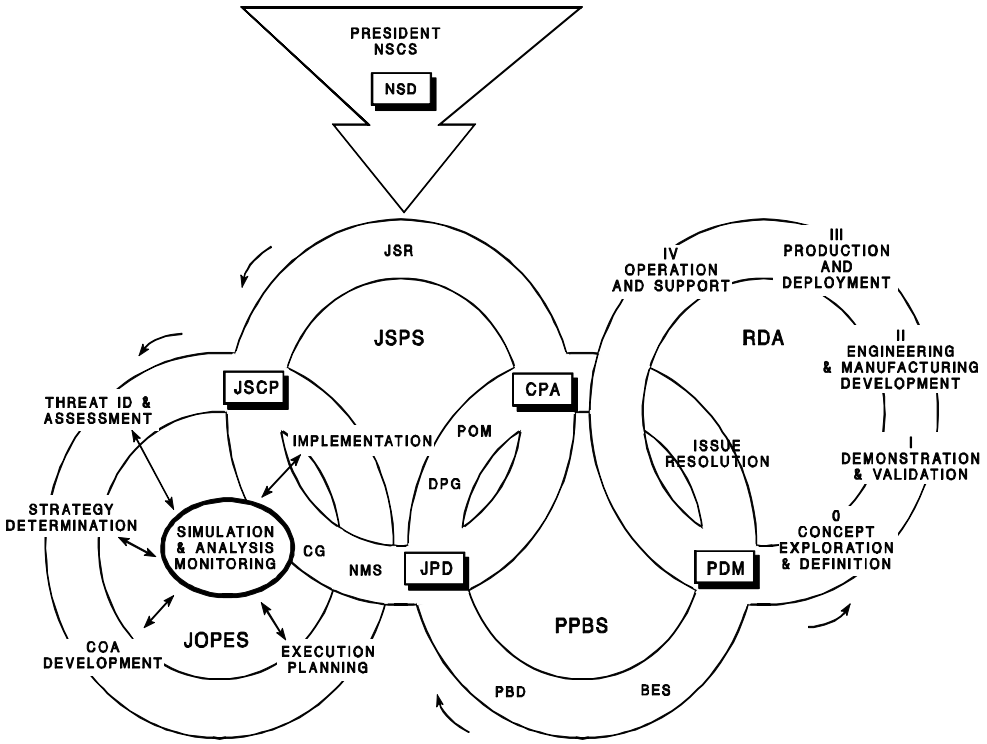


Figure 4-4. Defense Planning System Interrelationships

c. Planning and execution of force integration actions will occur in all environments—in peacetime, mobilization, wartime, and during demobilization. Activations, conversions, and reorganizations are programmed and documented to ensure that long-range objectives are attained. This is significant because unilateral decisions to activate, convert, or reorganize units provisionally require diversion of programmed resources and may only achieve short-term success. The flexibility of a commander to task organize forces does not give him the license to effect unprogrammed and undocumented organizational change.

4-13. Impact assessments

Assessments of force integration actions must quantify their impact on organization and force readiness. Changes that are documented in the authorization database without adequate supporting resources may, if implemented, result in a degradation of unit status in terms of personnel, equipment on hand, equipment serviceability, or training. If such action could result in a lower unit status category rating, any associated changes must be subjected to intensive planning and management.

4-14. Planning factors

a. Full consideration of selected planning factors is critical for accomplishing the force integration mission successfully. Force integration planning must—

(1) Identify the nature of change, when it will occur, and what organizations it will affect.

(2) Ensure that documentation supports the change.

(3) Develop suitable, feasible, and acceptable concepts to execute the change.

(4) Assess the executability and supportabiity of the change.

(5) Involve affected organizations in the planning process.

(6) Identify facilities requirements.

(7) Establish command and staff responsibilities and milestones.

(8) Control turbulence in organizations.

(9) Avoid “instant unreadiness.”

(10) Maintain a war-fighting focus.

b. Application of decision support methodologies in the planning process ensures that required tasks are structured in the sequence in which they are to be accomplished. A synchronized plan requires that critical and concurrent activities be identified and correlated in time and by organization.

Section VI: International Considerations

4-15. National priorities

As U.S. interests evolve, their relative importance for achieving National interests will vary. For example, the relative importance of geography, trade, natural resources, or National debt may change. These elements may increase or decrease in significance as their impact on National goals and objectives changes. Such change may, in turn, have corresponding influences on the Army.

4-16. History and world environment

A nation's historical perceptions influence its relationships with the family of nations. A nation's selection of allies also evolves over time as national interests change and significantly influence international relations. Historical alliances have had significant influence on the future goals of the nation and its military and affect the planning and execution of military operations.

4-17. Potential adversaries

Much like alliances, potential adversaries shift over time as national interests evolve. This results in a periodic reassessment of which nation constitutes a significant threat to national and alliance interests.

4-18. Technology

The accelerated pace of technological developments is a significant element of change. This revolutionary trend directly affects requirements for the timely exploration of technological opportunities and the need to manage change within the military.

4-19. Missions

The above factors directly impact on missions assigned to the military. Modifications in prospective responsibilities, potential alliances, and threats have a profound effect. Furthermore, the evolution of national interests and priorities significantly influence the conduct of warfare and OOTW.

4-20. Direction and guidance

The sum total of internal and external elements provides the foundation for direction and guidance from the NCA to the JCS and the military departments.

Section VII: Summary

Management of change through the force integration process is vital to the Army. Change is affected by complex external and internal factors. The process of introducing, incorporating, and sustaining change is the force integration process. Functional process synchronization integrates the activities associated with force integration. This introduction to the complexity of the force integration mission will be expanded in the remainder of this manual.

Chapter 5
Organization Management

Section I:
Introduction

5-1. Organizational integration

The Army manages organizations through organizational integration. Organizational integration focuses on user organizations in the process of introducing, incorporating, and sustaining new structure, equipment, and doctrine into the Army. Organizational integration manages the documentation, resourcing, fielding and sustainment of assigned organizations as integrated packages, assuring doctrinally aligned capabilities within resource constraints. Organization integration focuses on increasing force capability while managing the organizational changes through prioritization of resources, management of information, synchronization of activities and assessment of capabilities.

5-2. Management structure, objectives and execution

The management of functionally similar organizations and major units composed of functionally dissimilar subordinate elements requires structure, objectives, and execution at HQDA, Army component command, MACOM, corps, division, and installation levels. This chapter discusses functional responsibilities at each of these levels. It also addresses organizational structure, integration, and assessments as management tools for cyclic reviews and decision support for changes in Army organizational structure, materiel, and doctrine.

Section II:
Organization Management Structure

5-3. Levels of control

a. The National level. The executive and legislative branches of government, to include the DOD, affect force management processes. These agencies define and resource force structure and approve materiel acquisition programs. Such involvement frequently determines if individual Service planning and programming can be executed or must be changed. Therefore, the Army must plan and program the force in detail and retain sufficient flexibility for modifications and adjustments.

b. Department of the Army level. HQDA is responsible for prioritizing assets, determining requirements and establishing authorizations for people and materiel. The Army Staff (ARSTAF) plans, programs, and develops the force. It develops projections for required force capabilities to accomplish Army missions and functions. The Vice Chief of Staff is responsible for force management. The DCSOPS, HQDA is responsible for Army-wide execution of force management .

c. Army MACOMs and component commands. Force management staffs of MACOMs and Army component commands plan, program, and develop their portion of the total force from the perspective of their command's specific operational requirements. They also develop the force structure options , guidance, and information necessary to ensure effective execution of the force integration process within subordinate organizations.

d. Below MACOM level. Force management staffs at corps, division, and installation perform the force integration mission at their level. Actual execution of organizational activations, conversions, and reorganizations is accomplished by the parent organization of affected units.

5-4. Implementation considerations

Implementation may occur as a result of planned, programmed, and documented organizational change or in support of unit deployments into combat or OOTW. In either case, organizations activated, converted, or reorganized must be structured, manned, equipped, trained, sustained, deployed, stationed, and funded to function as part of the Army component of a joint task force or unified command. Reserve Component organizations that round-up, round-out, or enhance Active Component forces must also be capable of being sustained by the Active Component's parent organization.

Section III:
Organizational Integration

5-5. Objective and scope

Organizational integration is a tool of change management that focuses Army management actions on organizations to ensure orderly introduction, incorporation, and sustainment of new structure, equipment, and doctrine into the total Army.

a. The objective of organizational integration is to manage the combined impact of Army functional systems on organizations to ensure the right mix of resources (structure, people, equipment, dollars, facilities) is available to support a planned activity for an organization. Increasing capabilities within resource constraints.

b. Execution of organizational integration in the near-, mid-, and far-terms involves—

(1) *Recommending priorities.* Organizations must be considered in their totality when determining priorities for managing change while accounting for

total force war-fighting requirements during the planning and execution phases.

(2) *Managing information.* Information that is routinely conveyed vertically through functional or branch "stovepipes" must be shared horizontally across the force management spectrum. Force management staffs must ensure that echelon-specific information is integrated and analyzed. All available information must be focused on an organizational perspective.

(3) *Synchronizing activities.* Sequencing events in time is involved in virtually all force management activities. Change requires multifunctional support from all organizational echelons down to the specific, affected and supporting unit(s). Responsibilities, milestones, and decision points must be established to achieve operational requirements. The definitive critical path of an action allows commanders to synchronize the total integration function.

(4) *Monitoring execution.* Routine functional staff supervision of force management activities enables adjustments and deconfliction of actions, and provides necessary updates of schedules.

(5) *Assessing capability*. Affordability, supportability, and executability must be assessed prior to and incident to activations, conversions, reorganizations, strength changes, or authorized level of organization (ALO) changes ensuring total organizational integration.

5-6. Organization integration team

a. Organizational integration (OI) is the doctrine of change management that focuses actions on organizations to ensure the orderly introduction, incorporation and sustainment of new structure and new materiel systems to increase force capability. Force management, planning, and execution may be accomplished by several management solutions.

b. The OI team (Figure 5-1) is a task-organized group of organization managers, functional area proponents and special interest proponents responsible for management of organizational change that provides the proper staff synergism for the management of change.

c. Execution of the force management process depends on the synchronized efforts of organizational and functional management and special interests. Special interests are represented by external agencies whose activities affect or are affected by the specific actions.

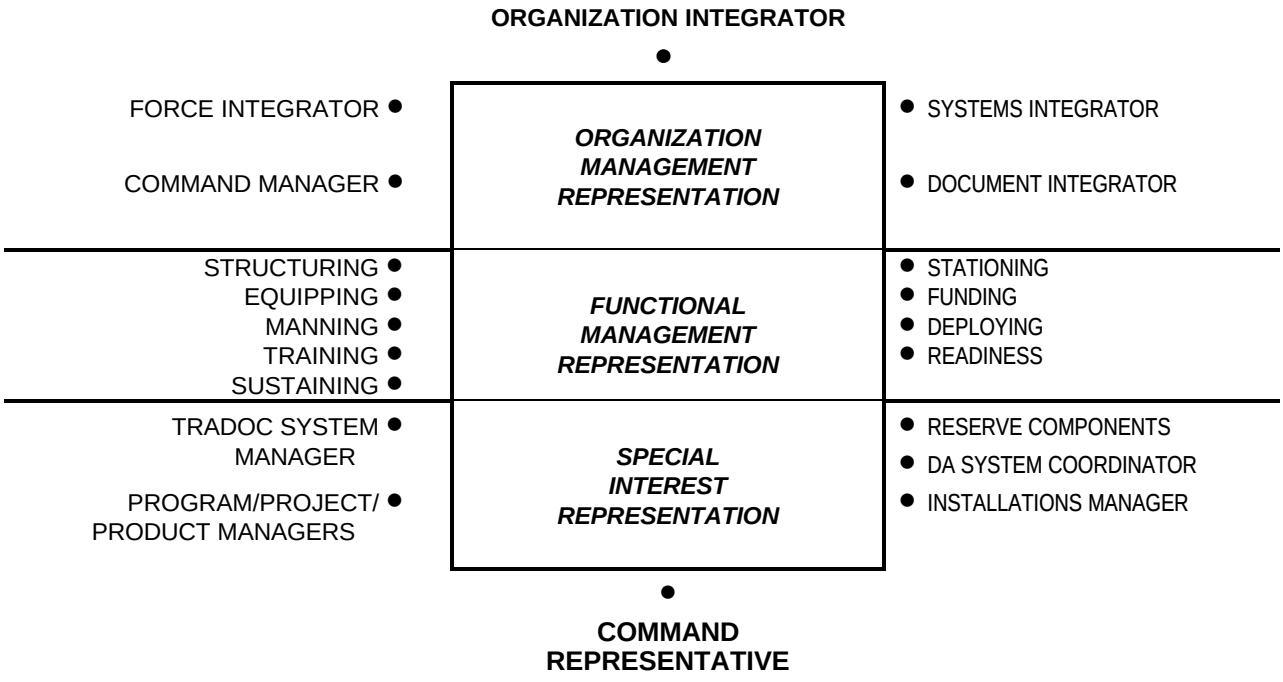


Figure 5-1. Organization Integration Team

d. Functional management is represented by command or staff proponents of each force integration functional area. Functional area proponents manage organizations and/or materiel systems based on function or branch. The challenge is to incorporate organization or system changes, normally accomplished within the vacuum of a stovepipe structure and therefore divorced from the force management staff, into the total force management effort. Functional representatives include, but are not limited to, the following:

(1) Personnel Systems Staff Officer (PERSSO) for the manning function.

(2) DA Logistics Systems Officer (DALSO) for the equipping function.

(3) Assistant Chief of Staff for Installation Management (ACSIM) representative for the stationing function.

e. Staff points of contact (POC) contribute functional expertise to force management without assuming staff proponency.

f. Coordination of force integration actions is accomplished by the OI team. The team's structure depends on the task and organization(s) affected, to include representation from organizational and functional management personnel. Special interests, to include affected organizations, should be represented. The OI team uses information available in existing Army information systems to assess affordability, supportability and executability of planned and programmed activities. If problems appear in information systems or the validity of plans, the OI team identifies the issue and assesses the impact by functional area. Action is taken to correct the problems at the lowest manageable level. The functions of each member of the OI team are as follows:

(1) *Force Integrator*. The Force Integrator (FI) represents organization interests of functionally *dissimilar* organizations grouped into brigades, regiments, divisions, and corps. The FI—

(*a*) Assesses the ability of functional systems to provide personnel, equipment, facilities, and fiscal resources for major units.

(*b*) Develops, maintains, and defends organizational MDEPs for major organizations.

(*c*) Develops, assesses, and makes recommendations for alternative use of resources for establishing and maintaining major organizations to support a war-fighting CINC and other MACOMs.

(*d*) Acts as the link between resource allocators and OIs.

(*e*) Evaluates and analyzes the total impact of incorporating personnel, facilities, equipment, doctrine, structure, and capability changes into major organizations.

(*f*) Ensures validity of operating system databases.

(*g*) Reviews requirements and authorization documents.

(*h*) Assesses the impact of new doctrine, structure, manning, equipment, and facilities on major units. This includes strategic policy, training, mobilization, deployment, sustainment, redeployment, demobilization, and resource strategies.

(2) *Organization Integrator*. The Organization Integrator (OI) represents organization interests of functionally *similar* organizations and integrates management of all aspects of structuring, equipping, manning, training, sustaining, deploying, stationing, and funding. The OI represents all organizations in a specific standard requirements code (SRC) or specific type organizations within a branch. The OI also organizes and synchronizes OI team activities. The OI—

(*a*) Assesses the ability of the functional systems to provide personnel, materiel, and facilities for organizations.

(*b*) Recommends priorities for allocation of personnel, materiel, and facilities to organizations as integrated packages.

(*c*) Assesses the impact on readiness as a result of personnel, training, equipment, facilities, doctrine, or structure changes.

(*d*) Reviews distribution plans and determines impacts on organizations. Assesses impact of new capabilities on organization structure, doctrine, or resources.

(*e*) Reviews, coordinates ARSTAF review, and recommends final ARSTAF position to the Director, Force Programs, ODCSOPS, on all organization requirements documents (tables of organization and equipment (TOE), basis-of-issue plans (BOIP), and manpower requirements criteria (MARC) studies).

(*f*) Coordinates authorization documents. Maintains the documentation audit trail on all additions, deletions, and other changes to organization authorization documents.

(*g*) Develops, maintains, and defends organizational MDEPs for organizations.

(*h*) Ensures validity of operating system databases, such as the Structure and Manpower Allocation System (SAMAS).

(3) *Command Manager (Force Structure)*. The Command Manager (Force Structure) (CM (FS)) represents the organizational interests of a MACOM, manages its tables of distribution and allowance (TDA), and serves as the modification

TOE (MTOE) OI and FI for that MACOM. The CM (FS)—

(*a*) Acts as POC for command plans and concept plans.

(*b*) Maintains the documentation audit trail on all additions, deletions, and other changes to unit MTOEs and TDAs.

(*c*) Produces manpower resource guidance for MACOM Program Budget Guidance (PBG).

(*d*) Manages command force structure allowances.

g. Figure 5-2 illustrates the different responsibilities of the OI, FI, and CM (FS).

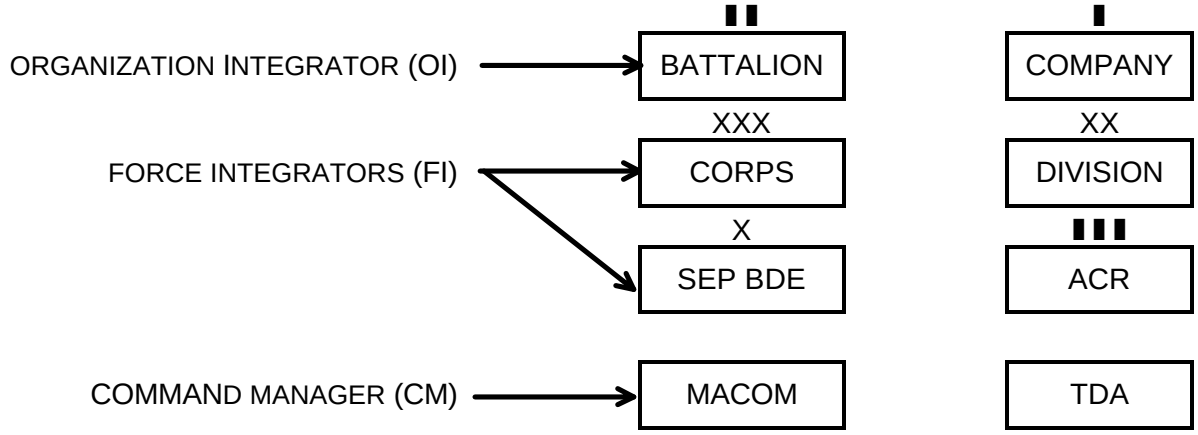


Figure 5-2. Force Integration Responsibilities

(4) *Systems Integrator*. The Systems Integrator (SI) represents user interests in all materiel system management aspects of force integration. The SI is involved in all aspects of equipping, from the front-end requirement determination process through system fielding. The SI—

(*a*) Determines requirements for materiel fielding and other user-oriented functions related to materiel acquisition.

(*b*) Develops the command position on materiel requirements documents.

(*c*) Assesses the affordability of the materiel requirements.

(*d*) Develops materiel acquisition or fielding alternatives.

(*e*) Recommends materiel acquisition priorities for research, development, test, evaluation, procurement, and materiel change programs.

(*f*) Recommends priorities for materiel distribution.

(*g*) Participates in system design reviews.

(*h*) Ensures all aspects of rationalization, standardization, and interoperability (RSI) are considered.

(*i*) Reviews requirements and authorization documents for materiel user implications.

(*j*) Recommends disposition of displaced equipment.

(5) *Document Integrator*. Document Integrators (DI) ensure that requirements and authorization documents meet approved Army force programs. Documentation integration is a function of the U.S. Army Force Management Support Agency (USAFMSA), a DA DCSOPS field operating activity (FOA). DIs include requirements document developers and authorization document developers. The DIs link requirements, planned or programmed force structure actions, and the documentation processes. The DIs—

(*a*) Develop requirements documents (TOE, BOIP, and MARC).

(*b*) Produce authorization documents (MTOE) based on HQDA guidance, organization requirements documents, command plans, and input from the MACOMs.

(*c*) Review proposed authorization documents to ensure compliance with manpower, personnel, and equipment policies and directives.

(6) *Command Manager (Program Budget Guidance)*. The Command Manager (Program Budget Guidance) (CM (PBG)) ensures that the manpower allocation for each MACOM is accurately reflected in the SAMAS system, in conformance with Army leadership decisions, and within

the manpower controls as specified by OSD. The CM (PBG) represents the Army's budget interests of functionally dissimilar organizations grouped into the various MACOMs. The CM (PBG)—

(*a*) Manages the manpower database of record by MACOM, at UIC, MDEP, and Army management structure code (AMSCO) level of detail, by fiscal year, by category (military and civilian) for each budget cycle.

(*b*) Maintains the Army's only detailed audit trail for manpower.

(*c*) Interfaces with all ARSTAF agencies and MACOMs during each budget cycle.

(*d*) Produces the manpower addendum to the PBG at the conclusion of each PPBES event.

(*e*) Manages and maintains the Army's controlled accounts.

(7) *Army component commands and MACOMs.* Force management staffs at these echelons manage the planning and execution of the force integration mission through—

(*a*) Document integration, including authorization document (MTOE) review, TDA development, and database management.

(*b*) Systems integration, including, requirements and authorization document review, the materiel fielding plan (MFP) process, new equipment training plan (NETP) review, and facilities support annex review.

(*c*) Organization integration, including the organizational assessment process, review of requirements and authorization documents, and doctrine review.

(*d*) Force structure management, including TDA document management, the Master Force (MFORCE), and end strength management.

(*e*) Force planning, including the total Army analysis (TAA) process, command plan (CPLAN) process, force reduction planning and monitoring, and concept plan (CONPLAN) development.

(*f*) Readiness management, including Status of Resource and Training System (SORTS) input and the unit status reporting (USR) process.

(8) *Corps, division, regiment, separate brigade, and installation.* Force management staffs at these levels manage force integration through—

(*a*) Force structure management, including authorization document (MTOE) and MFORCE management, USR monitoring, and force structure review and analysis.

(*b*) Systems integration, including action plan development, distribution plan reviews, and facilities review.

(*c*) Organization integration, including organizational assessments, force structure review and analysis, and authorization document review process.

Section IV: Assessments

5-7. Force Validation Committee

a. Organizational assessments are management forums for identifying and resolving issues that inhibit execution of short-term organizational change (activations, conversions, strength changes, ALO changes, and reorganizations) occurring in the budget year and the first year of the POM.

b. The Force Validation Committee (FVC) is a HQDA forum that meets on a schedule directed by the DCSOPS to review force management actions. The FVC reviews the upcoming 24 months, for all components, for all SRCs and UICs undergoing organizational change. The FVC reviews all aspects of manning, equipping, funding, training, and stationing to ensure that the organizations attain a readiness category of level C-3 or better upon activation or conversion. (See Chapter 13 for a discussion of readiness categories.)

c. Organizational assessments support the force management mission of increasing war-fighting capability by providing credible information in support of decision making. This should occur with minimum adverse effect on readiness as organizations transition to new structure, materiel, and doctrine, or a combination of any of these. The assessment process uses the force integration functional areas to focus on total organizations; that is, the organization undergoing change and all other DS, GS, round-up/round-out, and sister service organizations affected. The organizational assessment methodology may be employed to support "call forward" decisions or validation of programmed force structure actions.

d. Comments from subordinate commands, as well as studies and analyses (such as, system program reviews) peculiar to a specific functional area, may be used to develop issues to focus the assessment process. Issues are identified, coordinated, and, if possible, resolved throughout the assessment process. Unresolved issues are briefed during the conduct of formal assessment presentations.

5-8. Functional area assessments

a. Functional area assessments (FAA) are intensive management forums that allow the Army leadership to identify and resolve issues that prevent or inhibit the execution of near- and mid-term plans and programs. FAAs examine the impacts of modernizing the Army, by functional area.

b. FAAs investigate the horizontal and vertical exchange of information focusing on the Army's ability to maintain readiness, force capability and force modernization in the POM years. The focus is on the Army's ability to execute its modernization plans and fully support all aspects of programmed unit transitions improving the war-fighting capability of the total force with minimum adverse effect on readiness.

c. FAAs assist the Army leadership in shaping the most cost-effective force, while emphasizing readiness, modernization and capability. The VCSA may use the FAA process to consider special management areas, such as command and control or force management.

d. The DCSOPS is the executive agent for the FAA process. The proponent and coordinator of the FAA process is the appropriate TRADOC service school commandant, MACOM commander, or ARSTAF proponent. FAA's executability analyses address the functional domains of doctrine, training, leader development, organizations, materiel and soldiers (DTLOMS).

5-9. Affordability assessments

Affordability assessments review organizational change through prioritization of resources, synchronization of activities, and availability of personnel, equipment, training resources, infrastructure, mobilization, deployment and sustainment (PBG support). Affordability assessments identify and resolve systemic discontinuities of PBG support prior to impacting force readiness and force capability. They are assessments of the ability of the Army to provide PBG support to force structure actions.

5-10. Supportability assessments

Supportability assessments are UIC-specific assessments conducted for change documented in the current or budget year. Supportability assessments determine the ability of the functional systems (personnel, materiel and sustainment) to support documented change by projecting the unit status category on completion of the organization transition period. Failure to meet the readiness objective (C-3) may require action to modify the effective date (E-date) of change or prioritization of personnel or equipment. They are assessments of whether there are sufficient personnel and equipment resources in the Army to fill to C-3 or better at MOS, grade, and equipment quantity (by line item number (LIN)) level of detail.

5-11. Executability assessments

Executability assessments are SRC-specific assessments conducted to determine if there are sufficient personnel and equipment resources available to fill units to C3 or better at the unit location by the effective date (E-date).

Section V: Summary

The organization management framework for the force integration process focuses on organizations to ensure that change affecting organization at all Army levels is coordinated, synchronized, and continually assessed. This coordination, synchronization, and assessment is conducted from HQDA through Army component commands and MACOMs to corps, division, and installation levels.

Chapter 6
Structuring the Force

Section I: Introduction

6-1. Basis for force requirements

Force development is initiated by determining battlefield requirements. Minimum mission-essential wartime requirements for the conduct and sustainment of combat operations are the basis for Army organizational designs and force structure requirements.

6-2. Resourcing requirements

The development of force structure to accomplish Army missions and functions includes the active and Reserve Components and aims at a balanced mix of organizations. Authorizations for required personnel and equipment are constrained by available resources (manpower, equipment and dollars) provided through the Army's PPBES. Documentation of these authorizations culminates the process of structuring the force.

6-3. Balancing resources and requirements

Force managers who structure the force through the POM consider the best application of resources to achieve desired results. They allocate available resources to the Active and Reserve Components, the Federal Civil Service work force and consider force structure offsets from sister services or other national assets.

Section II: Source Documentation

6-4. Joint Strategic Planning System

The Joint Strategic Planning System (JSPS) includes an identification and evaluation of the threat. It provides the basis for formulating strategy and resource needs for forces and materiel. Three outputs of JSPS are the National Military Strategy (NMS), CPR and the JSCP. The NMS announces the fiscally constrained force as determined by the JCS. The CPR establishes the priority for joint war-fighting capability. Force sizing (Figure 6-1) translates the NMS into the JSCP and optimizes the use of resources to meet the war-fighting CINCs' operational requirements.

6-5. Joint Strategic Capabilities Plan

The JSCP translates strategy into taskings and requires that plans be completed to accomplish missions within available resources. The JSCP is the JSPS document that starts the deliberate planning process and is the only formal tie between JSPS and the JOPES. As operational plans are developed, resource requirements are prioritized through allocation of resources in the PPBS.

6-6. DOD Planning, Programming, and Budgeting System

a. The DOD PPBS begins with the NMS, which starts the planning phase and serves as the basis for the DPG. PPBS, the DOD resource allocation system, focuses on the acquisition of resources necessary to organize the forces required to execute the strategy in the DPG.

b. The POM force is developed based on resources projected to be available. Using the major combat forces in the Army fiscally constrained force, extensive analysis determines the complementary combat, combat support, and combat service support force structure. In the force structuring process, the major combat forces, referred to as "above-the-line" forces (divisions, brigades, regiments and groups), are directed by the DPG. "Below-the-line" forces, which are echelon above division/echelon above corps (EAD/EAC) combat, combat support, and combat service support force structure, are derived from TAA.

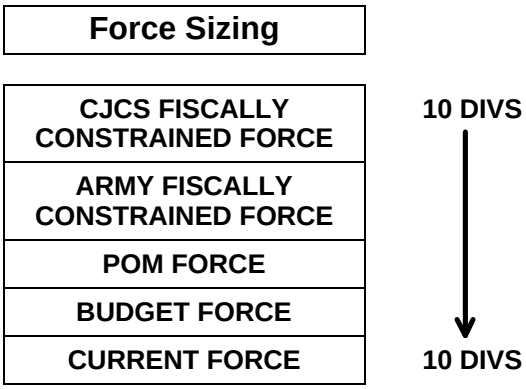


Figure 6-1. Force Sizing

c. The POM force is a balance between resource availability reflected in the Army POM, the Army's major programming input into the PPBS. Risks associated with the POM force are addressed in the CPA.

6-7. Joint Operations Planning and Execution System

JOPES is the final element in the DOD management system and focuses on operational planning. JOPES is oriented on the most effective use of the nation's current military capability against the near-term threat.

Section III: Organizational Design and Requirements Documentation

6-8. Organizational design process

The building blocks of the force structure that support operations planning are units, which are grouped into organizations; for example, companies grouped into battalions. When a new or modified Army organizational structure is required, new units and organizations are designed.

a. Identification of organizational issues.

(1) The organizational design process is initiated by the identification of issues that originate from the combat development process, the CINCs, the MACOM commanders, TRADOC school commandants and center commanders, other Army commanders, or the Department of the Army Staff.

(2) Issues are concerned with enhancing unit or force capabilities and result from changes to doctrine, new or revised operational (branch/ functional) concepts, acquisition of new equipment , or significant restructuring of a MOS.

(3) When it is determined that an organizational solution to an issue is appropriate, new or revised operational concepts that address a unit's mission, functions and required capabilities are developed to provide the basis for organizational design.

b. Unit reference sheets. An organizational solution requires the development of a unit reference sheet (URS). The URS is the first organizational document that leads to the development of a table of organization and equipment (TOE). It provides much of the information that will subsequently be refined and documented in the TOE.

(1) Combat developers of TRADOC, the Army Medical Department Center and School, U.S. Army Special Operations Command and the U.S. Army Intelligence and Security Command are responsible for developing URS for their functional areas. As a minimum, a URS contains the following:

(*a*) Personnel requirements by job title, grade, and quantity.

(*b*) Major equipment requirements to include nomenclature and quantity.

(*c*) A breakout of organizational elements with related personnel and equipment requirements.

(*d*) A summary that includes other relevant information such as unit title, design description, mission, assignment, assumptions, limitations, dependencies, mobility requirements, and concept of operations.

(2) The combat developer coordinates the URS to identify other doctrinal, organizational, training, leader development or materiel impacts such as requirements for increased maintenance, supply, transportation, and medical force structure. The design is then submitted to HQ TRADOC for design approval and for introduction into the force design update (FDU) process, if appropriate.

c. Force design update.

(1) The FDU is a semi-annual process used to develop consensus within the Army on new or changed organizational designs and to obtain CSA implementation decisions for such designs when they—

(a) Require a policy change.
(b) Affect the war-fighting capability of a CINC.
(c) Require additional resources
(d) Implement a new concept.
(e) Have high visibility or sensitivity.

(2) The TRADOC Commander is the Army approval authority for organizational requirements and designs. The TRADOC Deputy Chief of Staff for Combat Developments (DCSCD), in coordination with the DA DCSOPS, determines which designs meet the FDU criteria for obtaining a CSA implementation decision. Designs that do not meet the FDU criteria are not addressed further in the process except, in selected cases, as informational items.

(3) The Force Design Directorate (FDD), DCSCD, TRADOC, manages the FDU process. FDD is responsible for analyzing issues in the TRADOC domains of doctrine, training, leader development, organizations, materiel and soldiers (DTLOMS) and assessing and detailing the resource impacts (such as costs of personnel, materiel, facilities) of adoption of the new or changed units or force designs.

(4) FDD establishes a briefing schedule and provides briefings on the results of the analyses to the MACOM and Army component commanders and to the CINCs for comment and to gain consensus. Subsequent to TRADOC design approval, the ARSTAF and the VCSA and CSA are briefed for implementation decision.

(5) CSA implementation decisions are not always approvals for immediate execution. Often they are approvals for documentation as new or revised TOEs and for subsequent competition for resourcing through the TAA process. On the other hand, issues and designs without resource requirements that are approved at any level are approvals for TOE documentation and implementation at the earliest possible date. They do not need to compete in TAA.

(6) Approval of a URS and its associated concepts and the HQDA implementation decision

ends the organizational design process. The design is then handed off from TRADOC to the Requirements Documentation Directorate (RDD), USAFMSA, a DA DCSOPS field operating agency, for documentation as a new or revised TOE.

6-9. Documentation of requirements in TOE

a. Tables of organization and equipment.

(1) TOE are organizational models which state the minimum mission essential wartime *requirements* for personnel and equipment needed for accomplishment of a unit's doctrinal wartime mission. Approved TOE are used in force planning and subsequently in the development of MTOE which are *authorization* documents against which personnel and equipment resources are programmed for allocation.

(2) The TOE is the end product of the combat development process. It merges, into one document, the results of the requirements determination process. This includes—

(*a*) Operational (functional/branch) concepts.

(*b*) Manpower Requirements Criteria (MARC).

(*c*) Basis of issue plans.

(*d*) FDU decisions.

(*e*) Other related documents and requirements systems.

b. Manpower Requirements. Manpower requirements that are documented in TOE are based on Department of the Army approved criteria.

(1) *Variable (workload driven) criteria.* Manpower requirements for combat support (CS) and combat service support (CSS) positions are based primarily on workload data for a function.

(*a*) The number of mechanics required to support the tanks in a tank battalion is computed on the basis of the annual man-hours of workload generated by scheduled and unscheduled maintenance actions for the battalion's tanks.

(*b*) The required number of personnel specialists, finance specialists, or cooks is based on the number of soldiers supported.

(2) *Standard criteria.* These criteria include staff positions and senior enlisted supervisors such as commanders, first sergeants, command sergeants major and operations NCOs.

(3) *Doctrinal criteria.* Requirements for combat positions, such as the number of soldiers in a rifle squad, are based on doctrine. The number of crewmen required for a tank, though doctrinal, is a function of the tank's crew positions. Some noncombat positions, such as primary staff positions, may also be prescribed by doctrine (in this case, FM 101-5).

(4) *MARC studies.* Variable and standard MARC are established through the conduct of studies that provide a complete explanation of the function, skills involved, and the methodology employed to establish the proposed criteria. RDD of USAFMSA conducts these MARC studies in coordination with the MOS or functional proponents. After they have been coordinated with the proponents for all TOE that will be affected by the new or changed MARC, the studies are reviewed by HQDA staff agencies and approved or disapproved by the DA DCSOPS. Approved MARC are then disseminated for use in documentation of TOE. MARC are reviewed and/or revised at least every three years.

(5) *Personnel requirements for new or improved equipment.* Determining personnel requirements for the operation and support of new or improved equipment is a special case. Personnel requirements for TOE are developed as qualitative and quantitative personnel requirements information (QQPRI) and documented along with equipment requirements in the BOIP for the equipment.

c. Basis-of-issue plans.

(1) A BOIP for new or improved equipment is an automated record that establishes the minimum mission essential wartime requirements (MMEWR) for the equipment and its associated support items of equipment and personnel (ASIOEP) in specific TOEs. It also identifies any equipment and personnel requirements to be replaced, if appropriate. BOIPs are developed on automated systems and are applied to specific TOEs by automated means.

(2) Materiel developers use the BOIP as input for concept studies, life-cycle cost estimates, and trade-off analyses during the R&D process.

(3) Force managers use the BOIP to plan and program the modernization of specific units through the provisioning of the new or improved equipment and its ASIOEP.

(4) MACOMs use the BOIP to plan and program for equipment, facilities, initial provisioning, and personnel required to support the new or improved equipment.

(5) An integral part of the development process for a BOIP is the development and refinement of the QQPRI. The QQPRI provides the following:

(*a*) MOS for operators, crew size, and special personnel tasks.

(*b*) MOS for maintainers for the principal item of equipment, its components with separate line item numbers (LIN), and associated support items of equipment (ASIOE). The QQPRI also provides an engineering estimate for the direct productive annual maintenance man-hours (DPAMMH) required for their support. The initial estimates for DPAMMH and their subsequent refinements are used to update the Army's maintenance MARC data base.

(*c*) The materiel developer coordinates the QQPRI with combat developers, personnel proponents, and other materiel developers throughout the development process. The final QQPRI data becomes part of the approved BOIP.

(6) Other types of BOIP are used in the TOE development process as the means for making changes to TOE based on changes in doctrine, personnel (for example, restructuring of an enlisted career management field), or equipment (for example, changing quantities of rifles and bayonets in a TOE).

(7) The final BOIP is required 30 months before the first unit equipped date (FUED) to allow for documentation of authorizations and development of modernization and institutional training.

d. Requirements for command, control, communications and computer (C4) equipment.

(1) Prior to documentation in BOIPs and TOEs, C4 equipment requirements are approved through the operational facilities (OPFAC) requirements rules process.

(2) This is a combat developments process for identifying requirements and establishing rules to govern the allocation of C4 equipment for specific functions in specific types of units and at specific battlefield locations (brigade, echelons above brigade, division, echelons above divisions, echelons above corps, and so on).

(3) OPFAC rules are developed by the TOE proponents and validated by the OPFAC review board at the U.S. Army Signal Center. After validation, the rules are sent to HQ TRADOC for approval.

(4) The U.S. Army Signal Center maintains an automated data base of approved OPFAC rules, each of which is identified by a unique five position alpha-numeric code. An approved OPFAC rule must exist in order to justify including a C4 equipment requirement in a BOIP or TOE.

e. Equipment readiness codes. All equipment in a TOE is coded with an equipment readiness code (ERC) to indicate the relative essentiality of the equipment to the organization. ERCs are an asset distribution tool that, when combined with the Department of the Army Master Priority List (DAMPL), allow DCSOPS to establish priorities for allocation of equipment that is in short supply. ERCs distinguish between primary mission and supporting mission equipment within the same unit. The codes are explained in Chapter 13.

f. Incremental TOE system. The incremental TOE system consists of base TOE records, groupings of related BOIP records, which are called incremental change packages (ICPs), and an ICP header list which is generated by the automated system.

(1) *The base TOE (BTOE).* The BTOE is the least modernized version of the TOE. An example would be a tank battalion TOE equipped with M60 tanks and VRC-12 series radios.

(2) *Incremental change packages (ICP).* ICPs are doctrinally sound groupings of one or more BOIPs consisting of personnel and equipment changes that will be incrementally applied to a BTOE to form a succession of intermediate TOEs (ITOE) as a unit is modernized. Figure 6-2 illustrates this concept. An example of an ICP would be a grouping of the BOIPs for radios in the single-channel ground and airborne radio system (SINCGARS) along with the BOIPs for their respective vehicle installation kits.

(3) *ITOE.* The ITOE reflects how an organization will look at a specific point in time based on the aggregation of ICPs applied to that point.

(4) *Objective TOE (OTOE).* The OTOE portrays a fully modernized unit upon application of all applicable ICPs.

(5) *ICP header list.* The ICP header lists all of the BOIPs (grouped by ICP) applicable to a specific TOE and sequenced in the order in which they are intended to be applied to the TOE. The ICP header list portrays the doctrinal modernization path (MODPATH) of a unit over time from the least modernized configuration to the most modernized. The ICP header list identifies all ICPs that pertain to a specific TOE and the sequence in which they are to be applied as the unit is modernized.

g. TOE strength levels. TOEs are documented with five strength levels. These levels provide force managers with options in a constrained resource environment.

(1) Level 1 depicts the personnel and equipment needed for the unit to effectively accomplish its missions on a sustained basis.

(2) Levels 2 and 3 reduce the number of personnel to approximately 90 percent and 80 percent, respectively, of level 1. These levels represent balanced organizational structures with reduced capabilities in terms of sustaining combat capability or the ability to perform the TOE's level 1 quantitative workloads

(3) Level B provides a means for conserving U.S. military manpower by allowing the substitution of other categories of personnel (such as local nationals and contractor personnel) in certain positions. Level B shows the minimum numbers of U.S. Army personnel required for command, supervision, technical, maintenance and other key functions. Type B organizations are only used for selected combat support and combat service support units. (A level A column appears in TOEs but it is not currently used.)

(4) Level C specifies staffing that provides the cadre for activation of a unit to one of the other levels.

(5) Equipment requirements remain at 100 percent at all levels except for individual equipment such as protective masks, tool kits and individual weapons.

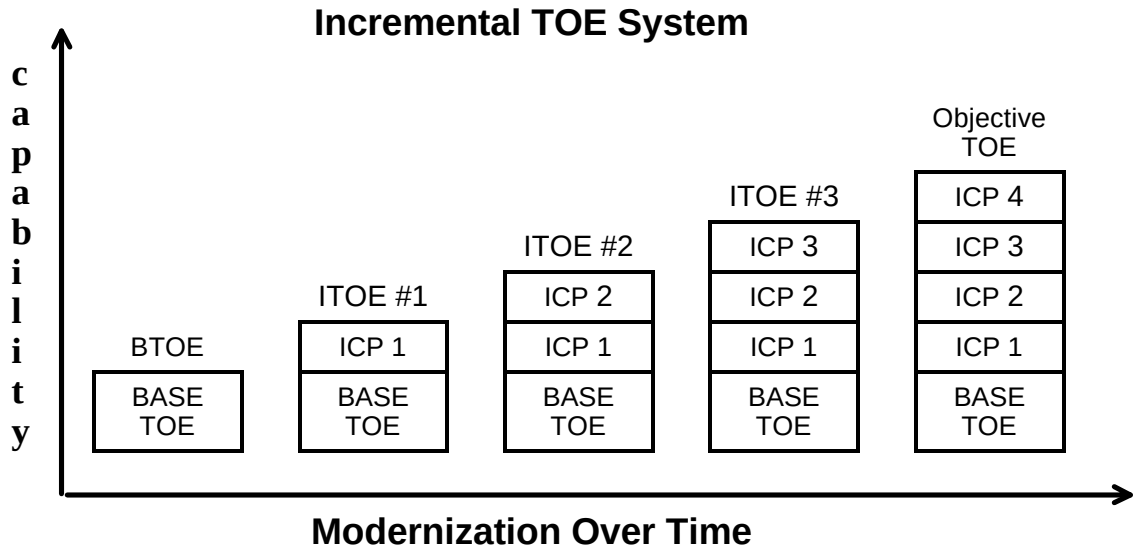


Figure 6-2. Incremental Table of Organization and Equipment System

h. Consolidated TOE update. TOEs and BOIPs are developed and maintained in an interactive, real-time, automated system called the Requirements Documentation System (RDS). The automated records for DA approved TOEs and BOIPs are recorded ("frozen") periodically in the automated system in a process called the Consolidated TOE Update (CTU). CTU records are then disseminated to the Army Staff, MACOMs, Army component commanders and other DOD activities for use in developing authorization documents, command plans, programs, budgets and many other purposes.

i. Use of TOEs in force planning. TOEs prescribe a particular type unit organization, manpower, and equipment and specify the unit doctrinal capabilities and wartime missions. They are the basis for developing authorization documents and determining future resource requirements. They are used to record and project the force structure of the Army through the POM years and extended planning period. When used with the master force database, they provide a force structure projection that reflects force levels in the program. Requirements documents are also used to depict the future force requirements in the Structure and Composition System (SACS).

Section IV: Force Structure Development

6-10. The influence of constraints

a. The mix of unit models that make up a balanced and affordable force structure must support joint and Army planning, programming, and budgeting at the strategic, operational, and tactical levels. Force development is based on an understanding of the objectives to be achieved, the threat, and constraints (dollars, end strength, roles, and missions). The primary differences among various force structures are the extent to which constraints are imposed and the time over which force structure requirements are forecast.

b. The determination of the size and content of force structure is an iterative, risk/benefit trade-off analysis process. The CJCS fiscally constrained force is capable of achieving the national objectives with some reasonable assurance of success. This force supports the joint strategic planning conducted by the Joint Chiefs of Staff and the CINCs of the unified combatant commands.

6-11. Supporting analysis

a. Analyses are conducted to identify critical near-term force structure deficiencies and readiness capabilities, resources needed to meet current and programmed requirements, and the distribution of these resources when translated into specific action programs.

b. The current force capability to mobilize, deploy, and sustain forces in combat is assessed by comparing its actual capabilities with its designed capabilities.

6-12. Total Army analysis

a. The Army's program force is developed during the TAA process. TAA analytically and subjectively generates the below-the-line tactical support forces and the general purpose forces necessary to support the above-the-line divisional and nondivisional combat forces contained in the Army fiscally constrained force (divisions, separate brigades, special forces groups, and armored cavalry regiments). The POM force is adjusted for affordability and executability to become the basis for POM development. The initial POM force becomes the approved POM force after determining which force structure initiatives will be included in the POM.

b. The TAA is a multiphased force structuring process consisting of qualitative and quantitative analyses. It generates tactical support and general purpose forces necessary to sustain the divisional and nondivisional combat forces designated in the Army fiscally constrained force. The DPG, The Army Plan (TAP) and TAA form the basis for the Army's POM development and establishment of the POM force.

c. The TAA consists of two phases, a requirements phase (force guidance and quantitative analysis) followed by a resourcing phase (qualitative analysis and leadership review). The sequence of the TAA activities is depicted in Figure 6-3.

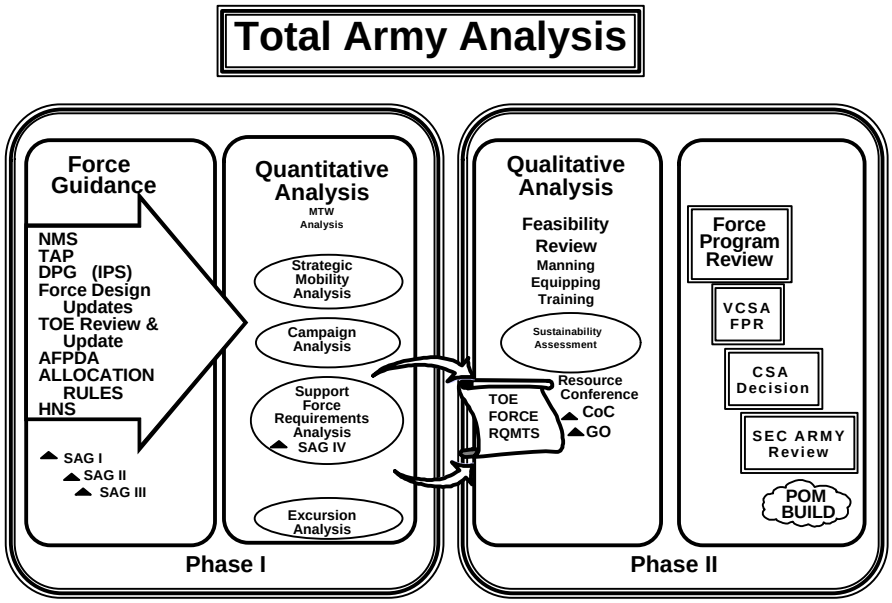


Figure 6-3. Total Army Analysis

6-13. TAA phases

a. Requirements phase.

(1) *Force Guidance.*

(*a*) Force guidance includes the DPG and TAP, which provide the NMS, threat data, and resource assumptions and priorities. DOD-directed scenarios are specified in the illustrative planning scenarios. The Army force planning data and assumptions (AFPDA) document is a single-source reference for theater-level studies and modeling that contains information concerning logistics and personnel planning, consumption and workload factors, host nation support offsets by theater, support to and from other services, stockage levels, and other planning factors crucial to force structure development. During the force guidance phase, allocation rules are reviewed and updated for use by the Concepts Analysis Agency (CAA) during the quantitative analysis phase.

(*b*) Allocation rules consist of—

- Existence rules that tie a requirement for one unit to the existence of another unit.
- Workload rules that tie unit requirements to a measure of workload.
- Manual entry (direct input) rules that are theater-unique requirements not identified in other allocation rules.

(*c*) The force guidance phase culminates with a senior advisory group (SAG) to address unresolved issues.

(2) *Quantitative Analysis.*

(*a*) Quantitative analysis determines tactical support requirements through a series of simulations. The strategic deployment analysis provides the strategic mobility forces and air/sealift data contained in the AFPDA. The output is port-to-port arrival times of combat and support units. This becomes input for the combat operations analysis, a war-fighting simulation that produces combat intensities and forward edge of battle area traces, casualty and ammunition consumption rates, and loss rates for major items of equipment. This information, along with allocation rules and logistics data, is used in the logistical operations analysis to generate support force requirements and a time-phased force deployment list.

(*b*) Using the forces generated by the logistical operations analysis, CAA produces a comparison report (MATCH) of newly determined doctrinal support requirements against current and programmed units.

(*c*) These simulations are completed for each scenario and the product of the quantitative analysis phase. The TAA decision force is sent to the MACOMs for review and issue formulation in preparation for the qualitative analysis phase.

b. Resourcing Phase.

(1) *Qualitative Analysis.*

(*a*) Qualitative analysis develops the initial POM force, within end-strength guidance, for use in the development of the POM. A series of analyses, reviews, and conferences, to include a council of colonels (COC) and a general officer (GO) conference, validates the computer-generated requirements. MACOM and HQDA inputs, proposed changes, and force structure issues centering on claimants versus billpayers are reviewed. The review centers on the analysis of each discrete level and type of TOE unit in the decision force and the integration of TDA issues.

(*b*) A Force Feasibility Review (FFR) precedes the final phase of TAA and examines the proposed force structure's capability to accomplish assigned and/or programmed missions by determining the affordability, supportability, executability and sustainability of the force by answering such questions as—

- Can the force be equipped? Is equipment already in the budget? Are there programs to support the equipment requirements for the force by year?
- Can the force be manned? Is the predicated mix of personnel, by component, grade and skill, available in the force?
- Can the force be provided facilities? Do facilities in current and budget construction programs meet the living, working and training needs of the force? Are the required facilities in the right locations?
- Can the force be trained? Do ammunition, procurement spares and stock-funded repair parts in the supply system support the desired unit training level each year? Do TRADOC and Reserve Component schools have the capability to support individual training requirements?
- Can the force be sustained? Are spare parts and depot maintenance output available to support the desired OPTEMPO?

(2) *Leadership Review.*

(*a*) Leadership review begins after qualitative analysis to resolve issues before briefing the Army leadership in the fourth step in the process. The VCSA chairs a force program review to review and resolve any issues, which is then briefed to the CSA for decision. The resulting TAA base force represents the force structure for POM development and includes all authorized structure for all components through the POM years.

(*b*) The product of the TAA and POM processes is the approved force structure for the Total Army. It is divided into multiple components: the Active Army (COMPO 1), the ARNG (COMPO 2), the USAR (COMPO 3), and required but unresourced units (COMPO 4).

(*c*) Other components include—

- Army prepositioned (PREPO) sets of equipment (COMPO 6).
- Direct host nation support (COMPO 7); guaranteed by host nation support agreements.
- Indirect host nation support (COMPO 8); the CINC's estimate of how much additional indigenous labor would be available in wartime
- Logistics civil augmentation (COMPO 9); contracts for additional support and services to be provided by domestic and foreign firms.

(d) Direct and indirect host nation support and the logistical civilian augmentation program (LOGCAP) comprise offsets for requirements for Army structure that are reasonably assured by negotiated host nation support agreements, estimates, or contracts.

Section V: Authorization Documentation

6-14 Purpose

Unit authorization documentation can be viewed as the integration of unit model design and force structure development. Authorization documents provide each organization or activity with the structure, personnel, and equipment to accomplish its mission or function. An authorization document constitutes authority to requisition personnel and equipment and is the basis for measuring unit status. The authorization document system is used to manage all aspects of personnel and materiel procurement, force planning, programming, budgeting, training, and distribution.

6-15. The command planning process

a. Active Army.

(1) The command planning process begins with the forces reflected in the master force (MFORCE) (current and programmed).

(2) MACOM plans are developed based on HQDA guidance and command initiatives. HQDA guidance as to which units to document, what CTU to use and PBG constraints includes the Army structure message (ARSTRUC), which documents TAA decisions, and management of change (MOC) window guidance.

(3) These inputs are used by the MACOM to develop subsequent guidance that directs subordinate organizations to submit a plan recommending the allocation of manpower by specific units. Command plans are developed by integrating the plans submitted by the subordinate organizations, considering earlier MACOM POM submissions, and incorporating the results of MACOM analysis and decisions. Command plans submitted to HQDA for review and approval contain troop lists representing the current and projected forces of the command, results of executability assessments, and justification for any deviation from HQDA guidance. Those command plan initiatives that are approved are used to update the master force and are the basis for the authorization documentation process.

b. Reserve Components. The ARNG and USAR prepare command plans and develop plans for force structure actions. The Chief of Army Reserves provides the troop action guidance to FORSCOM. FORSCOM (USARC), U.S. Army Europe (USAREUR), and USARPAC, prepare a reserve component program that contains all organizational actions planned for the USAR in the program years. The reserve component program is submitted to the OCAR for review in coordination with HQDA. The NGB, in coordination with the state adjutants general, produces the ARNG troop structure program (ARNG-TSP). The ARNG-TSP, which contains all organizational actions for three years, is submitted to HQDA for review after acceptance by the states.

6-16. Documentation process

The MTOE documentation process is illustrated in Figure 6-4.

a. The MFORCE.

(1) The MFORCE contains the data necessary for force structuring, force planning, and accounting of all Army units. The MACOMs maintain a copy of the MFORCE with internal automated force structuring data capability. The MACOM database interfaces with the HQDA MFORCE by means of distributed Structure and Manpower Allocation System (SAMAS). The MFORCE is reconciled semi-annually at HQDA with the authorization database by the Automatic Update Transaction System (AUTS). AUTS is a comparison of SAMAS force structure programming, PBG resources and The Army Authorization Document System- Redesign (TAADS-R) documentation. AUTS is the process by which HQDA approves or disapproves authorization documents.

(2) The MFORCE is designed to capture national policies, mandates, and directives from OSD and Congress. This force structure and documentation guidance permits development of authorization documents to account for personnel and materiel allocation. This guidance is obtained when the MFORCE (established by the DPG and TAA for POM submission) and OSD/HQDA guidance (in the form of defense management reviews, program budget decisions, and Army management reviews) directs specific force structure actions be carried out within allocated resources over time. Troop lists for current, budget, and program years are provided in the master force database as the official force structure record. It accounts, by UIC, for COMPOs 1, 2, 3, 4 and 6, over time, with supporting information to include missions, organizational data, program applications, and descriptions.

b. Command Plan Development.

(1) Distributed SAMAS is provided to the MACOMs to initiate the development of command plans. Development of command plans begins before the receipt of input, using advance (draft) information provided by HQDA.

(2) Command plans are compared with the master force structure files, PBG, and draft TAADS-R documents to determine MACOM agreement with HQDA guidance and direction. Procedures for reviewing the different plans are the same, although the mechanisms used depend on the format of the plan. The master force is updated based on command plan review and approved force structure changes. The process is completed when changes from all plans are used to create a new MFORCE. This new MFORCE reflects all force structure actions taken to comply with the PBG and other management decisions.

c. The Structure and Composition System.

(1) The Structure and Composition System (SACS) (Figure 6-5) is updated to reflect the latest BOIP, TOE, SAMAS, and TAADS-R positions and known resource constraints (positive and negative "wedges" in the budget not yet reconciled at UIC level of detail), to produce the logistics (LOGSACS) and personnel (PERSACS) component databases. These products are comprehensive, multiyear listings of personnel or equipment authorizations and requirements for the total force.

(2) PERSACS describes the required and authorized manpower of the force; however, the office of the DCSPER (ODCSPER) and the U. S. Total Army Personnel Command (PERSCOM) use the Personnel Management Authorization Document (PMAD) in lieu of PERSACS due to their ability to continually update PMAD. The PMAD data base is also reconciled with the SAMAS and TAADS-R data bases. PERSACS is also used for troop support planning in the facilities process by the Army Stationing and Installation Plan (ASIP). ASIP also uses structure and manpower allocation system civilian manpower data as an input to its planning analysis.

(3) Guidance for documenting equipment authorizations is provided by the TOE/SRC and its modernization level (BOIPs and ICPs applied as the result of approved systems distribution plans).

(4) LOGSACS describes the equipment of the force and is the principal input to the Army equipment distribution program (TAEDP). It produces an equipment distribution program for the current, budget, and program years and supports Army modernization by supplementing new and displaced equipment planning information in the BOIP. It provides essential details such as quantities of equipment and distribution dates by unit.

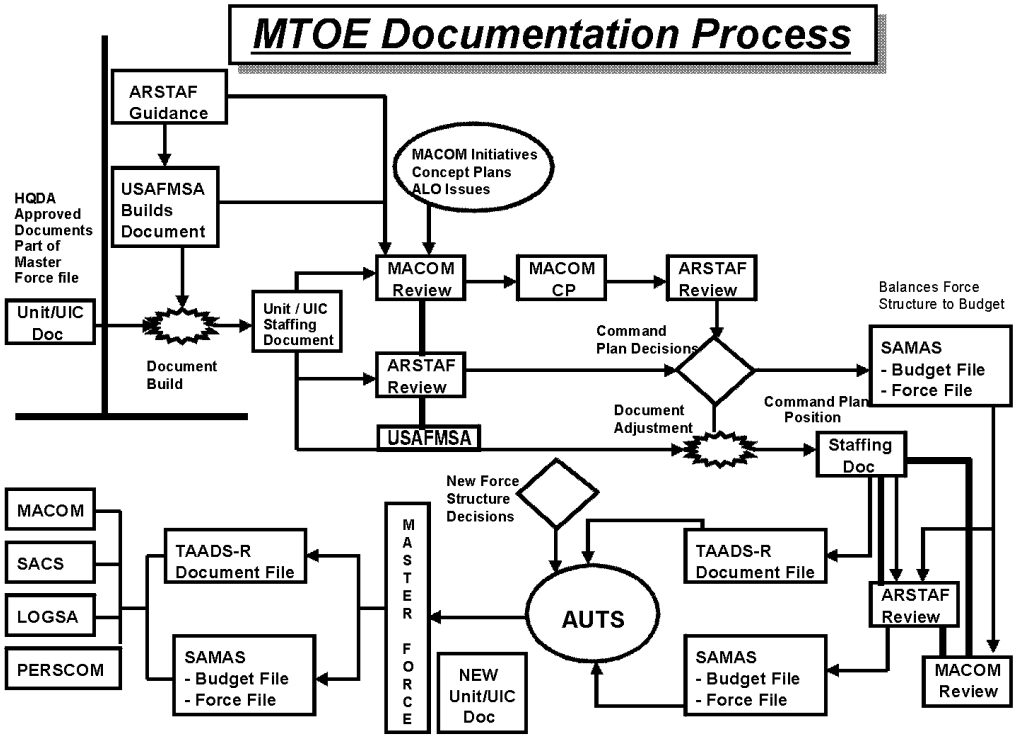


Figure 6-4. Documentation Process

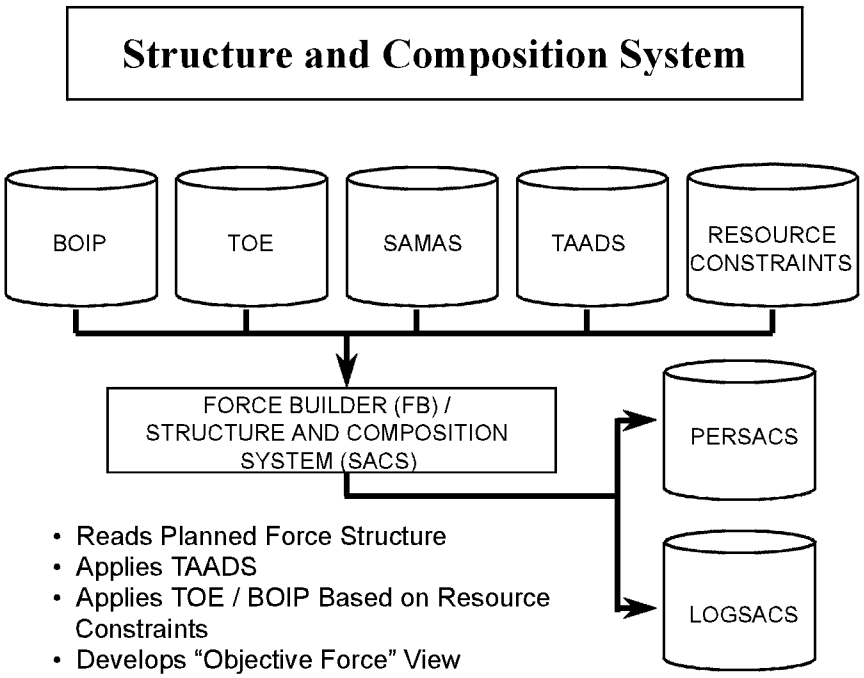


Figure 6-5. Structure and Composition System

6-17. Authorization documentation

The authorization documentation schedule is shown in Figure 6-6.

a. Uses of authorization documentation. Every organization and activity must have an authorization document to reflect an organizational structure that is supportable by the manning and equipping systems. Authorization documents state a unit's approved structure and resources and serve as a basis and authority for requisitioning. Changes to authorization documents require synchronization to ensure that direct and general support organizations (such as supply, transportation, maintenance, fire support) effect necessary change prior to the organization(s) they support.

b. Automated documentation system. The development of authorization documents is supported by an automated system that contains all unit authorization documents. It maintains quantitative and qualitative personnel and equipment data for individual units and the entire Army force structure. It provides standardized authorization documents for similar parent units and an interface with other automated systems. The authorization document data maintained in the database include organizational structure and personnel and equipment requirements and authorizations at the same level of detail for both MTOE and TDA organizations.

c. Modification table of organization and equipment. The MTOE prescribes the unit organization, personnel, and equipment authorized to accomplish its doctrinal wartime mission at a specific point on its MODPATH. MTOEs are for warfighting units. They reflect allocation of manpower and equipment resources in order to accomplish those doctrinal wartime missions. When a unit is organized at ALO 1, it will normally be authorized 100 percent of all equipment and personnel required in accordance with their level of modernization. When a unit is organized at ALO 2, they will normally be authorized 100 percent of the major equipment items designated with equipment readiness code (ERC) A (less individual items such as weapons, bayonets, protective masks) and between 88 and 98 percent of their required personnel strength. Units organized at ALO 3 (or less) may have authorizations for major items of equipment reduced; however, ERC A items should be considered for retention when possible. Units organized at ALO 3 will be authorized between 78 and 88 percent of their required personnel strength.

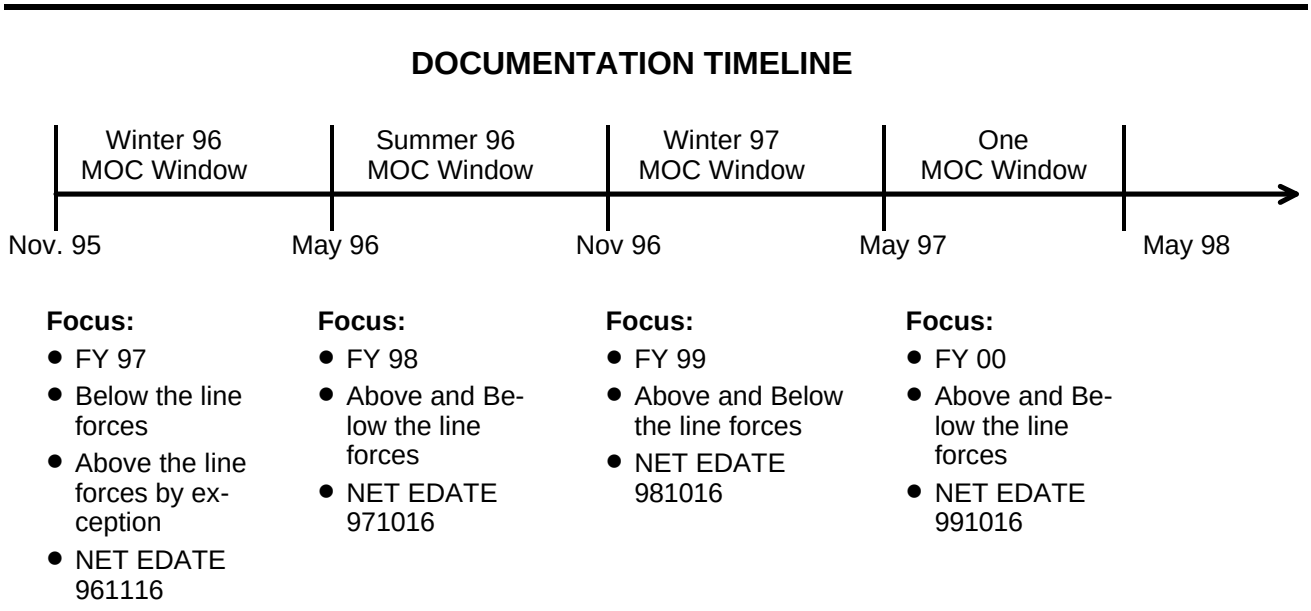


Figure 6-6. Authorization Documentation Schedule

d. Table of distribution and allowances.

(1) The TDA prescribes the organizational structure for an organization or activity with a mission or function for which a TOE does not exist, and may include civilian positions. TDAs are unique authorization documents to attain the most efficient use of personnel and the most effective operational capability within the manpower spaces prescribed in the command force structure to accomplish specific missions and functions. Activities with similar missions may be similar in organization but have substantially different personnel and equipment authorizations due to differences in workload and the demographics of the population they support. A TDA is used for the same purposes as a MTOE except for unit status reporting, which is not usually required of TDA activities. Manpower determination standards and standard installation organization models establish personnel requirements and authorizations. Equipment utilization data and BOIP will be used to develop TDA materiel authorizations. Types of TDA documents include—

- Mobilization TDA.
- Augmentation TDA.
- Full-time support TDA.
- Joint table of allowance/joint table of distribution.

(2) However, the basis for developing the two documents differs. MTOEs are derived by application of BOIPs/ICPs to Base TOEs to meet specific operational, environmental, or modernization requirements and are consistent with the mission and the availability of manpower spaces as prescribed in the approved command plan adjusted force structure.

e. Modification of authorization documentation.

(1) *Concept plan requirements.* Concept plans are required from the MACOM to obtain HQDA approval of unprogrammed requirements for force structure, manpower, or materiel. The concept plan will state the purpose, objectives, advantages, and disadvantages of the proposed activation or reorganization. Proposed authorization documents are submitted concurrently with the plan to accelerate the review process. Approved concept plans do not serve as an authorization document but support the creation of one.

(2) *HQDA review.* HQDA reviews all authorization documents to ensure compliance with standardization of mission, capabilities, organization, ALO, and the allocation of resources. Organizations will not substantially change authorization documents more than once a year. Substantial change is any personnel and/or equipment change that creates a resource demand on the Army. Department of the Army policy provides that one authorization document (MTOE or TDA), one CTU, and one edit (POSC-edit {personnel occupational specialty code—edit file} for personnel and LINEDIT {LIN edit} for equipment) per unit, per year will be applied in order to reduce turbulence.

(3) *Demobilization requirements*. The process of activating new organizations and converting and reorganizing existing organizations is evolutionary. It is based on capability increases in doctrine, force design, and acquisition of materiel. However, the demobilization process requires that decreased levels of capability be determined and force structure be inactivated. The processes of increasing and decreasing force capability are identical in the incremental approach to total organizations. Like modernization, force reduction considers impacts on direct and general support organizations. Force capability is reduced by inactivations of organizations followed by support structure and support infrastructure.

Section VI: Summary

Structuring the Army is accomplished by execution of DPG and TAP directed "above-the-line" force structure (divisions, brigades, regiments and groups) and TAA derived EAD/EAC "below-the-line" combat, combat support and combat service support force structure documented in the total force. Planning, programming and documentation of doctrinally correct requirements and budget supported authorizations result in combat ready units.

Chapter 7
Manning the Force

Section I:
Introduction

7-1. Manpower constraints

The Congress, Office of Management and Budget (OMB), Office of Personnel Management (OPM), Office of the Secretary of Defense (OSD), and Office of the Secretary of the Army (OSA) establish annual manpower end-strengths. They develop policies that may restrict the availability of military and civilian manpower or limit the latitude available to personnel managers. Policies may limit permanent changes of station (PCS), set tour lengths, set officer grade limitations, or place a ceiling on local national hires.

7-2. Manpower management

Manpower management determines minimum essential requirements, alternative means of providing resources, and the policies to be followed in utilizing manpower. It involves the development and evaluation of organizational structure and reviews the use of active, National Guard, USAR, and civilian personnel. It also includes contractors when contractual services are appropriate to satisfy manpower requirements.

7-3. Role of manpower managers

Manpower managers deal with the efficient and economic use of human resources within the organizational structure. They focus on requirements demanding specific grades and skills to perform specific tasks before determining which requirements to support with authorizations (spaces). Personnel managers implement authorizations through the acquisition, training, and assignment of personnel (faces) to authorized positions.

Section II:
Army Manpower

7-4. Manpower spectrum

a. Total military strength. The total military strength of the Active Army is a dynamic measure of personnel "faces" consisting of the operating strength (personnel available for assignment to authorized positions), and the individuals account (personnel not available for assignment to authorized positions). Figure 7-1 depicts these accounting categories. The individuals account, is also called the transients, trainees, holdees (hospital), and students (TTHS) account. TTHS accounts for personnel moving between assignments or preparing for future assignments. The size and composition of TTHS will vary throughout the year due to seasonal increases in transients during the summer and in trainees during the fall and winter.

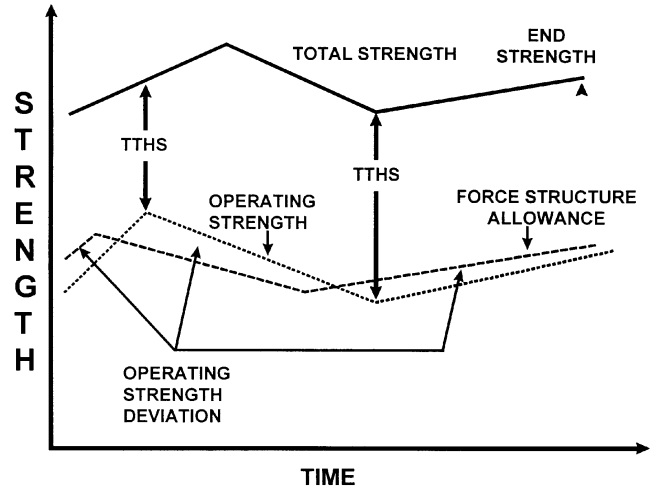


Figure 7-1. Military Manpower Spectrum

b. Force structure allowance. Force structure allowance is a dynamic measurement of manpower "spaces" authorized in organizations and activities. It changes daily as organizations activate, inactivate, reorganize, and convert. The dynamic nature of "faces" and "spaces" creates an environment of continuous fluctuation and variance.

c. Operating strength deviation. The difference between the operating strength (faces) and the force structure allowance (spaces) is the operating strength deviation. This deviation may be positive (personnel inventory exceeds authorizations), negative (personnel inventory is less than authorizations), or be negligible (balanced). Manpower and personnel managers monitor the operating strength deviation and adjust personnel policies to create the best match of personnel, by grade and skill, to authorized positions. The goal is to meet the congressionally authorized end strength on the last day of each fiscal year while maintaining a balanced fighting force.

7-5. Force alignment

Force alignment manages the dynamics of personnel and authorizations by grade and skill to ensure the active component operating strength is qualified and available for distribution. Force alignment is the synchronization of recruiting, accessions, training, reenlistment, promotions, and reclassification. Special and incentive pays are also available to provide professional career development consistent with force manning levels for qualified soldiers. The goal is to achieve a grade and skill match between operating strength and force structure authorizations for the current year, budget year, and program years.

7-6. Active Army Military Manpower Program

a. The Office of the Deputy Chief of Staff for Personnel (ODCSPER) produces the Active Army Military Manpower Program (AAMMP) as monthly updates and as decision programs for the POM, OSD budget submission, and President's budget. The AAMMP projects the strength of the Army; losses and gains; training inputs; officer, cadet, and female programs; and TTHS account.

b. The AAMMP consists of data from the Enlisted Loss Inventory Model—Computation of Manpower Using Linear Programming (ELIM-COMPLIP), female ELIM, Officer Projection Aggregate Level System (OPALS), and TTHS forecasting system. ELIM-COMPLIP uses six years of historical loss behavior to project future loss behavior. ELIM-COMPLIP uses linear programming to operate within multitude constraints, such as end strengths, man-years and recruit quality levels, to minimize the projected operating strength deviation.

Section III: Personnel Documentation and Acquisitions

7-7. Personnel management authorization documentation

a. Personnel Management Authorization Document. ODCSPER builds the PMAD from the Army's MFORCE and TAADS-R. PMAD is the basis for decisions on accessions, training, force alignment, promotions, and distribution of personnel. Periodic adjustments to PMAD are made using an updated authorizations document (UAD) to capture changes. PMAD and UAD focus on details for near-term distribution. Therefore, the personnel community uses PMAD and its most current UAD as the sole source of Active Army authorizations by UIC, MOS, grade, and additional skill identifier (ASI) level of detail for the current and budget years.

b. Total Army Personnel Database (TAPDB). The TAPDB is an automated, standardized inventory database containing military personnel data. It supports the manning and sustaining functions during peacetime and under mobilization. TAPDB active officer/enlisted (TAPDB-AO/TAPDB-AE) contains personnel information on individual officer and enlisted personnel.

7-8. Personnel acquisition

a. Enlisted Acquisitions.

(1) The Military Occupational Specialty Level System (MOSLS) projects numbers and training requirements for all MOS based on PMAD (authorizations by skill and grade), TAPDB-AE (skills and grades on hand), and AAMMP (projected accessions in the aggregate). The enlisted procurement process is shown in Figure 7-2.

(2) The U.S. Army Recruiting Command (USAREC) recruits the quantity and quality of recruits to meet Active Army and USAR requirements. USAREC uses the Recruit Quota System (REQUEST) to translate the personnel needs of the force into total recruiting objectives. REQUEST provides the means of allocating training seats or opportunities to accessions. Except during mobilization, enlistment options depend on Army MOS requirements and mental and physical aptitude of the applicant. A matching algorithm aligns applicant qualifications and aptitudes to the Army's needs.

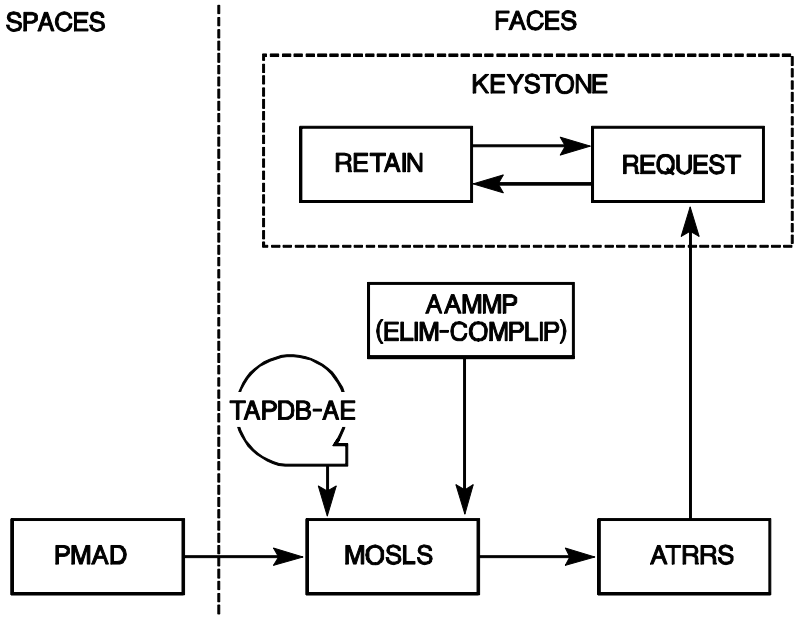


Figure 7-2. Enlisted Procurement Process

b. Warrant officer acquisitions. Warrant officers are single-specialty, system-oriented officers appointed to perform a single function throughout their careers. USAREC recruits candidates for the active component. ODCSPER develops recruiting goals to fill shortages by fiscal year. Applicants come from Active Army enlisted ranks, enlisted personnel from other Services, technically qualified civilians, commissioned officers, and members of the Reserve Components.

c. Officer acquisitions.

(1) Officer basic branches are procured through the Officer Candidate School, Reserve Officers Training Corps (ROTC), and United States Military Academy. Special branches (Medical, Judge Advocate, and Chaplain) select officers through individual branch programs. Service obligations for officers vary with each program.

(2) OSD-mandated officer strength ceilings constrain officer end-strength. Public law limits the percentage of the officer corps in the grade of major or higher. Annual accessions must ensure availability of officers by grade, branch, functional area, and skill over the life cycle of the year group.

Section IV: Distribution and Assignment

7-9. Management of personnel inventories

a. The distribution and assignment processes place the right soldier, in the right skill, at the right place, at the right time. MOSs and grades are nearly in balance when the overseas-to-sustaining base ratio is supportable and there is a high density of personnel in substitutable skills. When these conditions do not exist, shortages require sharing by all commands in the distribution and assignment processes.

b. Organizations exempted from "fair share" due to operational priority or modernization increase the depth of shortages in lower priority organizations. The decision to exempt organizations from fair share manning must consider the impact across the force during the period of exemption. When the highest force level, usually the MACOM, makes and manages this decision, the impact will normally decrease proportionally.

c. The distribution and assignment systems support a number of known scenarios (peace, limited mobilization, and full mobilization) and can evaluate "what if" scenarios. Based on the scenario, assignments of individual replacements and unit packages are altered and transmitted to the field.

d. Personnel distribution varies based on assets on hand, authorizations, and priorities according to a master distribution plan that ensures all commands, agencies, and activities receive, in priority, an appropriate share of the available inventory.

7-10. Enlisted distribution

a. Variables which affect enlisted personnel distribution include changes to force structure, recruiting, training attrition rates, retention rates, authorizations, funding constraints, end strength, and the unpredictability of the individual soldier. Addition-

ally, the accuracy and timeliness of data affects the analysis of distribution options. Unprogrammed force structure changes make the distribution system less responsive.

b. Priorities for the distribution of enlisted personnel are the result of initial assignments, PCS reassignments, reassignments within commands, and unit moves. Distribution variables include approved authorizations documented in PMAD/UAD, directed military overstrengths, space imbalanced MOS (SIMOS) overstrengths, overstrengths in specific high priority units, and personnel priority group codes in the DAMPL. Special priorities consider operational and training requirements for special skills, such as Ranger and linguist, which do not necessarily correspond to DAMPL.

c. Enlisted distribution management projects personnel strength of major overseas commands, FORSCOM and TRADOC installations in CONUS, and special management and functional commands worldwide from the current month out to 11 months. The current enlisted distribution policy establishes the number of soldiers distributed to commands. Aggregate totals by rank bands (PVT-SPC, SGT-SSG, SFC-SGM) are the basis for transitioning to individual MOS requirements.

7-11. Distribution considerations

a. Forward deployed forces and early deploying forces are structured at higher ALO and often manned at or above ALO. Later deploying organizations are structured at lower ALO and filled to ALO 1 in the predeployment phase of operations. Congressional mandates, OSD ceilings, PBG, and military manpower strength projections govern OCONUS troop strength. PERSCOM manages the aggregate enlisted strength against the PBG rather than the PMAD authorizations.

b. PERSCOM validates requisitions submitted by MACOMs based on projected requirements. Discrepancies between projections and requisitions occur when PERSACS does not contain authorization changes or when PERSCOM has more current authorizations data through PMAD or more current gain or loss data. Assignment processing for validated requisitions occurs after problem resolution.

c. Organizations undergoing activation, reorganization, or conversion are exempt from fair share manning during the transition period to accomplish the force integration mission. Failure to man units at 100 percent or higher of the minimum mission-essential wartime requirement degrades the processes necessary to incorporate and ultimately sustain changes in doctrine, structure, or materiel. Key personnel by MOS and ASI, must be available and stabilized through and beyond the transition period to ensure the viability of the changes to the organization. Similar personnel management of direct support organizations ensures availability and stability of low density skills in these organizations. Personnel are a key link to modernization as part of a total system approach.

Section V: Personnel Sustainment

7-12. Maintaining balance

a. The goal of the manning system is to create a stable unit environment by managing personnel turbulence so that organizations can achieve higher levels of cohesion and collective proficiency. Planners and executors of change must reduce organizational turbulence during the transition to a higher level of capability.

b. Personnel sustainment depends on authorizations being documented at least two years prior to the effective date (E-date) of change. The lead time is necessary to ensure that the personnel acquisition system and the training system can support changes in the force structure.

c. To maintain balance and capability in the force, the separation of officers, warrant officers, and enlisted personnel is a continuous process. In each case, procedures are in place for qualitative and, when required by Congress, quantitative reduction of the force. No person has an inherent right to continued service.

7-13. Authorizations documentation

Military and civilian personnel planning activities use the output data of various supporting information systems. These include authorizations, accessions, gains and losses, promotions, career area management plans (career management field and area of concentration for military), and many other personnel actions.

a. Military personnel.

(1) MACOM command plans contain aggregate authorizations by UIC and the authorization database shows grade and skill-specific detail. Approved command plans are the basis for master force revisions and proposed authorization document changes are the basis for revision of the authorization database. The AUTS process compares and resolves differences between the two files.

(2) Standard Installation/Division Personnel System (SIDPERS) transmits changes in military personnel status to officer and enlisted databases. These files are the source of current active force military inventory data to include grade, skill, and UIC, and portray these changes over time for personnel analysts.

(3) Enlisted personnel, warrant officers, and officers are subject to separation actions. These include release from active duty, discharge, nondisability retirement, physical disability retirement, and separation and resignation.

(4) The qualitative management program (QMP) consists of two subprograms used to improve the enlisted career force. Qualitative retention establishes retention control points that are specific time-in-service limits for each enlisted grade. Qualitative screening is the bar-to-reenlistment aspect of the QMP. Soldiers receive a Bar to Reenlistment when not selected for retention.

(5) Reserve force personnel inventory and projected inventory data files have the same detail as the active force. At mobilization, these files are incorporated with the Active Component file. Budget modules, that reflect costs for all years within the PPBES, calculate Military Personnel-Army costs and Reserve Component personnel costs by pay category.

b. Civilian personnel.

(1) The civilian personnel system is similar to the military system. It identifies the objective force or force structure required to support the Army, formulates personnel policies, and manages career progression.

(2) The Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA(M&RA)) is responsible for civilian manpower management. Civilian manpower authorizations are documented in the master force at the program element (PE) level for program manager controls and analytical purposes. After the ARSTAF makes decisions on authorizations, they send them to the MACOMs via the PBG and the manpower addendum to the PBG from the master force.

(3) The MACOM POM and command budget estimates (Schedule 8) document civilian manpower utilization and update appropriate ARSTAF databases. Other inputs include out-of-cycle requests from MACOM commanders and Army leadership-directed actions.

(4) Installation civilian personnel offices report actual strength and civilian manpower obligation data. MACOMs develop civilian employment level plans. The civilian payroll system reports strengths, work-years, and obligations. These include execution year monthly strength projections for the Congress. The civilian forecasting system projects civilian inventory.

Section VI: Summary

A major objective of manning the force is to ensure the timely fill of a rapidly changing force structure that includes changes in the geographic location of the force. The size and location of the force change inside the PPBES cycle. This requires flexibility and a thorough understanding of the changes throughout the force. A major task of force management and a force integration is to predict the impact of decisions on organizations and the force as a whole. The Army's competitive edge will depend, in part, on the application of technology. The manning system must ensure the timely placement of soldiers with the proper skills and experience to operate new and improved systems coming into the force. Maintaining force readiness at the prescribed levels despite significant change will be a continuous challenge for commanders and staffs throughout the Army.

Chapter 8
Equipping the Force

Section I:
Introduction

8-1. Equipping goal

Successful integration of new or improved equipment into organizations increases force capability and depends on the effective synchronization of the equipping, structuring, training, manning, sustaining, stationing, and funding functions. Equipping progresses through R&D, to production, and materiel fielding. The goal is to increase overall warfighting materiel capabilities with a minimum expenditure of resources.

8-2. Command and staff involvement

Equipping the force involves operational commanders; materiel, training, and combat developers; logisticians; personnel managers; and design and facility engineers. They work within parameters that balance overall affordability against competing operational and support requirements that acknowledge the need to maintain the capabilities of the industrial base. Synchronization and integration of related activities involves organizations and staffs at all levels, to include the gaining units. Centralized planning, management, and decision support processes should also provide for the development of decentralized supporting plans and their execution.

8-3. Total system approach

The process of equipping organizations considers the introduction of materiel systems into the force, not disparate pieces of equipment. Systems are the sum of force structure, hardware, software, training, personnel, doctrine, facilities, support infrastructure, and resources. Every materiel item introduced must be viewed as a total system to reduce the negative impact on readiness. Materiel that is provided to organizations as a fully operable package reduces the impact on the gaining unit by lessening the period of time required to distribute, configure, and hand the system off to the user.

Section II:
Materiel Development and Acquisition

8-4. Policy guidance

a. DOD Directive 5000.1 and DOD Regulation 5000.2R provide mandatory DOD acquisition policy and procedures including materiel requirements documentation and approval guidance for major defense acquisition programs (MDAPs) for both materiel and automated information systems (AIS).

b. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01 MOP 77 mandates policy and procedural guidance for the requirements generation system to include guidance on key performance parameters (KPPs), measures of effectiveness (MOEs), and the JROC.

c. AR 70-1 provides Army acquisition guidance for materiel and information systems. AR 71-9 provides Army requirements determination and documentation policies and responsibilities implementing DODD 5000.1, DOD Regulation 5000.2R and MOP 77 supporting all Army acquisition categories (ACAT).

Note. The terms materiel and materiel system in this chapter apply to materiel and information systems unless specifically identified otherwise.

d. These documents establish an integrated management framework for a single, standardized DOD-wide acquisition system that applies to all programs including highly-sensitive classified programs.

e. The essential features of the DOD materiel acquisition system are—

(1) A clear acquisition strategy (AS).

(2) A thorough program plan.

(3) Risk management techniques.

(4) Systematic program tracking against the plan.

8-5. Scope

Materiel acquisition includes—

a. Activities from R&D through disposal. This includes three major decision making support systems:

(1) The requirements determination system.

(2) The planning, programming, budgeting, and execution system (PPBES).

(3) Acquisition system management.

b. Decision reviews, concept development, system development, production, testing and evaluation (T&E), human system integration (HSI), integrated logistics support (ILS), total package fielding (TPF), and training.

8-6. Materiel acquisition life cycle system management

a. Functional and temporal interfaces for materiel acquisition include programmatic sequencing and decision points. Figure 8-1 provides a general overview of program sequencing and decision points.

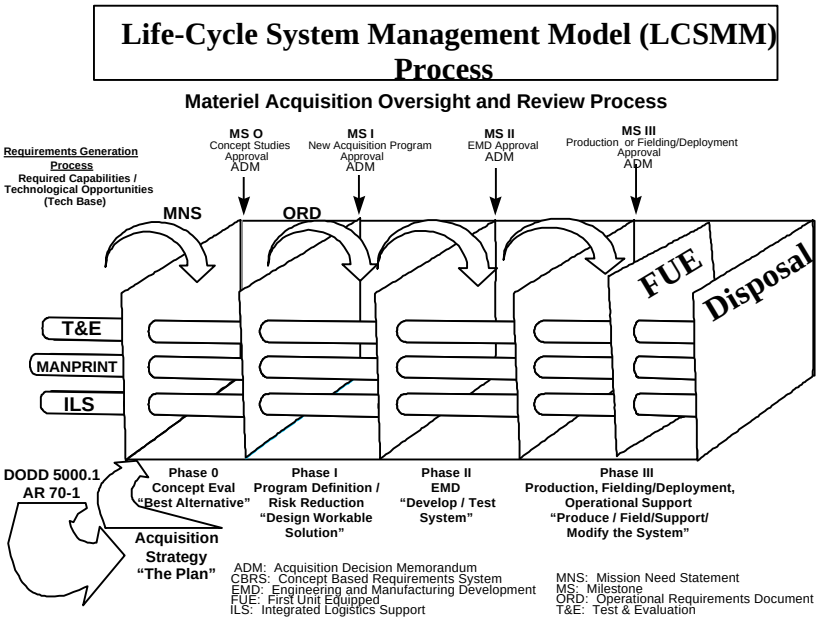


Figure 8-1. Materiel Acquisition Life-Cycle System Management Process

b. The acquisition process is characterized by four phases and four milestones that track a DOD program's progress throughout its development and program life. "Tailoring" is encouraged in each phase of the process to reflect specific program needs. In accordance with DODD 5000.1 "one size *does not* fit all." Together with its constituent activities, the process provides guidelines for combat, materiel, training, and force developers in all aspects of materiel program planning and execution. These range from determination of operational needs through maturation of technology, prototyping, testing, and evaluation. Production, fielding, and life cycle support are also included. Cyclic activities provide for opportunities to prioritize and allocate resources for programs, prepare and review documentation, and review and approve programs.

c. Integral to each acquisition program are the DOD and Component Acquisition Executives (CAE), Program Executive Officers (PEO), and program, project, or product managers (PM) along with management staff and user representation.

(1) The Under Secretary of Defense for Acquisition and Technology (USD(A&T)) is the senior procurement executive and the principal staff assistant and advisor to the Secretary of Defense (SECDEF) for MDAPs and takes precedence in DOD for all matters relating to the materiel acquisition system. The USD(A&T) serves as the Department Acquisition Executive (DAE) with responsibility for supervising the performance of the entire DOD acquisition system in accordance with the laws, Congressional guidance and direction and Executive Branch policies. The DAE serves as the chairman of the Defense Acquisition Board (DAB) and, in this capacity, recommends resource matters and acquisition management matters to the SECDEF.

(2) The Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD(C3I)) is the DAE for automated information systems (AIS). As such, the ASD(C3I) establishes policies and procedures unique to AISs and chairs the Major Automated Systems Review Council (MAISRC).

(3) Distinct from the DAEs' acquisition authority is budgetary authority. While the DAEs make recommendations on whether to proceed with acquisition programs, the Defense Resources Board (DRB), chaired by the Deputy Secretary of Defense (DEPSECDEF), makes budgetary recommendations on the same programs. Acquisition programs must operate within the parameters established by the DRB and the SECDEF through the PPBS.

(4) The Assistant Secretary of the Army (Research, Development, and Acquisition) (ASA (RDA)) is the Army Acquisition Executive (AAE) and is designated by the Secretary of the Army (SA) as the CAE and the senior procurement executive within DA. The Director of Information Systems for Command, Control, Communications, and Computers (DISC4) provides staff support to the AAE in managing the research, development and acquisition of AIS and information technologies (IT). The AAE

acts with the full authority of the SA and is responsible for administering acquisition programs according to DOD policies and guidelines, and exercises the powers and discharges the responsibilities of CAEs as set forth in DODD 5000.1. The AAE also appoints, supervises and evaluates PEOs and direct-reporting (to the AAE) PMs.

(5) PEOs and direct-reporting PMs serve as materiel developers (MATDEV). The PEOs and PMs administer a number of major and non-major programs as assigned by the AAE. They are responsible for accomplishing cost, schedule, and total system performance objectives. In addition, PEOs and PMs are responsible for assisting combat developers (CBTDEV) and training developers (TNGDEV) in developing operational requirements documents (ORD) by providing technical, availability, performance, anticipated materiel development cost, and development schedule information.

d. Close coordination among combat and materiel developers, supporting commands (for example, Army Materiel Command) and staff elements, and MACOMs and their subordinate commands enables operational and technical integration of new and improved equipment capabilities. Their effective integration is necessary to ensure detailed and sound planning and recommendations, and efficient execution of all aspects of the fielding process.

8-7. Force integration considerations

a. Force integration considerations begin before formal program initiation and continue throughout a system's life cycle. Execution requires continuing assessments of the impact of introducing equipment into the force at and beyond the time of fielding. These assessments address structuring, training, manning, sustaining, deploying, stationing, and funding considerations, and weigh the readiness impact for gaining organizations. Equipping the force must also assure that supporting rationale and processes are continually reviewed and updated.

b. Throughout the process, combat, training, materiel, and doctrine developers, with input from gaining organizations, ensure that decisions involve—

(1) Operational integration, characterized by the capability to function effectively in a combined arms environment with current and developmental materiel.

(2) Technical integration, characterized by the physical capability to interface and operate current and developmental systems to field combined arms, joint, or combined force capabilities.

(3) Integration of equipment capabilities with manpower and personnel as well as logistics supportability.

Section III: Materiel Requirements Definition

8-8. Mission needs

a. All acquisition programs are based on identified future operational materiel needs. Determination of these needs are a result of continuing assessments of current and projected capabilities in the context of military threat and national military policy. A mission need may address—

(1) A new operational capability.

(2) Improvement of an existing capability.

(3) A desire to exploit promising technologies.

b. Mission needs can be identified by Unified combatant commands, the military departments, OSD, or the Joint Staff. In theory, mission need identification should first exhaust all nonmateriel solutions such as, doctrine, training, or organizational changes. When a need is identified that could potentially result in the establishment of a new acquisition program, a mission needs statement (MNS) is prepared that is a nonsystem-specific statement of operational capability. The MNS can be prepared by any DOD component that has identified a specific mission area materiel requirement or need.

8-9. TRADOC role

TRADOC is the Army's war-fighting requirements "gatekeeper" and acts as the primary combat developer in the domains of doctrine, training, leader development, organizations, and materiel, focused on the soldier (DTLOMS). In the mid-to-far term, the requirements determination process provides the analytical basis to determine future Army operational capabilities (FOC) and materiel war-fighting requirements.

8-10. Requirements documentation

a. Planning, programming, and budgeting for materiel capabilities is initiated by the AMP. It identifies future requirements and provides the structure within which multiple competing elements can be analyzed, balanced, and integrated into the POM. The AMP reflects the constrained subset of systems and programs that the Army plans to resource and execute.

b. When the materiel requirement and manner of acquisition have been identified, the acquisition is designated as acquisition category (ACAT) I through IV. This category determines the level of review, and who will make the milestone decisions. The ACAT is determined by dollar criteria and visibility of the potential program. The four acquisition-categories, principal decision review forums, membership, and decision authority are summarized in Figure 8-2.

Program Category	*Program Management*	*Primary Criteria*	*Milestone Review Forum*	*Milestone Decision Authority*
		$FY 96 Constant		
ACAT I				
ACAT ID	PEO/PM	RDTE > $355M PROC > $2.135B	DAB	USA(A&T)
ACAT IC	PEO/PM	RDTE > $355M PROC > $2.135B	ASARC	AAE
ACAT IA				
ACAT IAM	PEO/PM	Single Year > $30M or Total Program > $120M or Total Life-Cycle Costs > $360M	DOD MAISRC	ASD(C31)
ACAT IAC	PEO/PM	Single Year > $30M or Total Program > $120M or Total Life-Cycle Costs > $360M	Army MAISRC	AAE/CIO
ACAT II				
ACAT II	PEO/MAT CMD CDR /PM	RDTE > $140M PROC > $645M	ASARC	AAE
ACAT IIA	PEO/MAT CMD CDR /PM	Single Year: $10-$30M or Total Program: $30-$120M or Total Life-Cycle Costs: $159-$360M	Army MAISRC	AAE/CIO
ACAT III				
ACAT III	PM	High Visibility; Special Interest	IPR	PEO/MAT CMD CDR
ACAT IIIA	PEO/PM	Single Year: $10-$30M or Total Program: $30-$120M or Total Life-Cycle Costs: $159-$360M	IPR	PEO/MAT CMD CDR
ACAT IV				
ACAT IV	System Manager, or Equivalent Programs (includes AIS)	All Other Acquisition	IPR	MAT CMD CDR

Figure 8-2. Acquisition Categories

c. These decision forums provide for diverse and comprehensive membership by decision makers and staff elements from the organizational levels charged with decisions on the program involved. They provide for participation by materiel and combat developers, OSD, and appropriate service representation.

d. Integrated priority lists (IPL) provide access to the planning, programming, and budgeting systems by the CINCs of unified combatant commands. The CINC IPL can be provided to the Joint Chiefs of Staff (JCS) or by the Army component commanders to the ARSTAF. The Army's requirements de-

termination process provides a mechanism to surface and support immediate requirements, rapidly emerging capabilities, and command or theater unique needs to be interjected into the programming and budgeting processes.

e. Materiel acquisition programs mature and are approved for further execution through milestones shown in Figure 8-1. Through this maturation the definition of requirements is expressed both in operational requirements and constraints delineated in the operational requirements document (ORD), and from more focused exit criteria approved to define the program's progression through each milestone decision review (MDR). Systems integrators (SI) and combat and materiel developers focus on operational and technical integration during requirements determination and documentation. They ensure that critical aspects of these parameters are the basis of approved exit criteria to allow for integration of the system into the force as it emerges from development and is tested and fielded. Significant elements of decision criteria for the force integration process include—

(1) *Operational capabilities.* The integrated, synergistic capabilities of the force.

(2) *Technical capabilities.* Within the program and across the projected force.

(3) *Programmatic risk.* Technical risks, time, and cost.

(4) *Impact on other functions.* This includes structure, manpower, personnel, training, doctrine and tactics, and organizational sustainability.

(5) *Operational priorities and relative affordability.*

8-11. Resource allocation

a. Considerations. Resources available for systems development, production, and fielding must be distributed to achieve a balance between current readiness and future operational needs. This requires that combat, materiel, training, and force developers—

(1) Understand and support priorities for future force capabilities.

(2) Understand emerging technology potentials and attendant risk.

(3) Articulate conceptual and doctrine-based requirements for future materiel system capabilities.

(4) Participate in decision processes that distribute technology base and other investment account resources.

(5) Provide comprehensive assessments and rationale that document the operational and technical basis for recommended investments.

b. Investment accounts. DOD and Army investment accounts are directed toward basic research, technology development, and technology insertion. This includes development and early demonstration of potential materiel applications. These investment accounts are research, development, test, and evaluation (RDTE) and procurement.

(1) *Technology base.* The technology base is encompassed within the 6.1 through 6.3 budget activities of Army RDTE appropriation 6:

(*a*) Budget activity 6.1, Basic Research includes scientific study and experimentation. It is directed toward increasing knowledge and understanding in those scientific fields that are related to national security needs. It provides fundamental knowledge for solution of identified military problems. It also provides part of the base for subsequent applied and advanced research developments in defense related technologies of new or improved military function capabilities.

(*b*) Budget Activity 6.2, Applied Research, includes efforts directed toward solving specific military problems. It includes fundamental applied research, sophisticated prototype development, study, programming, and planning efforts. It also considers studies and minor developmental efforts and development of technological processes that will be used to support the acquisition process. Technological processes are characterized as models, techniques, and simulations that are needed to optimize product development. These processes focus on developing criteria and evaluating the feasibility and practicality of proposed solutions and determining their parameters. Program control normally is maintained by general level of effort.

(*c*) Budget Activity 6.3, Advanced Research Development, includes all projects that are ready for demonstration where technical maturity has been achieved and technical risk to initiate full-scale development is low. In addition, nonmateriel brassboard prototypes may be evaluated for technical maturity using experimental laboratory or field tests. Advanced research development is characterized by line item projects. Program control is exercised on a project basis and addresses technological options and uncertainties in both system and nonsystem RDTE efforts.

(*d*) Advanced research development involving nonsystems is characterized by the development of generic components and subsystems, advanced technology transition demonstrations, and nonmateriel technological demonstrations, such as simulations.

(*e*) Decisions are made and carried out concerning technology base investments. They are reviewed to ensure that the following elements are

supportive of other technologies transitioning out of the technology base:

- Operational and technical integration has occurred with current and projected systems; this requires planning for the conduct of joint, combined, and coalition operations.
- Synchronization of development and fielding timelines to assure capabilities of fielded forces.
- Production within projected resource constraints.

(2) *Development, test and evaluation, and procurement.* Systems development capitalizes on proven technological capabilities to support stated requirements for new and improved materiel systems. This normally involves budget activities 6.4 —Demonstration and Validation, 6-5— Engineering and Manufacturing Development; and 6.7, Operational Systems Development.

(*a*) Systems development activities are highlighted by prototyping of systems, proving readiness for production, and optimizing manufacturing and related technologies. The conduct of developmental (technical) and operational testing demonstrates system readiness for fielding and operational employment.

(*b*) The production/fielding phase of the acquisition process encompasses affordable procurement of materiel systems, including total package fielding (TPF) requirements. It also includes completion of post-production testing and live fire testing using production materiel. The production/fielding phase concludes with the system's fielding based on Army requirements and priorities.

(*c*) Force Integrators and System Integrators monitor the progress of each of these activities during the production/fielding phase. They focus on continuing assessments of relative priorities and program affordability within the constraints of overall force capabilities. They also ensure that production articles meet performance, supportability, and operational suitability requirements of the force.

(*d*) Developmental and operational T&E activities are an integral part of the process of ensuring that planned equipment acquisitions meet required standards. Specific events of the testing cycle allow tailoring of the acquisition program to meet unique requirements and demands. The final process of testing and evaluation ensures that soldiers receive materiel that is safe, maintainable, and capable on the battlefield. Figure 8-3 compares key characteristics of each type of T&E.

Characteristics of Developmental and Operational Testing & Evaluation

Developmental T&E

- Technicians
- Laboratories
- Proving Grounds
- Developer's Perspective
- Technical Specifications
- Army Materiel Command (AMC)
  - ◊ Test and Evaluation Command (TECOM)—Developmental Tester

Operational T&E

- Troops
- Realistic Environment
- Tactical Operations
- User Views
- User Issues
- Operational Test and Evaluation Command (OPTEC)
  - ◊ Evaluation Analysis Center (EAC) - Developmental Evaluator
  - ◊ Test and Experimentation Command (TEXCOM) - Operational Tester
  - ◊ Operational Evaluation Command (OEC)—Operational Evaluator

Figure 8-3. Characteristics of Developmental and Operational Testing and Evaluation

Section IV: Manpower, Personnel, and Logistics Integration

8-12. Manpower and personnel integration

a. Manpower and personnel integration (MANPRINT) is the Army's human systems integration (HSI) program. It emphasizes front-end planning of soldier-materiel system design for optimum total system performance. It is part of the Army materiel systems acquisition and associated support requirements so that systems can be operated and maintained in the safest and most efficient manner within Army resource constraints. MANPRINT is focused on influencing materiel

systems design and associated support requirements so that systems can be operated and maintained in the most cost effective and safest manner within resource constraints. These considerations are incorporated into requirements and the acquisition process to determine the answers to the following question: Can this soldier with this training perform these tasks to these standards under these conditions?

b. MANPRINT increases Army war-fighting capabilities by enhancing operational effectiveness of the total system. This is achieved by the continuous integration of personnel capabilities, manpower, training, human factors engineering (HFE), system safety, health hazards and soldier survivability considerations throughout the system acquisition process. Each consideration is called a "domain". A brief explanation of each domain is as follows:

(1) *Personnel capabilities*. The cognitive and physical capabilities required to be able to train for, operate, maintain, and sustain materiel and information systems.

(2) *Manpower*. The number of military and civilian personnel required and potentially available to operate, maintain, sustain, and provide training for systems.

(3) *Training*. The instruction or education, and on-the-job or unit training required to provide personnel their essential job skills, knowledge, values and attitudes.

(4) *Human factors engineering.* The integration of human characteristics into system definition, design, development, and evaluation to optimize human-machine performance under operational conditions.

(5) *System safety (SS).* The design features and operating characteristics of a system that serve to minimize the potential for human or machine errors or failures that cause injurious accidents.

(6) *Health hazards (HH).* The design features and operating characteristics of a system that create significant risks of bodily injury or death; prominent sources of health hazards include loud noise, chemical and biological substances, extreme temperatures, and radiation energy.

(7) *Soldier survivability (SSv).* The characteristics of a system that can reduce fratricide, detectability, and probability of being attacked, as well as minimize system damage, soldier injury, and cognitive and physical fatigue.

8-13. Logistics integration

a. Integrated logistics support (ILS) planning begins before formal program initiation. It ensures the planning and evaluation of all necessary equipment support tasks and requirements to enhance materiel system and support system effectiveness. The lead time to plan and execute some ILS components can take longer than the development cycle for a new combat system. For the necessary support to be available when a system is fielded, ILS planning must be included from the very beginning, as an integral part of the system development process. ILS considerations are integrated into the system design effort throughout the acquisition management process.

b. The objective is to ensure that the developed systems are reliable, maintainable, transportable, and supportable. Concurrently, the required support resources must be developed, acquired, tested, evaluated, and deployed as an integral part of the materiel acquisition process.

c. The principal elements of ILS related to the overall system life-cycle are—

(1) Design influence.
(2) Maintenance planning.
(3) Manpower and personnel.
(4) Supply support.
(5) Support equipment, and test, measurement, and diagnostic equipment (TMDE).
(6) Training and training devices.
(7) Technical data.
(8) Computer resources support.
(9) Packaging, handling, and storage.
(10) Transportation and transportability.
(11) Facilities.
(12) Standardization and interoperability.

Section V: Major End Item Distribution

8-14. Distribution considerations

Distribution of new and displaced equipment is based on the Army's priorities for force readiness and the ability of units to receive materiel. Figure 8-4 illustrates the equipment distribution planning and execution process. There are no absolute criteria for determining the sequence and timing of equipment distribution throughout the force. This critical function can be understood by a discussion of authorizations, priorities, and distribution execution.

8-15. Distribution authorizations

a. Organizational requirements and authorizations form the basis for determining Army requirements for major end items of equipment. The AAO includes-

(1) Equipment authorizations for the Total Army that make up theIIQ.

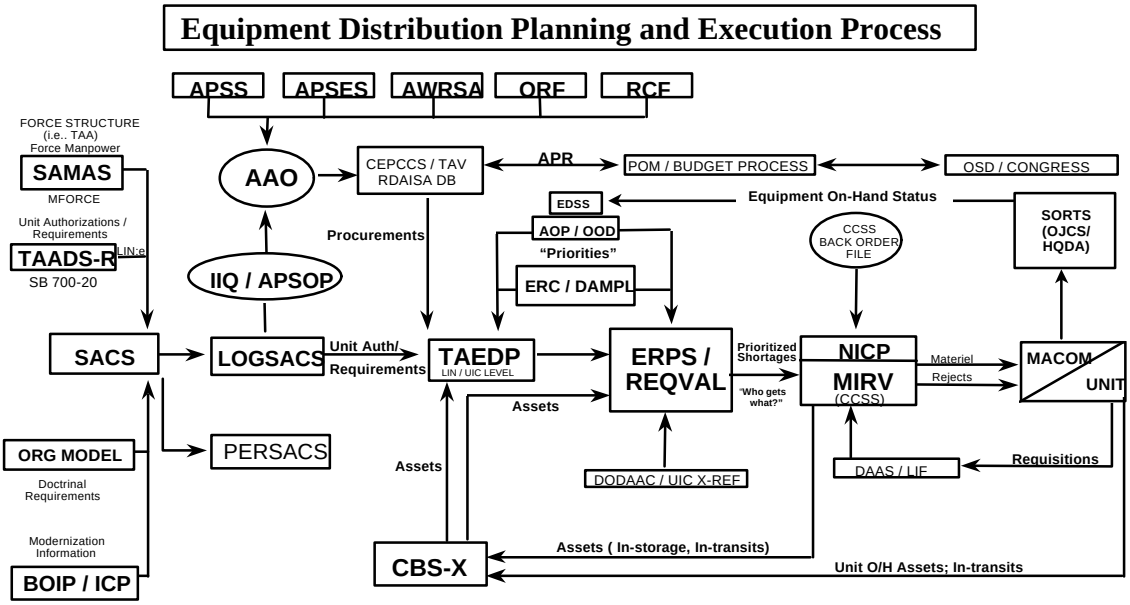
(2) APSS (Class V & VII).

(3) APSES.

(4) AWRSA.

(5) APSOP (Class V & VII).

(6) Maintenance float requirements expressed as either ORF orRCF.



AAO: Army Acquisition Objective
AOP: Army Order of Precedence
APR: Army Procurement Requirement
APSS: Prepositioned Stocks Sustainment
APSES: Army Prepositioned Stocks Equipment Sets
APSOP: Army Prepositioned Stocks Operational Project
AWRSA: Army War Reserve Stocks for Allies
BOIP: Basis of Issue Plan
CBS-X: Continuing Balance System-Expanded
CCSS: Commodity Command Standard System
CEPCCS: Centralized Equipment Procurement Conversion Capability System
DAAS: Defense Automatic Addressing System
DAMPL: Department of the Army Master Priority List
DODAAC: Department of Defense Activity Address Code
EDSS: Equipment Distribution Sequence System
ERC: Equipment Readiness Codes
ERPS: Equipment Release Priority System
ICP: Incremental Change Package
IIQ: Initial Issue Quantity
LIF: Logistics Intelligence File
LIN: Line Item Number
LOGSACS: Logistics Structure and Composition System
M FORCE: Master Force
MIRV: Major Item Requisition Validation
NICP: National Inventory Control Point
OOD: Out-of-DAMPL
ORF: Operational Readiness Float
PERSACS: Personnel Structure and Composition System
POM: Program Objective Memorandum
RCF: Repair Cycle Float
RDAISA DB: Research, Development, and Acquisition Information Systems Data Base
REQVAL: Requisition Validation System
SACS: Structure and Composition System
SAMAS: Structure and Manpower Allocation System
TAADS-R: The Army Authorization Document System (Redesign)
TAEDP: Total Army Equipment Distribution Program
TAV: Total Asset Visibility
UIC: Unit Identification Code

Figure 8-4. Equipment Distribution Planning and Execution Process

b. Organizational requirements for major items of equipment are documented and summarized in TAADS-R. The programmed force structure is documented in the MFORCE found in the Army's SAMAS. Overall projections of equipment requirements are projected in the LOGSACS. AAO requirements and subtotals for each element are then aligned with current Army priorities.

8-16. Distribution priorities

a. The Defense Priorities and Allocation System (DPAS) defines overall priorities for limited industrial base assets in times of emergency. It also provides priority performance on contracts and orders to distribute materials and facilities necessary for national defense under the Defense Production Act.

b. The determination of distribution of major equipment items in relative priority to conform with the Army's overall requirements for readiness, contingencies, and training is based on the DAMPL. It prioritizes organizations and non-unit claimants to meet the "first to fight, first to support is first resourced" concept. The Army order of precedence (AOP) provides departmental guidance for specific

priorities that diverge from specified DAMPL priorities. MACOMs may request emergency distribution to subordinate commands in out-of-DAMPL sequence (OOD) due to MACOM-specific requirements.

c. These prioritization mechanisms are focused on providing highest priority for new and improved materiel capabilities. This methodology does not encompass all possible exigencies or unique equipment requirements of certain organizations. Requirements to provide mission-essential equipment for training may demand deviation from the DAMPL. The Army equipping strategy provides policy guidelines for executing equipment distribution to Army elements by force package utilizing a "trickle-down" modernization methodology.

8-17. Distribution execution

a. The Army's authorizations for major items of equipment are documented in the TAEDP. TAEDP combines requirements and authorizations with existing assets as reflected in the Continuing Balance System-Expanded (CBS-X). This composite data provides input to the distribution of equipment against projected force structure as shown in Figure 8-5.

b. The Requisition Validation (REQVAL) system compares current authorizations with on-hand assets reflected in CBS-X. The Equipment Release Priority System (ERPS) prioritizes the shortages using priorities for equipment release and distribution (or redistribution). These processes are detailed in Figure 8-6.

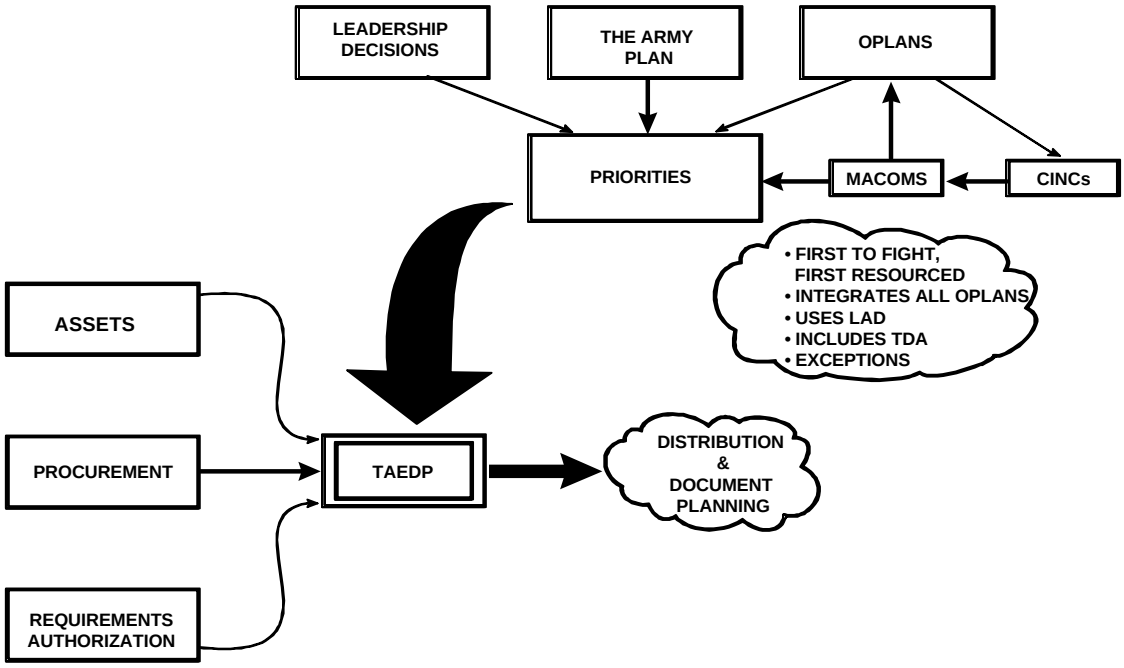


Figure 8-5. Distribution Priorities

Section VI: Fielding and Sustainment

8-18. Total package fielding

Successful fielding and initial sustainment of new and improved items of equipment require planning to realize each item's full capability within gaining units. TPF process is designed to achieve this capability.

a. TPF objective. The overall objective is to meet the first unit equipped (FUE)/initial operational capability (IOC) dates with an operationally suitable, reliable, maintainable, and economically obtainable system. The FUE is the date when the system and associated equipment is fielded (in operational quantities complete with logistical support, and training support) to the IOC unit and NET is accomplished. The IOC is the first attainment of war-fighting capability of MTOE and supporting elements to operate and support a fielded system. With certain exceptions, fielding of new and improved Army systems is accomplished within the context of TPF as the standard and preferred framework. Its intent is to reduce logistics burdens on the gaining MACOM and its subordinate organizations.

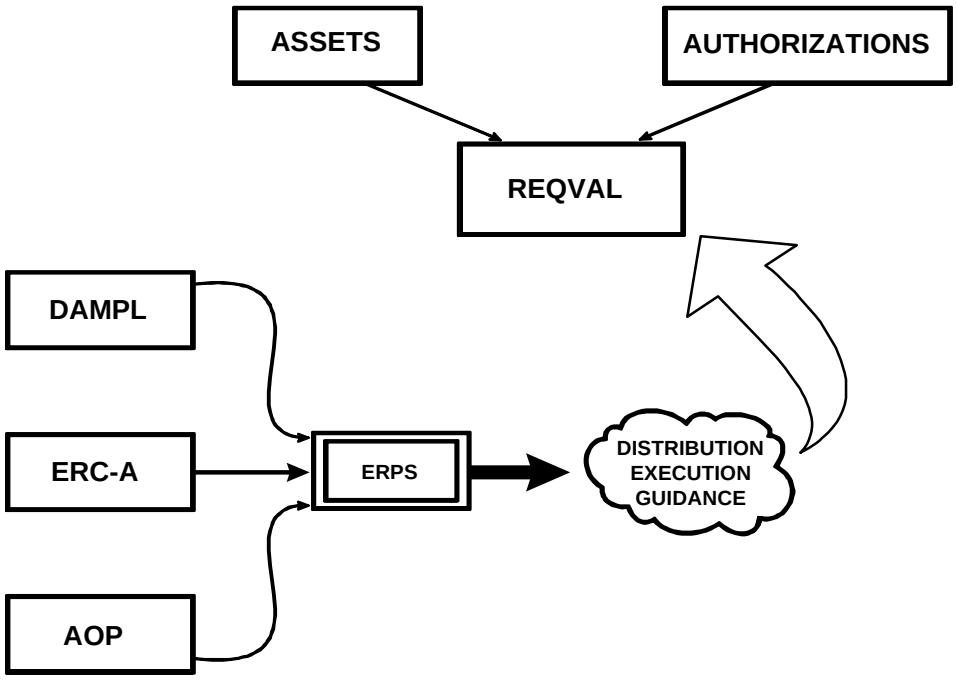


Figure 8-6. Distribution Execution

b. Considerations.

(1) Equipping the force requires integration of functional processes and products to enable development and fielding of individual items of equipment or major materiel systems. To integrate issues addressed in fielding new equipment, all involved agencies must—

(*a*) Synchronize and balance operational and technical capabilities at system, organization, and force levels.

(*b*) Consider the operational and technical impact of the following:

- System and force lethality.
- System, soldier, and force survivability.
- Force structure and technology within affordability, force sustainment, and operational constraints.

(2) Planning for and executing materiel fielding operations also recognizes that—

(*a*) Limited resource levels require fielding to be conducted in a cost-effective manner.

(*b*) Fielding, training, and support for new and improved operational capabilities must assure rapid assimilation of new equipment into the force.

(*c*) Major categories of materiel systems must be in continuous modernization (production, upgrade, or development).

(3) Most materiel fieldings will affect direct support organizations that sustain combat and combat support organizations. The support infrastructure modernization is inextricably tied to the operational capability of the supported organization. It requires intensive management due to low density of personnel and equipment authorizations. Failure to introduce and incorporate changes to combat service support organizations ultimately degrades sustainment and operational capability of the supported force.

c. Responsibilities. Several Army organizational elements have responsibilities for equipping the force. Materiel and combat developers and supporting contractors are the principal planning and execution agencies at the early stages of system evolution. Departmental agencies, MACOMs, and gaining organizations participate as involvement in a particular program matures.

(1) *Department of the Army.*

(*a*) The ARSTAF has overall responsibility for establishing policies and priorities. They also are directly involved in planning, programming, and budgeting for materiel research, development, and acquisition. Operational and technical inputs are provided by the combat and materiel developer, respectively. ASA(RDA) is an element of the Army secretariat and includes Army Program Executive Officer (PEO) organizations and their subordinate program, project, and product managers (PM). The

ASA (RDA)/PEO and the AMC have principal responsibility for technology development, system development, and production. This responsibility includes technical testing; cost estimation; and research, development, and acquisition resource management.

(*b*) The Office of the Deputy Chief of Staff, Operations and Plans (ODCSOPS) is responsible for development and articulation of program priorities. Additional responsibilities include integrated rationale and inputs that support technology, system development, equipment acquisition, and distribution. The ARSTAF and ASA(RDA) each have responsibilities for supporting databases and decision support mechanisms. Responsibility for equipment distribution and support planning belongs to the Office of the Deputy Chief of Staff, Logistics (ODCSLOG).

(2) *Army Materiel Command.*

(*a*) AMC performs assigned materiel and related functions for R&D, development test and evaluation (DT&E), acquisition and logistics support of materiel systems, and other materiel acquisition management functions required by DA.

(*b*) AMC is a principal MATDEV in the Army. AMC encompasses the remaining Army PMs and system managers, the Army Research Laboratory (ARL), subordinate R&D commands, and major subordinate "commodity" commands.

(3) *Training and Doctrine Command.*

(*a*) TRADOC is the Army's primary "user representative" in the materiel acquisition process. TRADOC performs assigned materiel and related functions for operations research and analysis, evaluation of products of the requirements determination process, operational and organizational planning, logistics support planning, and quantitative and performance requirement specifications for materiel systems, and other combat development functions required by DA.

(*b*) As the Army's principal CBTDEV, TRADOC guides, coordinates, and integrates the total combat development effort of the Army. Combat developments are a major component of force development and encompass the formulation of concepts, doctrine, organization, materiel objectives, requirements, and OT&E of products of the requirements determination process. TRADOC receives significant input from AMC, the Army's principal MATDEV.

(*c*) The TRADOC counterpart to the PM, the TRADOC System Manager (TSM), is a central figure in the RDA process and a key member of the MATDEV/CBTDEV team. The TSM is chartered by the CG, TRADOC to function as focal point for coordination of the CBTDEV/TNGDEV efforts in the development and acquisition of the system. The TSM is responsible to synchronize all DTLOMS domains that are impacted by the fielding of a materiel system. TSMs are appointed for selected major and non-major programs.

(4) *Major Army commands.*

(*a*) MACOMs are responsible for logistics functions for Army organizations. To ensure all aspects of fielding new and improved equipment are considered, MACOM force integration staffs assess structuring, manning, training, stationing, deploying, and funding of resources that are programmed for inclusion in MACOM POM submissions. Concurrently, MACOMs and subordinate headquarters plan, coordinate, and supervise adherence to detailed timelines to meet fielding milestones.

(*b*) Army components of unified combatant commands also provide input to operational requirements through generation of requirements in a CINC IPL or through routine staffing of ORDs. MACOMs recommend priority for equipment distribution to subordinate commands. This internal distribution may be out-of-DAMPL sequence.

(*c*) Within MACOMs, activities and organizations plan for equipment distribution by programming and budgeting resources to support equipment fielding at specific sites. This ensures availability of the necessary personnel, facilities, support capabilities, and materials, when required.

(5) *Reserve Components.* Reserve Component modernization reflects the roles of the Army Reserve and National Guard in the Army mission. Organizations in the reserve forces must be structured, equipped, and trained to perform combat functions and be capable of sustainment by the Active Component support infrastructure. These requirements may necessitate dedicated procurement of major materiel systems for Reserve Component units. The dedicated procurement program (DPP) improves readiness of the total force by increasing equipment-on-hand EOH) status of the Reserve forces.

(6) *Other commands.* Limited combat and materiel development responsibilities are also vested in the U.S. Army Special Operations Command (USASOC), Corps of Engineers (COE), the U.S. Army Medical Command (USAMEDCOM), and the U.S. Army Space and Missile Defense Command (USASMDC). The U.S. Army Intelligence and Security Command (USAINSCOM) also retains materiel development responsibilities.

d. TPF Planning and Execution.

(1) As the program's development cycle progresses through the engineering and manufacturing development phase, plans for fielding transition into

detailed planning, coordination, and initial execution. This sequential planning is designed to ensure—

(*a*) Sufficient planning and resourcing capability by both the fielding commodity command and the gaining command.

(*b*) Full understanding of fielding support requirements including structure, personnel, facilities, and training.

(*c*) Successful transition of fully operational and supportable systems to operational units.

(2) Specific TPF activities and responsibilities on the part of fielding and gaining commands are based on categories of TPF (I through III) and levels of materiel system complexity (1 through 4) in category I. In all categories of TPF, the materiel fielder—

(*a*) Programs funds for initial issue material.

(*b*) Requisitions initial issue material.

(*c*) Provides the gaining organizational customer documentation.

(3) TPF places the responsibility on the AMC commodity command to field equipment in accordance with the BOIP for materiel system fielding (category 1), the authorization document for activations (category 2), and the difference between the current and new authorization document for reorganizations or conversions (category 3). The commodity command must achieve at least C-3 for equipment on hand at the time of hand-off to the gaining organization. Equipment to be provided to the gaining unit is specified in the materiel requirements list (MRL) based on negotiated agreement and should consider implications of ERC "B" and "C" LINs of equipment.

(4) Both the materiel developer, fielding agency, and the gaining command have specific responsibilities and activities to fulfill within the overall TPF. The process encompasses hand-off of the primary equipment system and its support package, to include—

(*a*) Primary system with all component major items and associated basic issue items (BII).

(*b*) ASIOE and the associated BII.

(*c*) STTE.

(*d*) TMDE.

(*e*) Starter set of technical publications, including technical manuals.

(*f*) Authorized initial issue spare/repair parts, including essential repair parts stockage list when approved by DA.

(*g*) Appropriate training support package.

e. TPF fielding documentation. Planning and executing materiel fielding is a process of determining organizational requirements for introduction, incorporation, and sustainment of materiel and of documenting specific responsibilities and procedures. Key information sources for the development of fielding plans include the following:

(1) T*he Army Modernization Reference Data (AMRD).* It contains resource-oriented data for selected new, improved, and displaced equipment systems to provide resource impacts of systems.

(2) *Materiel fielding memorandum of notification (MON).* This document begins the formal materiel fielding process. It is provided by the materiel developer to the gaining MACOM at least 240 days before award of a developmental system production contract. The MON provides system description, fielding milestones, and the draft materiel fielding plan (if required).

(3) *Materiel fielding plan.* The MFP is prepared by the materiel developer for each gaining MACOM or as an annex tailored to each gaining MACOM. Annexes include the approved mission support plan and materiel fielding agreement. The MFP includes the logistic support concept, system description, gaining command and fielding command responsibilities, support transition plan (if applicable), and detailed resource impacts on the gaining command. Detailed milestones will be specified.

(4) *Mission Support Plan (MSP).* The MSP is prepared by the gaining command and contains maintenance and supply support structure for the system being fielded by specific identification of using and supporting units.

(5) *Materiel Fielding Agreement (MFA).* The MFA is jointly prepared by the fielding agency and gaining command to document the mutual agreement of plans, policies, responsibilities, procedures, and schedules governing fielding of the equipment item to a particular MACOM.

(6) *Materiel requirements list.* The MRL is prepared by the fielding command and specifies all items required to field and initially support the materiel system.

8-19. Displaced equipment disposition

a. Transfer of displaced items of equipment is separate from, but related to, the process for fielding new or improved items. New materiel fielding activities require transfer of displaced items to other organizations, theater stocks, or the depot system for rebuild or modification. Detailed planning and execution for displaced equipment is required to ensure training, assimilation, and early operational capability.

b. Transfer of materiel between organizations requires the following:

(1) A memorandum of agreement (MOA), which provides planning by and coordination among MACOMs for equipment transfers.

(2) A Materiel Transfer Plan (MTP), which provides for actions and responsibilities of the involved MACOMs, as well as supporting commands. A MTP is required when the displaced system has not been used or supported before by the gaining MACOM or when the system will be transferred to the Army wholesale system for refurbishment with a subsequent fielding.

(3) A Displaced Equipment Training Plan (DETP), which provides for the conduct of training for operators and maintenance and support personnel of displaced equipment for which a MTP is required.

Section VII: Summary

Equipping is an integral part of force modernization. It is technical, operational, and organizational in nature, and resource intensive. The integration challenge is complicated by missions, priorities, and interests of combatant commands, departmental decision makers and staffs, materiel development activities, and TRADOC proponents. These diverse interests and priorities are also affected by political, business, and industrial base demands. The processes, outputs, decision mechanisms, and organizational involvement that support equipping the force are not discrete activities accomplished in isolation.

Chapter 9
Training the Force

Section I:
Introduction

9-1. Training and force integration

Training and leader development are tools force integrators use in incorporating and sustaining new capabilities in organizations based on changes in concepts, doctrine, organizational structure, and materiel systems. This chapter defines the role of training in accomplishing the force integration mission.

9-2. Accomplishing operational missions

The Army's primary function is to achieve and sustain the capability to win America's wars. It must therefore be structured, equipped, manned, and trained to achieve the required favorable outcome. To protect national interests, it must be capable of responding to any level of conflict by projecting and sustaining forces over extended distances and accomplishing a variety of operational missions.

9-3. Competent, confident leaders

Developing competent and confident leaders is a key element of Army training. Commanders and leaders must be educated to understand the nature of organizational change to execute planned and programmed force integration actions. They must be able to assimilate change effectively and efficiently to maintain combat-ready units.

Section II:
Combined Arms Training Strategy

9-4. Training components

The Combined Arms Training Strategy (CATS) is the Army's overarching approach guiding the training of the current and future force. It describes how the Army will train the total force to standard in three major components: institutional training, unit training, and self-development training. These components are mutually supportive and incorporate the Army's standards for training. CATS enables the Army to create subordinate training strategies for institutions and units and to quantify and justify required training resources (Figure 9-1).

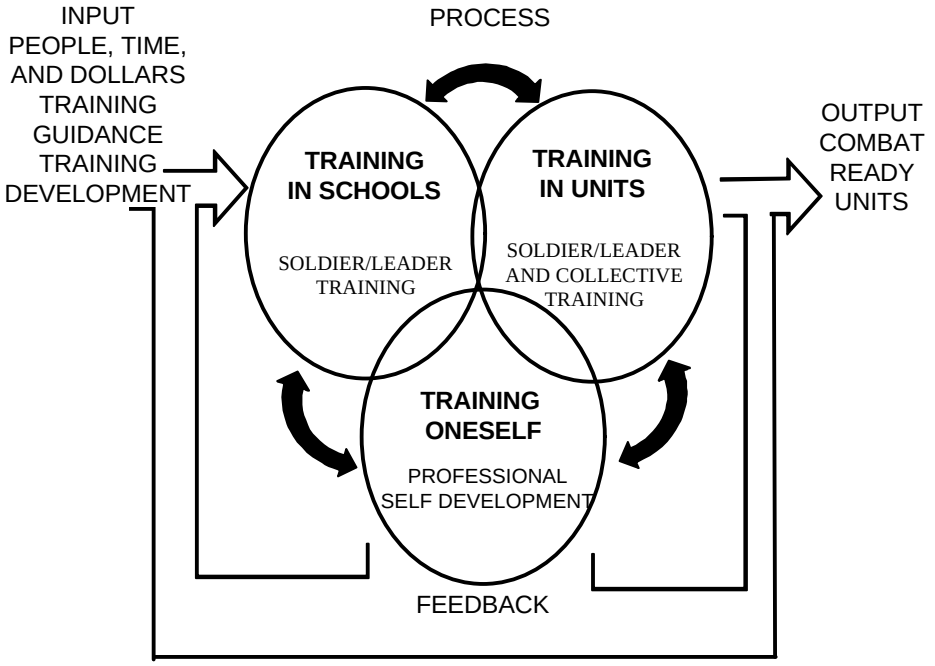


Figure 9-1. Army Training System

9-5. Principles of individual and unit training

To achieve the Total Army training goal, leaders at all echelons must understand the principles of training. Individuals and units must—

a. Train with leaders as the primary trainers. Leaders are responsible for planning and conducting training and evaluating individual soldiers and unit performance. Their personal involvement in training is essential to battlefield success.

b. Train as they fight. Units must train as they are structured, equipped, manned, and sustained for combat. Organizations are designed and tasked to perform doctrinal missions at maximum operational capability.

c. Train as combined arms and as part of joint teams. Cross-attachment of units is required to exploit operational capability. They must be able to form effective company teams and task forces and integrate combat support and combat service support units at the appropriate force level.

d. Conduct multiechelon training. Individual training, leader training, and unit training must be planned and conducted concurrently at every opportunity.

e. Use performance-oriented training. Units become proficient in the performance of mission-essential tasks by training to standard on tasks with coaching by leaders.

f. Train to sustain proficiency. The cornerstone of the Army Training and Evaluation Program (ARTEP) is sustaining proficiency (train-evaluate-train). Evaluation identifies training strengths and weaknesses. The mission training plan sequentially outlines training components and allows selection of tasks and groups of tasks to facilitate this process.

g. Train to maintain. Operators and organization and direct support maintenance personnel must train to sustain equipment and organizations at their designed level of capability.

h. Train to challenge. Tough and realistic training builds competence and confidence by developing and honing skills. It inspires excellence by fostering initiative, enthusiasm, and eagerness to learn.

i. Use published Army doctrine. Doctrinal publications establish the basis for sustainment, training, and evaluation.

Section III: Training Development

9-6. Development of effective training

Achieving the Total Army training goal depends on the development of effective training. In addition to training mission essential tasks, the ability to incorporate and sustain organizational capabilities depends on the quality of modernization and sustainment training (ST). The TNGDEV process begins with the systems approach to training (SAT) and culminates with the training requirements analysis system (TRAS).

9-7. Systems approach to training

SAT disciplines thinking on what to train, how to train, and how to evaluate training. It ensures that critical performance requirements establish the content of training. SAT consists of five interrelated processes:

a. Evaluation. Evaluations determine whether students can perform tasks to training standards. They also determine the effectiveness of graduates and exported training materials in meeting the needs of units.

b. Analysis. Analysis is a systematic process of identifying specific training needs from performance requirements by assessing unit missions, mission-critical collective tasks, leadership tasks, and critical individual tasks.

c. Design. Design involves the sequencing of training events to satisfy learning objectives. Learning objectives should meet the established criteria, as measured by performance-oriented tests.

d. Development. This is the production of resident and nonresident training programs and support materials that ensures the attainment of training objectives.

e. Implementation. This is the ability to train the trainers and conduct institutional and unit training.

9-8. Training requirements analysis system

TRAS facilitates the timely development and implementation of training by documenting the evaluation, analysis, and design of requirements in SAT. TRAS addresses both individual training and unit training, but emphasizes institutional training. TRAS integrates the TNGDEV and implementation process with external resource acquisition systems for personnel, facilities, and training devices. The TRAS process is supported by three documents:

a. Individual training plan (ITP). The ITP is a long-range planning document that outlines the resident and nonresident training strategy for an occupational specialty or separate training program, while ensuring that the SAT process is integrated with the sources of training needs, the PPBES, evolving training initiatives, and related resource acquisition systems.

b. Course administrative data (CAD). The CAD provides critical planning information about a resident course that enables the recruiting, quota management, and personnel systems to take the actions needed to have students and instructors on-station in sufficient time to meet Army requirements.

c. Program of instruction (POI). The POI is a requirements document that provides a general de-

scription of course content, duration of instruction, and types of instruction. It also lists resources required to conduct peacetime and mobilization training and critical tasks and supporting skills and knowledge taught, including distributive training phases of the course.

Section IV: Army Modernization Training

9-9. System training plan

AMT is designed to transfer knowledge about new doctrine, organizations, and equipment from the developer to the user.

a. The system training plan (STRAP) is the master training plan for new or improved materiel systems. It is developed by the TRADOC proponent for a materiel system. The STRAP—

(1) Documents the results of training analyses. It determines who requires training, what tasks need training, and when, where, and how proponents will conduct training.

(2) Starts the planning process for all necessary courses and course revisions, training products, and training support required for the new system.

(3) Sets milestones to ensure timely development of training and training support to permit testing and fielding of total systems.

(4) Communicates training and resource requirements within and among TRADOC schools, materiel developers, MACOMs, and HQDA.

(5) Establishes the basis for assessment of training subsystem progress.

b. The initial STRAP is required not later than 90 days prior to milestone 1 (MS 1). Revised STRAPs are due 30 days before management decision reviews.

9-10. Modernization training approaches

The knowledge necessary to modernize effectively is transferred through a variety of training approaches, either singly or in combination, to respond to the specific demands of the modernization under consideration:

a. New equipment training.

(1) *Purpose.* NET is the initial transfer of knowledge from the materiel developer to the trainer, user, and supporter to achieve operational capability in the shortest possible time through the identification of personnel, training, and training aids and devices. The strategy and duration of NET depends on the state of the institutional training system and its ability to provide trained soldiers. NET—

(*a*) Focuses on company-size or smaller units.

(*b*) Determines specific requirements for training on new or improved equipment.

(*c*) Integrates training for staff planners, testers, trainers, users, and supporters.

(2) *NET planning.* New equipment training plans (NETP) are prepared, reviewed, distributed, and stored in the Army modernization training automation system. It is a fully integrated, automated system with a capability for interactive development, updating, staffing, and distribution of NETPs.

(3) *NET focus and strategies.* NET planning must be flexible, considering the unique challenge of each new and improved item of equipment. Several training strategies are available for consideration:

(*a*) *Organizational training.* Following advanced individual training, personnel required to activate an organization can be brought together for unit training at one location. Training on the equipment is integrated into organizational training to provide a capability for training in the CONUS, followed by overseas deployments. This retains flexibility to support unit activation for CONUS only.

(*b*) *Total unit training.* Some materiel fieldings can take advantage of an existing organizational structure, cohesion, and chain of command to train all assigned operators and maintenance personnel of the gaining unit.

(*c*) *Institutional training.* The ideal training strategy occurs when the institutional training base is established and is producing sufficient graduates to support equipment fielding. It requires trained personnel to be distributed to the gaining unit. This strategy precludes the need for a NET team.

(*d*) *Cadre training.* Selected personnel from the gaining organization are trained to conduct training for other unit personnel (train-the-trainer). This training may be conducted at the materiel developer's location, the institutional training location, a contractor facility, or an installation receiving the equipment.

(*e*) *Instructor and key personnel training.* Some systems are operated and maintained by a selected number of key personnel. In these instances, it is more economical and effective to train all individuals who operate or maintain the equipment. Training and cost effectiveness will dictate the number of locations where training will be conducted.

(*f*) *Exportable training.* Some materiel fieldings require only exportable training material because of the simplicity of the equipment or its similarity to current equipment. The training developers will use material procured by the materiel developer when available.

b. Displaced equipment training. Displaced equipment, while not new to the Army, is often viewed as new equipment by the receiving unit and

can generate a training requirement. Displaced equipment training (DET) must be planned and executed as carefully as new equipment training; however, an established knowledge base may exist in the units receiving the equipment. DET—

(1) Integrates trained personnel assigned to the unit.

(2) Utilizes available training within TRADOC, ARNG, and U.S. Army Reserve Force schools.

(3) Employs supervised on-the-job training using exportable training packages.

c. Doctrine and Tactics Training. DTT provides commanders, leaders, planners, and operators the knowledge to employ and support new organizational capabilities. DTT is based on changes to current doctrine and tactics and considers the uses and functions of a new system or organization. It must be transmitted to user personnel so they can fully exploit the new capabilities and improve their combat effectiveness.

d. New organization training.

(1) The training of individuals on new or modified doctrine and tactics is encompassed by DTT; however, a void in organization training often occurs when changes significantly alter the capabilities, structure, and mission of a unit. A new organization must be trained to perform its new or modified doctrinal mission. NOT—

(*a*) Focuses on battalion-size units.

(*b*) Does not supersede requirements for NET, DET or DTT.

(*c*) Trains units to perform their new or altered mission based on changes required by new equipment, doctrine, or tactics.

(*d*) Requires the determination of needs for training at the proponent school based on the impact of the change in the unit's mission and readiness.

(*e*) May be integrated, as an event, into unit training.

(2) NOT planning includes the employment and support of the new organization. Although NOT planning considerations are similar to DTT, they focus on the battalion mission. Training must be transmitted to user personnel so they can fully exploit the new unit capabilities and improve combat effectiveness.

(3) NOT is designed to ensure that a modernized unit can perform its assigned mission in light of significant changes. It meets a training requirement at the organization level that is not met by NET/DET and DTT.

e. Sustainment Training.

(1) The level of training and capability achieved during AMT cannot be maintained without ST. Organizational capabilities must be sustained through a combination of institutional and individual and collective training at unit level (Figure 9-2).

(2) Effective sustainment of capabilities depends on the continuing efforts of unit commanders and the institutional training system to support commanders with training and doctrinal materials and trained individual replacements.

(3) Planning and execution of ST is an integral part of an organization's peacetime mission. Commanders at all echelons must make use of the available assets (human, physical, financial, and time) to support ST. Commanders assess the ability of individuals or units to perform assigned missions after training on new or displaced equipment or systems fielding. Results of ARTEP and battle command training program (BCTP) evaluations are used in the development of the unit's ST plan.

9-11. Modernization training responsibilities

Army modernization training responsibilities are as shown in Figure 9-3. Training requirements, schedules, and resources required to train units are documented by the AMT proponent. This ensures that resources programmed in support of AMT are synchronized with developmental milestones. They are coordinated with combat and training developers to define strategies. These plans are developed as materiel development, operations, maintenance, and fielding concepts evolve.

9-12. Training sequence

a. Successful modernization training efforts depend on sequencing events to ensure that new capabilities are at their maximum level as modernization training ends and ST resumes. Personnel identified to attend AMT must be selected based upon retainability in the organization. Regardless of the specific strategy to transfer knowledge to the operator, maintenance personnel, or trainer, organizations must be at 100 percent or more of authorized strength for the MOS and additional skill identifiers affected. This level of manning must be sustained through the transition period or beyond to lessen the impact of the departure of trained soldiers.

b. Training courses for leaders, operators, and maintenance personnel should be scheduled to ensure that soldiers and leaders are trained in adequate numbers to support equipment hand-off. Training should be conducted in conjunction with, or completed prior to hand-off of new equipment. If the period between completion of training and hand-off is too long, the ability of the organization to incorporate and sustain the capability will decrease as knowledge and skills decay and trained soldiers depart units.

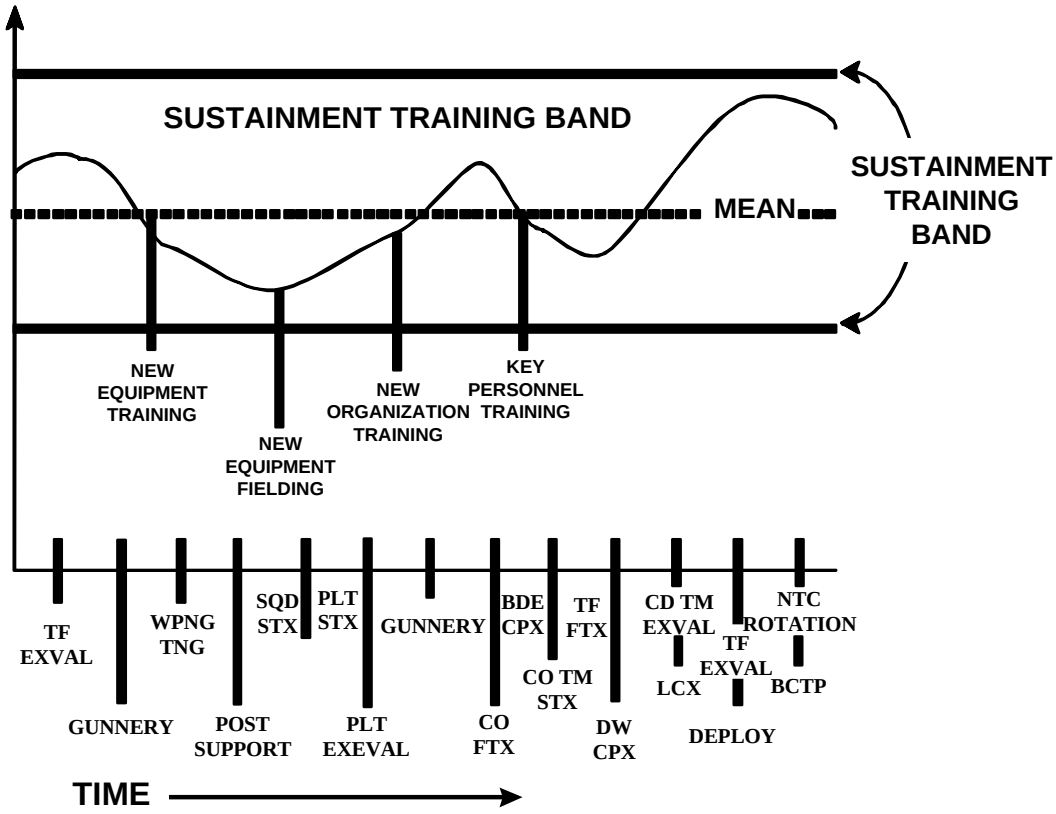


Figure 9-2. The Band of Excellence

ARMY MODERNIZATION TRAINING	PROPONENT		
	ACTIVE COMPONENT	RESERVE COMPONENT	
NET	AMC	AMC	
DET	TRADOC[1]	FORSCOM USARPAC USAREUR	NGB
DTT	TRADOC	TRADOC	
NOT	TRADOC	USARC	NGB
ST	MACOM[2]	USARC[2]	NGB[2]

Notes:
1. The Surgeon General (TSG) for medical items
2. In coordination with TRADOC

Figure 9-3. Army Modernization Training Responsibilities

9-13. Training plan development

Modernization training plans for staff planners, testers, trainers, supporters, and users must address—

a. Similarity of new doctrine, organizational structure, or materiel to existing doctrine, structure or equipment.

b. Current ability of the training base to provide trained replacements.

c. Technical complexity of the equipment.

d. Impact on training by interim contractor maintenance support and warranty restraints on systems.

e. Fielding rate by item or organization.

f. Effect of materiel fielding on unit readiness.

g. Overall modernization training strategy.

h. Equipment density (number of systems per organization and number of organizations).

i. Available training devices, equipment, ranges, facilities, and doctrinal and training materials.

j. Facilities required for training and equipment hand-off.

k. Capabilities and dispersion of reserve component units.

9-14. Training evaluations

Evaluation is the capstone process of modernization training. An organization must be evaluated on its ability to execute doctrine and exploit operational capabilities gained through new structure or new materiel systems. Organizations and their command and control and support structures must be stressed in a realistic assessment of design capability. This evaluation process validates the functional systems' success or failure in producing a combat-ready unit. The ARTEP evaluation or BCTP rotation for an organization terminates the modernization transition and provides the point of departure for ST.

9-15. Reserve Component modernization training

a. The ability of Reserve Component units to accomplish AMT is also limited by available training days and may require that NET, DET, DTT, or NOT be extended over two or more annual training periods. The authority to extend AMT must be approved by HQDA.

b. Selected Reserve Component units will receive new or improved equipment early in the distribution schedule. This fielding may be concurrent with equipment distribution to Active Army units. Detailed NET planning is essential to ensure that the unique challenges inherent in modernizing reserve component units are met.

c. Reserve Component units will often have significant mission changes upon receipt of new or displaced equipment that completely alters the structure of that unit. This often occurs during mobilization when fielding of new or displaced equipment for Reserve Components is accelerated.

9-16. Mobilization and wartime requirements

During mobilization and in wartime environments, the need for AMT becomes more critical. Accelerated requirements during mobilization often necessitate a unit to receive new equipment or change its structure during mobilization, deployment, or upon entry into theater. This challenges unit commanders to increase capability on an accelerated schedule. The combat effectiveness of a unit greatly depends on how well this training is integrated into its preparations for combat.

Section V: Summary

Force modernization introduces, incorporates, and sustains new doctrinal, structural, and materiel capability into organizations. Modernization training ensures that the capability is, in fact, incorporated. Sustainment training is the key to maintaining excellence.

Chapter 10
Sustaining the Force

Section I:
Introduction

10-1. Organizational sustainment considerations

The Army sustains organizations through the acquisition of personnel, materiel, and facilities. The arrival of additional people and materiel through the force integration process creates changes to the organizational paradigm. Changes to the organization and its support structure must sustain a designated level of capability. This level must be maintained through replacement, repair, or rotation of its existing assets.

10-2. Effects on associated units

The sustainment of organizations affects the supported and supporting units. Deviations at installations from the doctrinal supported/supporting unit relationships must be addressed in detail during deployment and operational planning. In addition, as maneuver units modernize, their supporting units (e.g., direct support maintenance teams) must also change.

10-3. Balancing requirements and resources

The determination of requirements and the allocation of resources identifies the current, budget, and program forces that must be sustained. Integration of requirements and authorizations in the SACS provides for sustainment of organizations with personnel and materiel.

10-4. Support of fielded systems

The acquisition of materiel systems is not simply designing, developing, buying, and shipping the systems to the user organizations. It also encompasses supporting the systems after fielding. Operational capabilities are maintained by providing repair parts, diagnosing failures, and developing necessary modifications through the life cycle of the system.

Section II:
Logistics Functions and Levels of Support

10-5. Logistics tasks

The Army's logistics tasks originate with its statutory functions to organize, equip, and train Army forces for the conduct of prompt and sustained combat operations on land. They are further refined by the DPG. Within this broad guidance, the services develop their own programs. The Army's logistics tasks are to—

a. Sustain land combat operations.

b. Establish reserves of equipment and supplies and provide for expansion of the force.

c. Formulate logistics doctrine and support procedures.

d. Develop and supply, equip, and maintain bases and other installations.

e. Develop logistics concepts, policies, programs, plans, and systems.

10-6. Logistics functions

The Army logistics system supports the movement and sustainment of the force through the following functional elements of logistics:

a. Supply. The function of acquisition, distribution (to include wholesale stocks), maintenance (while in storage), and salvage of materiel.

b. Maintenance. The function of maintaining and sustaining materiel in an operational status, restoring it to a serviceable condition, or updating or upgrading its functional utility through modification.

c. Transportation. Those services relating to the movement of personnel and equipment to meet commitments and mission requirements.

d. Services. Those support functions that provide food service, water support, laundry, fumigation and bath, property disposal, and mortuary affairs.

e. Facilities. Consisting of real property programs and real property maintenance activities pertaining to the operation of utilities, maintenance of real property, minor construction, and other engineering support.

10-7. Logistics levels of support

Levels of logistics are determined by the organizational level at which the support is required. There are two levels of logistics:

a. Wholesale. This level includes the national inventory control points (NICP), national maintenance points (NMP), depots, arsenals, plants and factories and special activities under DA contract. The work is generally performed in CONUS.

b. Retail. This level includes support at installations and in the theater of operations. It consists of three categories:

(1) *General support.* Includes both MTOE units and TDA activities that perform GS-level logistics functions. These functions are normally performed in support of the theater-level logistics system.

(2) *Direct support.* This includes both MTOE units and TDA activities that provide logistics support directly to user units and activities (and in MTOE units that provide backup direct support).

(3) *Unit or organizational:* This includes both MTOE and TDA units in the field which perform unit and operator maintenance on organic equipment, and unit supply functions.

Section III: Logistic Planning

10-8. Support considerations

Logistics planning focuses on the transition from peacetime to wartime. The adequacy of logistics support considers:

a. Sustainability requirements of supported forces.

b. Strategic and theater lift availability.

c. Availability and adequacy of prepositioned stocks.

d. Logistic force shortfalls.

e. Warning time.

10-9. Planning responsibilities

a. Department of the Army (DA). A comprehensive logistics analysis of OPLANs for various theaters is conducted to identify, develop, and recommend logistics concepts, policy, programs, plans, and systems. It also includes assessing logistics readiness and sustaining capabilities. This evaluation is performed to assess logistics supportability, adequacy of logistics force structure, and enhancement of logistics planning efforts. OPLAN logistic analyses focus on three primary aspects:

(1) Logistics force structure and deployment.

(2) Logistics planning guidance.

(3) Logistics support capabilities and constraints.

b. U.S. Army Materiel Command. The AMC is the wholesale logistics command responsible for the materiel functions of research, development, acquisition, and sustainment of a trained, ready Army. The mission of AMC and its subordinate commodity commands falls within three areas: the acquisition of materiel, supporting the readiness of that materiel while in user hands, and eventual disposal of the materiel.

10-10. Sustainment planning

a. Logistics sustainability projects the future availability and serviceability of equipment. It examines requirements versus availability of repair parts and other supplies, issue/turnaround times, storage and transportation, and related facilities.

b. Integrated Logistic Support, the program defined by AR 700-127, monitors and captures support requirements for new and displaced equipment. This data includes such information as maintenance frequency, transportation and storage requirements, numbers and special skills of maintenance personnel, repair parts supply, and facilities requirements. All of these elements can contribute to effective sustainment planning.

Section IV: Maintenance Function

10-11. Categories of maintenance

a. Materiel maintenance includes all actions taken to keep materiel in a serviceable condition, restore it to serviceability, or upgrade its utility through modification. As a general policy, maintenance is performed where equipment is operating or has failed.

b. Maintenance management in the Army is vertically oriented either on commodity groups or weapon systems. Within commodity groups, the management effort is predicated upon cost and item essentiality. Vertical maintenance management provides a direct line from HQDA to the ultimate user through the commodity management chain. Wholesale support responsibility is centralized at AMC. Vertical management techniques are used to obtain cost-effective operations and responsive improvements and rely on standardization of management systems, improvement of asset reporting, and control. This provides better asset knowledge and visibility, streamlines the Army's logistics support structure, and conserves resources.

10-12. Army maintenance (less aviation)

The maintenance framework for non-aviation units is made up of four categories:

a. Unit.

(1) Unit maintenance is performed by the user and is characterized by quick turnarounds based on repair by replacement and minor repair. The cornerstone of unit maintenance is preventive maintenance checks and services.

(2) To improve forward maintenance to the user, there is greater use of built-in-test (BIT) or built-in-test-equipment (BITE), modularity, common tools and test equipment, and discard of components and selected small end items.

b. Direct support. DS maintenance is performed by combat service support units assigned to divisions and corps. It is characterized by high mobility, with a forward orientation, and repair by replacement. Divisional maintenance units support maneuver elements while non-divisional units provide area support and reinforcing support to the division.

Where possible, DS units are organized on a modular team basis to support specific systems and their auxiliary equipment (such as tank system support teams, engineer system support teams).

c. General support. GS maintenance is characterized by semi-fixed facilities, with a deployable sustaining maintenance capability at theater level. Its basic purpose is to support the theater supply system through repair of components. GS maintenance is job or production line oriented, as appropriate, and is performed by modular units composed of commodity-oriented platoons. It may also work as a theater special repair activity.

d. Depot. Depot maintenance supports the wholesale supply system. It is production-line oriented and is performed by selected commodity-oriented organizations, special repair activities, AMC depots, and contractor personnel.

10-13. Aviation maintenance

Aviation maintenance is performed in three categories:

a. Aviation unit maintenance (AVUM). AVUM is a combination of unit and limited DS maintenance.

b. Aviation intermediate maintenance (AVIM). AVIM is a combination of the remaining DS and limited GS maintenance capabilities. In heavy divisions, the AVIM company is organic to the Aviation Support Battalion of the Division Support Command (DISCOM). The Airmobile Division DISCOM has an organic AVIM battalion. The AVIM companies of the Airborne and Light Infantry Divisions are organic to the Main Support Battalions of their respective DISCOMs.

c. Depot. Depot maintenance includes some maintenance repairs previously performed at GS as well as the traditional missions of rebuild and overhaul.

Section V: Transportation Function

10-14. Transportation management

a. Transportation is the movement of personnel and materiel to meet Army requirements and commitments. It can be considered the connecting link among the logistics functions, enabling the system to operate. The transportation management program focuses on maintaining a wartime lift capability in a peacetime environment. This helps ensure strategic mobility and a continuous movement of supplies to deployed forces. To develop and maintain this capability, the most responsive transportation systems are incorporated into the transportation program. Containerization, intermoalism, electronic data interchange (EDI) systems, and the air lines of communications (ALOC) system are used to improve transportation services during peace and war.

b. Strategic mobility is defined as the capability to deploy and sustain military forces worldwide in support of national strategy. The DOD concept for strategic mobility includes airlift, sealift, and overseas prepositioning of materiel. The U.S. Transportation Command provides this support to the Army.

c. The development of containerized shipping techniques permits the rapid surface movement of materiel. The direct support system is designed to take advantage of this capability and to deliver materiel directly to the user. Although airlift capabilities have increased, the Army still relies on surface movement for the bulk of its cargo.

10-15. Transportation functional areas

A transportation system within a theater of operations is divided into three functional areas:

a. Modal operations. These consist of the physical movement of personnel and materiel on a transportation conveyance. Basic modes of transportation are air, rail, road, and water.

b. Terminal operations. This involves the transfer of cargo from one mode of transport to a different mode. It also includes the transfer of cargo from one type of transport within a mode to a different type at an intermediate point along the transportation system. Terminal operations in a theater of operations typically take place at railheads, truck-heads, pipe-heads, air-heads, inland waterway terminals, ports, or beaches.

c. Movement management. This includes staff planning and coordination to ensure that the transportation system is used for the movement of personnel and cargo to the right place, at the right time by the most economical and efficient means. Movement management functions are performed by staff elements and control centers at various levels of command. The two major elements of movement management are transportation movement and highway regulation.

Section VI: Supply Function

10-16. Supply categories

Supply is the procurement, distribution, maintenance while in storage, and salvage of commodities needed to equip, maintain, and operate a force. This includes the determination of type and quantity of supplies. There are three categories for requesting and issuing supplies:

a. Scheduled supplies. These respond to requirements that can be reasonably predicted (Classes I, III (bulk), V, and VI).

b. Demand supplies. These are supplies for which a requisition must be submitted (Classes II, III (packaged), IV, VII, and IX).

c. Regulated supplies. These are supplies that the commander has decided must be closely controlled because of scarcity, high cost, or mission need.

10-17. Levels of supply

Levels of supply are the quantities of materiel to be held in anticipation of future demands. The Department of the Army, Deputy Chief of Staff, Logistics (DCSLOG), prescribes levels of supply authorized to be on hand or on requisition. They are managed and maintained at various levels.

a. Department of the Army level. Since 1992, major policy changes have been made to the Army prepositioned stocks (APS) program. These changes reduced requirements, de-linked accounts from specific CINCs, and redistributed APS materiel into strategic stockpiles oriented toward supporting multiple CINCs. These changes provide strategic flexibility to logistically support two nearly simultaneous major theater wars (MTW).

(1) Program changes reduced 17 theater Reserve and three CONUS Reserve accounts to five regional APS stockpiles (APS-1 through APS-5). APS operational projects were reduced from 54 CINC-specific to 14 common-use projects.

(2) Centralized ownership of all APS resides at HQDA, with the Army Materiel Command and the Office of The Surgeon General responsible for accountability and program management.

(3) The APS program consist of four categories of stocks (quantities are current as of July 1997):

(*a*) *Prepositioned sets.* Seven brigade-size combat unit sets of equipment, one division-base set, and one echelon above division CS/CSS set strategically positioned worldwide both ashore and afloat.

(*b*) *Operational projects (OP).* OP stock is materiel above normal TOE, TDA, and CTA authorizations tailored to key strategic capabilities essential to the Army's ability to execute its power projection strategy. Stock is primarily positioned in CONUS with tailored portions prepositioned overseas and afloat.

(*c*) *Sustainment.* Equipment and supplies required to sustain the warfight as specified in operation plans. Sustainment stocks are positioned OCONUS in APS-2 through APS-5 to support committed forces until CONUS resupply is established. APS-1 is the CONUS reserve stockpile. Army war reserve secondary items (AWRSI) are included in this category.

(*d*) *War reserve stocks for allies (WRSA).* WRSA is an OSD directed program that ensures United States preparedness to assist designated allies in case of war. WRSA assets are financed and owned by the United States.

(4) APS Stockpiles are as follows:

(*a*) *APS-1 (CONUS).* Consists of sustainment and operational projects. Secondary item requirements have been computed against the 10-division, 2-MTW scenario and posted to accountable records. These requirements are the basis for funding consideration in the POM to fill existing sustainment shortfalls.

(*b*) *APS-2 (Europe).* Consists of sustainment, operational projects, and three prepositioned sets in Western Europe and Italy, and one field artillery battalion set in Norway. The term POMCUS is not used anymore.

(*c*) *APS 3 (Afloat).* Consists of sustainment, operational projects, and one prepositioned set. Interim loadout of 12 ships is complete with ships on station in their area of responsibility. End state will be achieved by FY 01 with 16 ships.

(*d*) *APS-4 (Pacific).* Consists of sustainment, operational projects, one prepositioned set, and War Reserve Stocks for Allies-Korea (WRSA-K).

(*e*) *APS-5 (Southwest Asia).* Consists of sustainment, operational projects, and two prepositioned sets (Kuwait and Qatar). The remaining brigade and division base are scheduled for fielding FY 99-00.

(*f*) An eighth brigade set has been approved for stockage and the decision on location is pending.

b. GS and DS levels. Authorized stockage list (ASL) stocks are held by DS/GS units. They consist of demand-supported, mission-essential, and initial provisioning items. Inventory at the DS/GS level is used to support the consuming organizations.

c. Unit level. A unit's prescribed load list (PLL) consists of demand-supported and mission-essential items to support unit maintenance and initial provisioning items. Materiel authorized for unit stockage (PLL stocks) must be on hand or on order (replaced as consumed).

10-18. Other supply programs

Other supply programs include Army food program (subsistence, troop issue, wholesale subsistence supply, and garrison and field food service), clothing sales/initial issue activities programs, organizational clothing and individual equipment items program.

Section VII: Organization Sustainment

10-19. Authorization documents

a. An organization must have the ability to place demands on the Army supply system. To do this the organization must have a HQDA approved authorization document and a valid address so the system has the ability to deliver to specific organizations. The SORTS is the single automated system within the DOD used to provide the NCA and the Joint Chiefs of Staff with authoritative identification, location, and resource status information on organizations.

b. Before a unit can be documented in the authorization document database or assigned people and equipment, it must first be registered in SORTS. This address is based on the UIC uniquely assigned to parent organizations and the Department of Defense activity address code (DODAAC). The DODAAC is a unique address code that identifies a specific unit authorized by DOD to requisition, receive supplies, or receive billing.

10-20. Force readiness considerations

a. Assessment of the Army's capability to mobilize, deploy, and sustain forces defines current force readiness by comparing its actual capabilities with its designed capabilities. The logistical sustainability of the force is analyzed to identify and measure the effects of various readiness and resource shortfalls and indicate possible solutions. The results are incorporated into Army guidance documents. They are used as an analytical basis for establishing priorities and allocating resources in the POM process by—

(1) Assessing the capability of the Army to deploy logistically ready forces and to sustain them in combat, consistent with the prescribed scenario.

(2) Providing a common baseline that facilitates wartime planning by the logistics community.

(3) Developing a means to allocate resources and establish priorities by expressing the relationship between logistical assets and requirements.

b. The force integration analysis is a detailed affordability and executability analysis providing a link between the planning and programming processes by assessing affordability and executability of the Total Army Analysis force.

Section VIII: Summary

Logistics sustainability is the "staying power" of forces, units, weapon systems, and equipment. It includes those mechanisms, equipment, and facilities necessary to provision organizations with people and materiel over prolonged periods. Sustainment capability must be structured into all the Army plans, processes, products, and organizations. The measurement of sustainment is the basis for success of Army forces in combat.

Chapter 11
Stationing the Force

Section I: Introduction

11-1. Complexity of the stationing decision process

Stationing a new organization or relocating an existing one requires detailed planning and evaluation that encompasses all aspects of stationing in accordance with AR 5-10. Development of alternatives, analysis of their impacts, the unit's operational needs, quality of life needs of soldiers and their families, and many other factors, must be considered.

11-2. Multiple agency involvement

All affected installations (gaining and losing) and units, including moving units, support units, and support infrastructure agencies, as well as MACOM and DA staff elements must be involved in planning and execution.

Section II: Planning

11-3. Planning organizational stationing

The impetus to consider a stationing action can be generated by a wide variety of issues. Unit activations, inactivations, restructuring, reorganization, base closure and realignment, are only a sample of these issues. Regardless of the impetus, the planners and staff that address a stationing action must work extra hard to recognize and coordinate all the operational, cost, statutory, and quality of life implications of these actions.

a. Stationing analysis. The decision making process for stationing organizations includes a detailed stationing analysis. This analysis considers the following stationing planning factors:

(1) Rationale for the action.

(2) Statutory constraints and guidance.

(3) Army stationing vision and guidance.

(4) Local community impact.

(5) Operational considerations.

(6) Demographic supportability (RC, only).

(7) Budget impact.

(8) Geographical balance (RC, only).

(9) Facilities impact.

(10) Support to RC training.

(11) Ranges available.

(12) Coordination.

(13) Environmental impact.

(14) Potential issues.

(15) Quality of life.

(16) Personnel implications (military and civilian).

(17) Peacetime command and control relationships (RC only).

(18) Other actions planned at the affected installations.

(19) Training (maneuver area—land acquisition, environmental impacts).

(20) Intraservice Support Installation Area (AC to RC support (AR 5-10)).

b. Plan approval authority. The authority to approve organization stationing plans is at MACOM or higher level in accordance with criteria detailed in AR 5-10. Stationing analysis findings and recommendations are passed through the appropriate level staffs to decision makers in the form of stationing packages. Due to the political and emotional sensitivity of many stationing actions, the authority to announce stationing decisions is distinct from the authority to approve and, for coordination sake, is centralized at the HQDA level (DCSOPS).

c. Organizational assessments. Organizational assessments examine the impacts of proposed stationing actions, especially the availability of organizational and support infrastructure facilities. They determine if the stationing process can support force modernization and force structure decisions. The ability to properly station a total organization must be considered as a factor affecting unit readiness.

d. Environmental considerations. All stationing actions must comply with the statutory requirements of the National Environmental Policy Act of 1969 (NEPA). The stationing proponent (normally the installation/garrison commander) is responsible for the environmental analysis. NEPA's focus is to ensure that the decision maker takes the environmental consequences of all feasible alternatives into consideration. One of the following three levels of analysis is required to satisfy NEPA:

(1) *Categorical Exclusion (CX).* Actions that, by their nature, generally have no significant environmental consequences. Categorical Exclusions are listed in Appendix A, AR 200-2. Some CXs require documentation in a record of environmental consideration (REC) as discussed in AR 200-2.

(2) *Environmental Assessment (EA).* An EA provides the decision maker with evidence and analysis for determining whether a Finding of No Significant Impact (FNSI) or an Environmental Im-

pact Statement (EIS) should be prepared. The EA describes actions, alternatives, impacts, and lists agencies consulted. It is nominally a one year effort which includes opportunities for public comment.

(3) *Environmental Impact Statement.*

(*a*) A public document with the primary purpose of ensuing that NEPA policies and goals are incorporated early into the programs and actions of Federal agencies. An EIS is required to provide a full and fair discussion of significant environmental impacts. Along with other project documents, the EIS provides a basis for informed decision making. It also allows public review and comment on the proposal. As stated in AR 200-2, an EIS is required when the proposed action has the potential to—

- Significantly affect environmental quality, public health, or safety.
- Significantly affect historic or archaeological resources, public parks and recreation areas, wildlife refuge or wilderness areas, wild and scenic rivers, or aquifers.
- Have a significant adverse effect on properties listed or meeting the criteria for listing in the National Register of Historic Places, or the National Registry of Natural Landmarks. (The National Park Service, U.S. Department of the Interior maintains the National Register.)
- Cause a significant impact to prime and unique farm lands, wetlands, flood-plains, coastal zones, or ecologically or culturally important areas or other areas of unique or critical environmental concern.
- Result in potentially significant and uncertain environmental effects or unique or unknown environmental risks.
- Significantly affect a species or habitat listed or proposed for listing on the Federal list of endangered or threatened species.
- Either establish a precedent for future action or represent a decision in principle about a future consideration with significant environmental effects.
- Adversely interact with other actions with individually insignificant effects so that cumulatively significant environmental effects result.
- Involve the production, storage, transportation, use, treatment, and disposal of hazardous or toxic materials that may have significant environmental impact.

(b) Nominally a two-year effort, the EIS begins with a Notice of Intent (NOI) published in the Federal Register. It includes extensive opportunities for public involvement. It culminates in a Record of Decision (ROD), which explains the Army's decision, environmental impacts, mitigating actions to reduce adverse effects, and monitoring steps to ensure compliance with the decision and accuracy of predictions.

11-4. The role of installations in stationing

Although higher level staffs and senior decision makers have final authority, the installation's role is critical for thorough planning, analysis, and ultimately the successful execution of stationing actions. The installations are the platforms from which these stationing actions are initiated and executed. As the Army transitions to a CONUS based Service, the level of installation response becomes more and more critical. An essential aspect of this response to the stationing actions is the availability and condition of real property (such as land, facilities, buildings, and infrastructure).

a. Real Property Planning Board.

(1) With the Installation Commander as chairman, the Real Property Planning Board (RPPB) develops the installation master plan (IMP) in coordination with DA, DOD, and other Federal agencies, and local and state governments. The RPPB ensures that plans and programs are developed in harmony with environmental, energy, safety, and security requirements.

(2) Two key members of the RPPB focus on the installation's facilities-related issues. They are the representative of the U.S. Army Corps of Engineers (USACE) and the Director of Public Works (DPW) (formerly Director of Engineering and Housing (DEH)). The Army has assigned an installation support mission to USACE to augment Army installations' organic capabilities. These services are available to assist installations in accomplishing their environmental, housing, and real property maintenance activities (RPMA). The DPW is the executive secretary of the RPPB for master planning and is responsible for real property management. He orchestrates these duties in accordance with the Real Property Master Plan (RPMP) which he develops as a component of the IMP. The RPMP is discussed further in the next section.

b. Army stationing and installation plan.

(1) To project personnel support requirements into the future, master planners have an automated management tool, the Army Stationing and installation plan (ASIP) data base (described in AR 5-18). ASIP draws on a number of other data bases to include SAMAS, SORTS, and TAADS-R, to provide the authorized planning populations (officer, warrant officer, enlisted, U.S. civilian, and other civilian) of all units, activities, and other tenants located at Army installations, to include Reserve Component installations. This data covers the cur-

rent fiscal year and the following six years. The ASIP is updated and distributed semi-annually.

(2) Information obtained from ASIP is used to compare future population and unit requirements with those currently supported.

c. Real Property Planning and Analysis System. Real property planning focuses on adequately defining requirements. It is key to satisfying facility needs for mission accomplishment. The Real Property Planning and Analysis System (RPLANS) and headquarters RPLANS (HQ RPLANS) are additional automated master planning tools. They provide the capability to calculate peacetime facility space allowances and compare them to available real property assets for a wide range of facility types.

Section III: Real Property Management

11-5. Real Property Master Plan

The RPMP is the installation's plan for the use, reuse, replacement, expansion, or disposal of real property (land or facilities) to support ongoing and future mission requirements. Real property shortfall solutions (such as facility reuse, leasing, real estate acquisitions, new construction) are detailed in the plan. The plan also identifies opportunities where the local community can provide support. The RPMP also reflects the existing installation RPI and its usage. This inventory provides the basis for future planning.

a. Real property shortfall solutions. Installation requirements, in the form of MDEP are included in the MACOM POM submission. They address two means to solve real property shortfalls, non-structural and structural.

(1) Non-structural solutions are traditionally small cost improvements such as disposals, leasing, minor construction, and maintenance and repair that by their nature and relatively low cost may or may not require Congressional approval. If the MACOM programs are included and resourced during the POM process, the non-structural solutions are put in place. Traditionally most non-structural solutions can be resolved at the installation without major additional funding.

(2) Structural solutions involve major acquisitions or major construction. Structural solutions require Congressional approval. This process requires 5 to 7 years from initiation to approval. Early identification of structural solutions is essential if these actions are needed to execute the stationing action.

b. Components of the RPMP. The RPMP consists of four components. The components address the management and development of the installation as it transitions from its existing state, through the short term, to support both long-range peacetime, and mobilization missions.

(1) *Long-Range Component (LRC).* The LRC establishes the basic framework, specific standards, and options for developing and managing the installation. It documents the installation capabilities, its constraints, and outlines the opportunities with emphasis on expansion potential, environmental constraints and baseline, and the development standards with which real property will comply. This framework sets the parameters insuring that the installation sustains the needed level of quality real property aspects over the planning horizon. The installation design guide (IDG) is a critical standard element of the LRC. It sets the design parameters for exterior and interior real property development. This document is one of the prime standards that ensures the Army's development of that installation is sustained at a high level of quality.

(2) *Capital Investment Strategy (CIS).* The CIS defines the installation's investment strategy and is required to resolve the real property shortfalls defined in the RPMP. It defines a requirements analysis to support installation missions as well as any proposed stationing actions. It documents an economic analysis that defines a set of alternatives and identifies the best means to resolve inadequacies and shortfalls . The CIS defines both non-structural and structural solutions, and identifies the required investments needed to support these solutions. Further, it identifies a time line that documents when these investments must be expended and projects completed. The CIS is based on requirements identified in the Tabulation of Existing and Required Facilities that defines by category code the shortfall and excesses in real property and the existing RPI by category code design. MACOMs have the prerogative to set resource constraints over their time line to ensure resource allocations reflect PPBES guidance.

(3) *Short-Range Component (SRC).* The SRC implements the CIS. It reflects day-to-day real property planning and management. Its principle element is the real property investment plan (RPIP) which identifies all specific projects and funding streams over the six year POM period, regardless of proponent or fund source.

(4) *Mobilization Component (MC).* The MC supports installations with a mobilization mission. It develops the expansion capability analyses of the LRC into specific plans.

c. Objectives of the RPMP. The RPMP components represent the installation community's collective vision for development. It sets forth an orderly framework of development that defines a plan that sustains a community of excellence, promotes close inter-governmental coordination between the surrounding communities, and establishes a strategic

investment planning process that insures that all real property requirements are met. From these objectives, the installation becomes an operational platform that can support existing as well as planned missions. Successful installation planning also achieves the following objectives:

(1) Establishes a vision and future direction for efficiently managing and acquiring and/or reducing real property at Army installations in order to effectively support the mission, management processes, and community aspirations.

(2) Establishes a power projection platform that can react to any contingency and still reflect a quality environment in which to work and live.

(3) Establishes a frame work for managing limited resources.

(4) Determines real property deficiencies and identifies costs.

(5) Ensures all actions comply with NEPA.

d. Maximizing the use of existing facilities.

(1) The underlying philosophy of the facilities strategy is to make maximum use of current facilities and to maintain what is owned. This includes renovation and modification of existing facilities. Only when economically justified should the construction of new facilities be considered.

(2) Requirements for facilities are evaluated in the development of military construction or family housing construction programs. Maintenance and minor modifications of existing facilities are primarily resourced as part of the Army sustainment function. The integrated facilities system (IFS) is the database of record for the real property holdings (land and facilities) of the Army. Although there is no direct digital interface between ASIP and IFS, both are managed by Assistant Chief of Staff for Installation Management (ACSIM). The RPLANS and HQRPLANS, link ASIP and IFS data by calculating the facilities allowances to support Army units described in the ASIP, comparing that with the existing real property holdings, and determining the net deficit or surplus and the associated costs. At installation level this is accomplished by RPLANS and at MACOM and U.S. by headquarters RPLANS.

e. Real Property Management System. The Real Property Management System (RPMS), illustrated in Figure 11-1, is the Army's management system for facilities. RPMS represents the resource management and execution of the functions called for in the RPMP, arranged in a life-cycle format. In this format it shows a continuous process composed of requirements, programming, acquisition, operations and maintenance, and disposal.

f. Decision support tools and applications. In order to meet the dynamic process of planning for organizational stationing, many tools are required for the Army to conduct real property planning. Listed below are decision support tools and applications that are essential for the army to provide real property planning to support organizational planning:

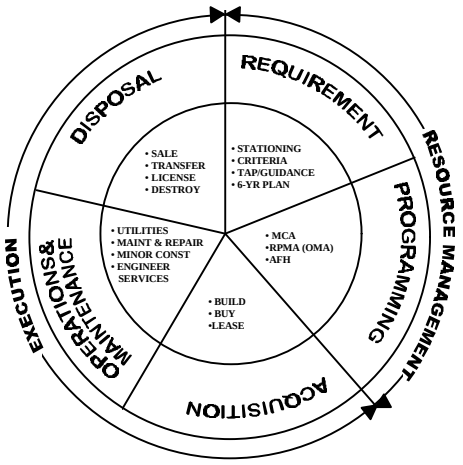


Figure 11-1. The Real Property Management System

(1) *Geographic Information System (GIS) mapping support.* As the need for available land becomes more and more critical, Army planners, as well as stationers, must understand the total spatial layout of the installations from which stationing analyses are conducted. GIS provides installations the capability to link mapping and tabular data, thus allowing a better understanding of the layout of the land and environmental constraints, as well as opportunities and infrastructure.

(2) *Integrated Facility System (IFS/HQIFS).* Organizational stationing analysis, at any level, cannot be completed without acquisition of accurate, reliable RPI that documents the existing inventory of real property on the installation. The IFS is the installation tool that sustains the RPI. Further, the headquarters IFS (HQIFS) is an upward reporting system that provides the worldwide inventory of Army real property. This database provides the RPI that is reported annually to congress and is relied upon by all echelons to access on-going stationing proposals. IFS is an installation fielded system. Access to the HQIFS can be provided through dial up service by contacting the U.S. Army Center for Public Works.

(3) *Real Property Planning and Analysis System (RPLANS/HQRPLANS).* The RPLANS is an installation tool that helps the installation develop

real property requirements. It compares the installation's RPI with the installation's real property allowances, and calculates shortfalls and excesses in installation real property. It incorporates all Army criteria to develop the initial calculations of requirements. HQRPLANS provides MACOMs and HQDA an Army perspective on how installations are postured in terms of meeting their facility needs. It is used by DCSOPS and other DA staffs to conduct stationing analysis. Access can be provided through dial-up service by contacting the U.S. Army Center for Public Works,

(4) *Housing Operations Management System (HOMES).* HOMES provides commanders automated information management support for improved Army Family Housing (AFH) and Unaccompanied Personnel Housing (UPH) management.

(5) *Other applications.* The following systems are other applications that are used to conduct stationing:

(*a*) *Army Criteria Tracking System (ACTS).* Army space planning criteria is used to determine construction allowances (square footage) based on assigned missions. ACTS is the Army-wide single information source for this data. Access to ACTS can be provided through dial-up service by contacting ACSIM.

(*b*) *Facility Planning System (FPS).* Allows planners to see the latest versions of MTOEs and TDAs to gather authorized equipment support information.

11-6. Installation Status Report

The Installation Status Report (ISR) is a three-part decision support system intended to provide decision makers at all levels with an annual objective assessment of the status of Army installations with respect to infrastructure (ISR Part I), environment (ISR Part II), and services (ISR Part III). It provides installation status in the form of C-ratings (C-1 being best and C-4 being worst), similar to the unit status report (USR), to assess the quantity and quality of installation level facilities, environment, and services.

a. Part I. For Part I, installation infrastructure is grouped into five broad facility areas: mission, mobility, housing, community, and installation support. Quantitative assessments evaluate these facilities by determining what percentages of installation requirements are satisfied by either on-hand permanent or semi-permanent facilities. Qualitative assessments evaluate the condition of installation facilities based on their physical condition. Part I also contains cost algorithms that estimate the costs to improve facility C-ratings, and construct those facilities identified as required, but in deficit.

b. Part II. Part II evaluates 23 different environmental programs called Media. Examples include air quality, hazardous and toxic waste management, and threatened and endangered species. Part II assesses installation environmental compliance with legal requirements, summarizes environmental conditions, measures mission impacts, and assesses the effectiveness of environmental program performance. Quantitative assessments compare environmental program accomplishments against standards based on DOD measures of merit and DA management indicators. Qualitative assessments evaluate environmental program status by comparing the current conditions of installation environmental programs against Army-wide standards. Army-wide standards are based on tasks that installations must routinely accomplish to provide an effective environmental program that supports mission accomplishment. Part II also extracts environmental funding data from the Environmental Program Requirements (EPR) system to reflect funded and required environmental program resources.

c. Part III. Part III sets Army-wide performance standards for every installation support service performed or available at an Army installation. It assesses both the quantity and quality of service delivery, such as how much service is provided to customers and how well customer service delivery requirements are met. It also assesses how much it should cost the Army to provide these services against the Army-wide performance standard. ISR Part III enables a broad-brush look across the Army at functional areas or particular services in order to establish benchmarks for best practices, develop funding strategies, and assess installation performance against current resource levels. Part III also assesses how well installations are able to perform given the resources available to them with the focus on "sizing the requirement." That is, determining how much should it cost to provide services to customers to maintain a given level of quality and still satisfy their needs.

d. Headquarters Installation Status Report. To facilitate viewing the reported status of Army infrastructure, environment and services as an integrated system, HQDA has undertaken development of the HQISR executive information system. HQISR provides executive level information for HQDA, MACOM and subordinate levels of command. When fully developed, HQISR will provide an overall picture of an installation's status, and show how deficiencies in installation conditions affect infrastructure, environment and service delivery. HQISR will assist each level of command in developing management approaches and policy decisions concerning Army facilities, environmental progress, impacts upon mission in strategic planning and prioritization, and the justification and allocation of resources sup-

porting installation infrastructure, environmental programs, and service delivery.

Section IV: Military Construction Program

11-7. Military construction

a. Military construction (MILCON) projects under $500,000 are normally funded by OMA (other funding options include the Army industrial fund; procurement of ammunition, Army; or RDTE appropriations). Installation funded construction projects that are intended solely to correct deficiencies that are life, safety, or health threatening can go up to $1,000,000. The projects that come under these spending limits are normally approved at installation level. Funds for this construction must be programmed in the command operating budget.

b. The project must produce a complete and usable facility within cost limits. Adding funds from any other source is prohibited. The primary advantage of this source of funding is that a new facility can be rapidly constructed.

c. Construction projects that exceed $500,000 (other than Army family housing) are discussed in the following paragraphs:

(1) *Unspecified Minor Military Construction, Army.* MILCON projects costing between $500,000 and $1.5 million that are unforeseen urgent requirements, and that cannot wait for normal programming procedures, may be funded from the Unspecified Minor MCA (UMMCA) account at HQDA. The upper limits for UMMCA projects that are solely life, health or safety related is $3 million. Installations submit UMMCA projects, through their MACOMs to HQDA as soon as they are identified and documented (DD Form 1391-EF). All projects are submitted by the 1391 Processor. MACOMs review documentation for regulatory compliance.

(2) *Military construction, Army.* Other construction projects are programmed as MCA and must be approved by Congress. These MCA program projects are the principal source of new Army facilities. The success of a MILCON project in programming and budgeting is directly related to the RPMP process. Documentation (CIS, SRC) must demonstrate that planning was completed and the proposed project is the most logical and most cost effective alternative. Only MILCON projects selected by the MACOM are transmitted to HQDA for consideration. MILCON project documentation is reviewed and certified by the MACOM and supporting USACE affirming that specific regulatory requirements have been satisfied. The DPW is responsible for preparation of installation level MILCON documentation.

(*a*) DD Form 1391-EF (electronic form) is the MILCON project programming form prescribed by DOD. The form contains project description, construction cost, land acquisition cost, justification, and backup data. The installation submits the form to its MACOM and to the USACE.

(*b*) Timelines in the RPMP identify facility construction needs over a 20-year period. Projects that require MCA funding must be identified five to six years before the date the facility is required. See Figure 11-2 for the optimal timeline of a hypothetical MCA project.

(3) *MILCON programming.* MACOMs must identify MILCON projects for the first year of their POM a year before their POM is submitted to HQDA. The MCA programming process consists of four phases:

(*a*) *Guidance year (GY).* The GY begins with HQDA providing each MACOM general instructions and the current policy regarding construction programs in the PBG and Army guidance. During GY, MACOMs submit their updated six-year MCA program initiated by their installations for each project (NLT 1 May). The programs and priorities of the MACOMs are compiled, integrated and prioritized by the HQDA Program Review Board (PRB). The PRB structures the overall MCA program consistent with POM priorities or decisions.

(*b*) *Design year (DY).* By August of the DY, HQDA must establish the project cost estimate based upon a 35-percent design or parametric estimate. Prior to that, projects are briefed to OSD and OMB.

(*c*) *Budget year (BY).* Each project in the MCA program must be defended before Congress. During the BY, final design is largely completed.

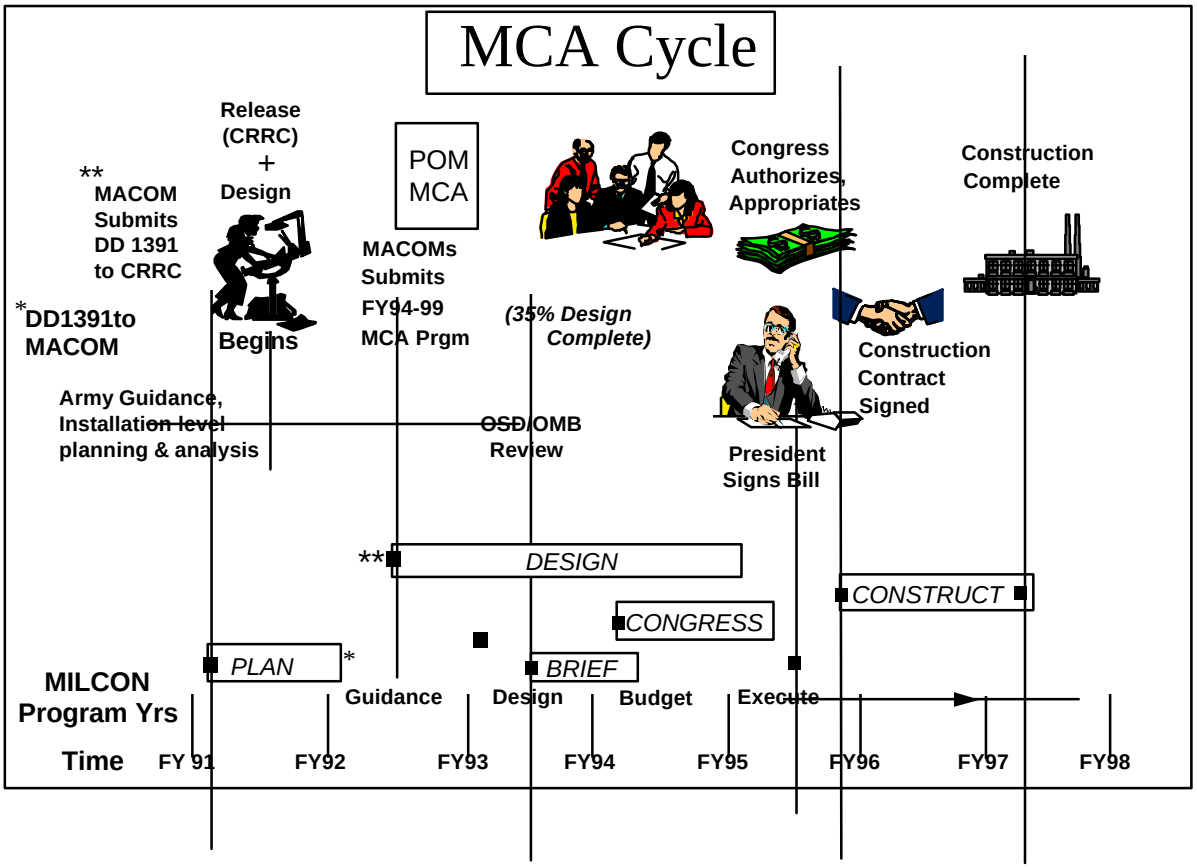
(*d*) *Program year (PY).* The PY, or execution year, is the year funds are made available for construction. It is the first year of the construction phase of each MCA project.

(4) *Construction Appropriation, Programming, Control, and Execution System.* The Construction Appropriations Programming, Control, and Execution System (CAPCES) database supports the funds management and program formulation functions as related to MCA, AFH, and the Defense medical (MCDM) programs. CAPCES manages and controls MILCON projects throughout PPBES. It is updated as required and provides input to DA's program optimization and budget evaluation (PROBE) database.

11-8. Army family housing

The AFH account is a separate appropriation within MILCON. It is designed to provide housing facilities, operations, and services for military and key

civilian personnel. The AFH appropriation is unique among the facilities accounts in that it funds both family housing construction and operations and maintenance programs (including utilities and leasing). Its major program elements include new construction, improvements, leasing, operations, maintenance and repair, and utilities. AFH projects have different statutory and regulatory rules and limitations.



Sequence of Events:

- Installation develops MILCON project in RPMP
- Project on DD Form 1391-EF transmitted to MACOM and USACE
- MACOM selects projects and transmits to ARSTAF (CRRC)
- CRRC finds project meets guidance and approves design start
- Project makes MACOM POM - design continues
- Project is briefed to OSD and OMB
- Project surpasses 35% design hurdle and makes Presidents Budget
- Project briefed to Congress (HNSC and SASC Authorization)
- Project briefed to Congress (HAC and SAC Appropriation)
- Project design is complete
- President signs Defense Budget approved by Congress
- Contracting process executed—contract signed
- Construction oversight by USACE - Facility accepted by USACE
- USACE passes facility to Installation for use

Figure 11-2. Timeline for an MCA Project

Section V:
Real Property Maintenance Activities

11-9. Objective

The objective of real property maintenance (RPM) is to maintain existing facilities. The DPW prepares infrastructure requirements reports which document the requirements needed to operate and maintain real property. HQDA plans to use ISR Part I (facilities) to assess total RPM needs.

11-10. The annual work plan

The DPW formulates an annual work plan (AWP) for facilities management. The AWP addresses the resources necessary for accomplishing annual recurring repair, rehabilitation, maintenance projects, and day-to-day services. The AWP is the basic building block for the installation's base Operation and Maintenance, Army (OMA) budget execution and for the command budget estimate.

11-11. Funding source and guidelines

a. OMA pays for the day-to-day support of the Army's force structure. This includes operation, maintenance, and repair of the existing plant and utilities systems; minor construction; and such services as fire prevention and protection. It does not include family housing or research, development, test, and evaluation. Operations and maintenance execution is the responsibility of the MACOM and installation commanders.

b. RPM defines that portion of the appropriation that pays for the maintenance and upkeep of the RPI. Execution of RPM is decentralized to MACOM and installation commanders, who have the flexibility to decide where resources are applied.

Section VI:
Real Property Acquisition, Outgrant and Disposal Process

11-12. Acquisition

a. Acquisition process. The acquisition process involves acquiring real property, consisting of land and facilities. Acquisition requirements begin with the real property planning process. Requirements analysis identifies where shortfalls exist. The planning process also identifies the best acquisition process to meet the requirements. Land acquisition requirements are developed initially at the installation and are processed through the MACOM to HQDA to obtain Congressional. Execution is through real estate services provided by the U.S. Army Corps of Engineers. Any acquisition of real property requires specific legislative authority and funds appropriated for that purpose. Leases have senior level management interest. Additional controls such as DCSOPS validation of requirements for additional land and inclusion of these leases in the PPBES process may be imposed.

b. Acquisition methods.

(1) Permanent interest in land and facilities may be acquired by purchase, transfer, donation, exchange, or condemnation. For permanent requirements there are two types of acquisition. These are a fee simple title, in which the government owns all rights in a property, or an easement for access and use, such as roads or utility lines.

(2) Land and improvements that are required for short terms are acquired by leasehold. Leasing of unimproved lands and special-purpose space is within the authority of the Secretary of the Army. Leasing general-purpose space is within the authority of the General Services Administration (GSA).

(3) Real estate acquisitions exceeding $200,000 require ASA(ILE) approval and clearance by the Senate Armed Services Committee (SASC) and the House National Security Committee (HNSC). The exceptions are acquisitions for which there is line item MILCON authority.

(4) The need for base rights and the use and development of U.S. facilities in overseas areas during contingencies, war, or deployments in peacetime must be recognized. Acquiring real estate in a friendly overseas area is a command responsibility governed by agreements peculiar to the country involved, subject to authorities, approvals, and notifications required by Congress and DOD and Army policy.

11-13. Real property out-grants

Out-grants provide for use by others of land and facilities that do not interfere with the installation mission. Real property that is not within the planned needs or not required for immediate use may be granted to another entity for certain uses as allowed by law. The entity may be Federal;, state, or local government agency or private parties. This type of use may be granted by lease, easement, license, permit, transfer, or exchange. Some out-grants, require specialized management actions.

11-14. Real property disposal

Disposal, in the real estate sense, usually refers to selling a part or all of the property involved. This is based upon a determination that the property is excess to Army needs. Disposal action is also generated from the master planning process. Upon identification of excess land or facilities, the installation initiates the request for disposal authority through the MACOMs for approval. In accordance with public law, all disposal actions must be screened by the Department of Housing and Urban Development (HUD) for suitability for shelter for the homeless. Upon their decision (usually a 90 day process), the

installation is granted authority to pursue disposal action of excess property. Before property disposal, installations have the authority to out-grant their excess property for other uses. These uses may include non-DOD agencies. These recommendations again are based on the master planning process and the accurate real property database. Disposal is normally handled by an USACE district real estate division through special authority, through GSA under that agency's statutory authority, or as delegated by GSA to DOD/DA. Overseas, disposal of excess real estate is governed by agreements in force with the country involved.

11-15. Facilities

a. While land may be acquired when authorized, the acquisition process for facilities consists largely of the design and construction of new fixed facilities on existing Army installations. This process also includes build-to-lease contracts as authorized by Congress.

b. The final design is based on a statement of user requirements, existing criteria, and regulations. It is packaged as a set of contract documents that is advertised for competitive bids from construction contractors. A lump-sum, fixed- price construction contract is awarded to the lowest bidder. The design portion of the project proceeds in parallel with the programming process for projects in a fiscal year MILCON program.

Section VII: Summary

The Army is constantly exposed to stationing requirements; therefore, the force integrator must understand these relevant processes. Stationing soldiers in adequate facilities is a key quality of life issue that could have a major impact on unit readiness.

Chapter 12
Resourcing the Force

Section I:
Introduction

12-1. The resource task

HQDA, with the full participation of the MACOMs, PEOs, and other operating agencies resources the Army force and its support structure. The task requires the participants to plan, program and budget for required manpower and dollars and then allocate and manage the resources ultimately approved.

12-2. Resourcing aim and approach

The aim is to provide the CINCs of the unified combatant commands the best mix of Army forces, equipment, and support attainable within available resources. Toward this end, the participants—

a. Develop plans that structure, man, equip, train, station, and sustain the Army to support the national military strategy.

b. Develop programs that distribute projected manpower, dollars, and materiel among competing requirements according to Army resource allocation policy and priorities.

c. Develop budgets that convert program decisions on dollars and manpower into requests for congressional authorization and appropriations.

d. Execute programs that apply resources to achieve approved program objectives, and, adjust resource requirements based on execution feedback.

e. Execute budgets that manage and account for funds to carry out approved programs.

12-3. Planning, Programming, Budgeting, and Execution System

a. The Army PPBES serves as the Army's primary resource management system. Prescribed by AR 1-1, the PPBES makes up the Army component of the DOD PPBS.

b. The PPBES interfaces with joint strategic planning conducted by the Joint Staff with the unified combatant commands and Services and planning conducted by the OSD. Linking directly to OSD programming and budgeting, the PPBES develops and maintains the Army portion of the Defense program and budget.

c. This chapter outlines PPBES responsibilities and describes OSD's resource management framework. It then discusses the PPBES and its phase-by-phase biennial process.

Section II:
PPBES Responsibilities

12-4. Secretarial oversight

The Assistant Secretary of the Army (Financial Management and Comptroller) (ASA(FM&C)) oversees the PPBES and the development and promulgation of Army-wide PPBES policy. The ASA(FM&C) and other principal officials of the Office of the Secretary of the Army (OSA) also oversee operation of the PPBES process within assigned functional areas and provide related policy and direction.

12-5. System management and operation

The ASA(FM&C), with the Director of Program Analysis and Evaluation (DPAE), manages the overall PPBES. System phase managers set policies and procedures to carry out phase functions: The DCSOPS for planning, DPAE for programming, and ASA(FM&C) for budgeting and execution.

a. DCSOPS determines force and related requirements, develops the preliminary program force, and sets priorities for Army requirements, programs, and resources. DCSOPS also prepares Army Long Range Planning Guidance (ALRPG), the AMP, the RDAP, and TAP.

b. DPAE, with functional proponents, develops and defends the Army program, manages its codification in the POM, and reviews CINC IPLs and MACOM and PEO POMs. DPAE, with ASA(FM&C) and DCSOPS, guides and integrates the work of the Program Evaluation Groups (PEG) throughout the planning, programming, budgeting, and execution process.

c. ASA(FM&C) sponsors all Army appropriations except ARNG and USAR appropriations. ASA(FM&C) also supervises and directs preparation of Army budget estimates, incorporating the budgets of the ARNG and USAR, and then supervises and directs financial execution of the congressionally approved budget.

Section III:
OSD Resource Management Framework

12-6. The Future Years Defense Program

The DOD PPBS and the Service and Defense agency complementary systems produce a plan, a program, and finally the Defense budget. PPBS documents the program and budget as the FYDP.

a. The FYDP officially summarizes the programs developed within the PPBS and approved by the SECDEF. The FYDP lists resources by program

element (PE), resource identification code, fiscal year (FY), and value. It also sums resource data in various management arrays and includes separately published annexes for procurement, construction, and, collectively, research, development, testing, and evaluation.

b. The FYDP has three dimensions (Figure 12-1). The first dimension records resources by service and Defense agency. The second dimension records resources by 11 major Defense programs and gives the FYDP its distinctive structure. In its third dimension, the FYDP records program decisions on dollars and manpower related to specific appropriations. (See Tables 12-1 and 12-2.)

c. The FYDP accounts for all resources programmed by DOD. Assigning resources to specific major force programs, the FYDP shows fiscal year totals for forces, manpower, and dollars. For example, the FYDP for the FY 1998-1999 President's Budget (Figure 12-2) would—

(1) Give totals for each resource group by prior year (PY), current year (CY), and the FY 1998-1999 budget years (BYs).

(2) Extend total obligational authority (TOA) and manpower totals 4 years beyond the FY 1998/99 BY through FY 2003.

(3) Extend force totals 7 years beyond the FY 1998/99 BY through FY 2006.

d. The FYDP is updated three times each year as follows:

(1) When Defense components submit their POMs to OSD in the spring — a full POM during even years and an amended POM during the odd-year off cycle.

(2) When Defense components submit budget estimates about mid-September.

(3) When the President's Budget goes to Congress in January.

e. DOD is required to submit an amended OSD Budget Estimates Submission (BES) and President's Budget for the second year of each biennial budget.

12-7. Core DOD managers

In addition to the SECDEF, the core group of DOD managers, includes the following:

a. Deputy Secretary of Defense. The Deputy Secretary of Defense (DEPSECDEF) assists the SECDEF in overall leadership of the department. He exercises authority delegated by the SECDEF and conducts the day-to-day operation of DOD. The DEPSECDEF manages the PPBS.

b. Under Secretary of Defense (Acquisition and Technology). The Under Secretary of Defense (Acquisition and Technology) (USD(A&T)) exercises responsibility for acquisition matters DOD-wide and performs as the DAE. The USD(A&T) also represents DOD on foreign relations and arms control matters and serves as the primary adviser to the DEPSECDEF for the PPBS planning phase.

c. Chairman of the Joint Chiefs of Staff. The CJCS assists the President and SECDEF in providing for the strategic direction of the armed forces. The CJCS serves as the principal military adviser to the President and SECDEF. Shouldering responsibilities for planning, advising, and policy formulation, the CJCS participates in DOD's senior councils, where he speaks for the JCS and CINCs of unified combatant commands. The Vice Chairman of the JCS, who is the second-ranking member of the Armed Forces, acts for the Chairman in his absence.

d. Service Secretaries. The Service Secretaries convey the Service perspective on Defense matters to the SECDEF and DEPSECDEF and, as key advisers, provide them with candid personal views.

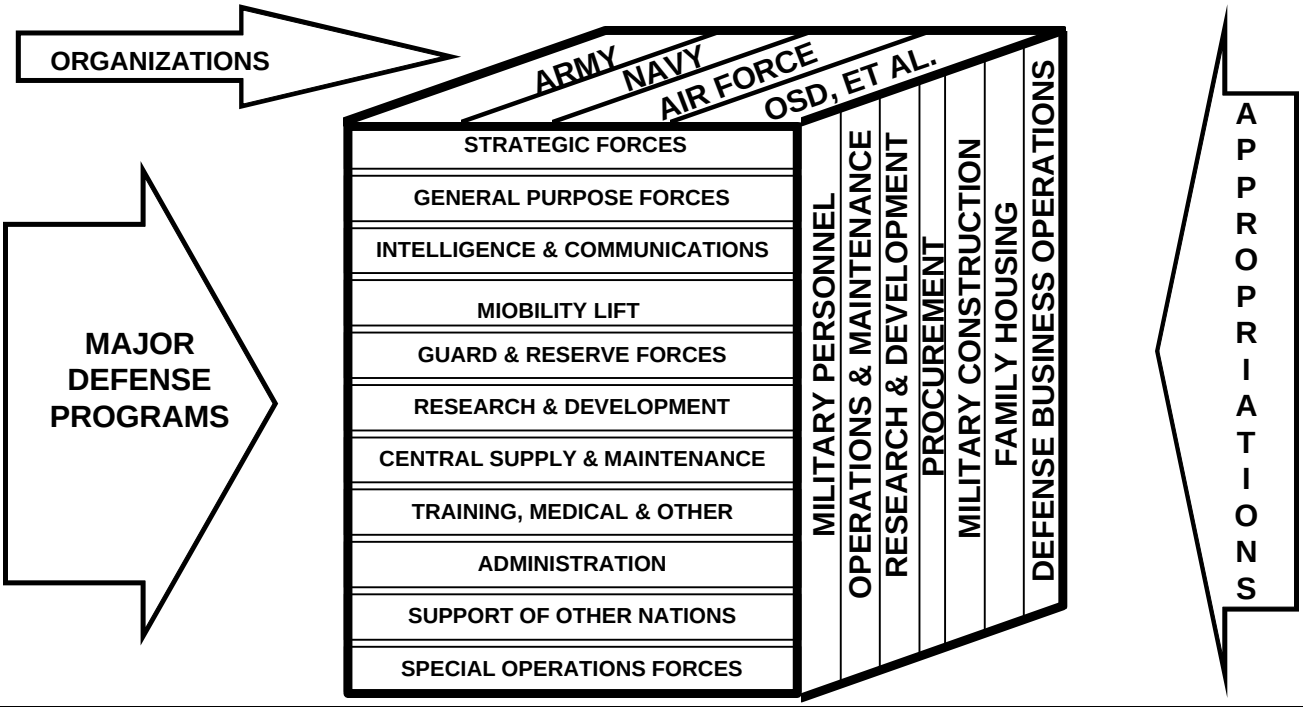


Figure 12-1. FYDP Structure

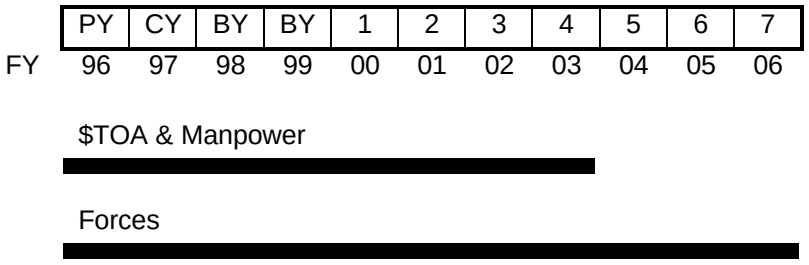


Figure 12-2. Example of FYs Covered by Type Resource in a FYDP

Table 12-1
Army Appropriation and Fund Managers

Resource Identification code	Appropriation (fund)[1]	Manager for requirements determination	Manager for program and performance
	Investment		
RDTE	Research, Development, Test, and Evaluation, Army	*DCSOPS*	*ASA(RDA)*
ACFT (APA)	Aircraft Procurement, Army	*DCSOPS*	*ASA(RDA)*
MSLS (MIPA)	Missile Procurement, Army	*DCSOPS*	*ASA(RDA)*
WTCV	Procurement of Weapons and Tracked Combat Vehicles, Army	*DCSOPS*	*ASA(RDA)*
AMMO (PAA)	Procurement of Ammunition, Army	*DCSOPS*	*ASA(RDA)*
OPA	Other Procurement, Army	DCSOPS	ASA(RDA)
	OPA 1	DCSOPS	ASA(RDA)
	OPA 2	DCSOPS	ASA(RDA), DISC4
	OPA 3	DCSOPS	ASA(RDA)
	OPA 4	*DCSOPS*	*ASA(RDA)*
MCA	Military Construction, Army	*ACSIM*	*ACSIM*
MCNG	Military Construction, Army National	*CNGB, ACSIM*	*CNGB*
MCAAAR	Military Construction, Army Reserve	*CAR, ACSIM*	*CAR*
AFHC	Family Housing, Army (Construction)	*ACSIM*	*ACSIM*
	Operations		
OMA	Operation and Maintenance, Army	*See table 12-2*	
OMNG	Operation and Maintenance, Army National Guard[2]	*CNGB, ACSIM*	*CNGB*
OMAR	Operation and Maintenance, Army Reserve[2]	*CAR, ACSIM*	*CAR*
MPA	Military Personnel, Army	*DCSPER*	*DCSPER*
NGPA	National Guard Personnel, Army	*CNGB*	*CNGB*
RPA	Reserve Personnel, Army	*CAR*	*CAR*
AFHO	Family Housing, Army (Operations)	*ACSIM*	*ACSIM*
DERA	Defense Environmental Restoration Act	*ACSIM*	*ACSIM*
AWCF	Army Working Capital Fund	*ASA(FM&C)*	*ASA(FM&C)*
CAWCF	Army Conventional Ammunition Working Capital Fund	*ASA(RDA)*	*ASA(RDA)*
IMET	International Military Education and Training Transfer Appropriation	*DCSLOG*	*DCSLOG*
FMFE	Foreign Military Financing Executive	*DCSLOG*	*DCSLOG*
FMS	Foreign Military Sales Program	*DCSLOG*	*DCSLOG*
HOA	Homeowners Assistance Fund, Defense	*COE*	*COE*
ATF	Department of the Army Trust Funds	*ASA(FM&C)*	*ASA(FM&C)*

Notes.
1. ASA(FM&C) serves as appropriation sponsor for all appropriations (funds) except ARNG and USAR appropriations, whose sponsors are the Chief, National Guard Bureau and Chief, Army Reserve, respectively.

2. See table 12-2.

Table 12-2

Budget Activity Management Structure for Operation and Maintenance Appropriations

Operation and Maintenance, Army

Army manpower and *tool obligation authority*
n Budget activity (BA)
nn Activity group (01 level)
nnn Budget subactivity
Records resources for Army Management Structure Code (AMSCO) nnnxxx, where nnn shows budget subactivity.

Code	Description	Manager'
BA 1: Operating forces		**DCSOPS**
11	***Land forces***	
111	Divisions	DCSOPS
112	Corps combat forces	DCSOPS
113	Corps support forces	
114	Echelon above corps forces	DCSOPS
115	Land forces operations support	DCSOPS
12	***Land forces readiness***	
121	Force readiness operations support	DCSOPS
122	Land forces systems readiness	DISC4, ACSIM DCSOPS
123	Land forces depot maintenance	DCSLOG
13	***Land forces readiness support***	
131	Base support	ACSIM
132	Maintenance of real property	ACSIM
133	Management and operational headquarters	ASA(MRA)
134	Unified commands	DCSOPS
135	Additional activities	DCSOPS
BA 2: Mobilization		***DCSOPS***
21	***Mobility operations***	
214	POMCUS[2]	DCSOPS[3]
211	Strategic mobilization	DCSLOG[3]
212	War reserve activities	DCSOPS
213	Industrial preparedness	DCSOPS[3]
BA 3: Training and recruiting		**DCSOPS**
31	***Accession training***	
311	Officer acquisition	DCSOPS
312	Recruit training	DCSOPS
313	One station unit training	DCSOPS
314	Reserve Officers' Training Corps (ROTC)	ACSIM
315	Base support (academy only)	ACSIM
315	Maintenance of real property (academy only)	ACSIM
32	***Basic skill and advanced training***	
321	Specialized skill training	DCSOPS
322	Flight training	DCSOPS
323	Professional development education	DCSOPS
324	Training support	DCSOPS
325	Base support (other training)	ACSIM
325	Maintenance of real property	ACSIM
33	**Recruiting, and other training and education**	
331	Recruiting and advertising	DCSPER
332	Examining	DCSPER
333	Off-duty and voluntary education	DCSPER
334	Civilian training and education	DCSPER
335	Junior ROTC	DCSPER
336	Base support (recruiting leases)	ACSIM
BA 4: Administration and service-wide activities		
41	***Security programs***	
411	Security programs	DCSINT
42	Logistics operations	
421	Service-wide transportation	DCSLOG
422	Central supply activities	DCSLOG
423	Logistic support activities	DCSLOG
424	Ammunition management	DCSLOG
43	***Service-wide support***	
431	Administration	ASA(MRA)
432	Service-wide communications	DISC4, ACSIM
433	Manpower management	ASA(MRA)
434	Other personnel support	ASA(MRA)
435	Other service support	Various
436	Army claims activities	TJAG
437	Real estate management	ACSIM
438	Base support	ACSIM
439	Maintenance of real property	ACSIM
451	Closed account	Note[4]
493	Environmental restoration	Note[4]
44	**Support of other nations**	
441	International military headquarters	DCSOPS
442	Miscellaneous support of other nations	DCSOPS

Table 12-2

Budget Activity Management Structure for Operation and Maintenance Appropriations

Manpower-only activity structure

Probe generates categories 8 and 9 below to meet manpower reporting requirements.

Category *8 records resources for AMSCO 84nxxx* where n=1, 6, 7, or 9 shows the *budget subactivity.*

Category 9 *records resources for AMSCO* 9nxxxx, where n=1, 2, 3, or *4 shows* the 0-1 level structure.

Code	Description	Manager'
Category 8:	**Medical activities, man-power only—reimbursable labor**	
84	**Medical manpower—reimbursable**	***TSG***
841	Examining activities	
846	Training-medical spaces	
847	Care in Army medical center	
849	Defense medical spaces	

Code	Description	Manager'
Category 9: Other manpower only		
91	***Defense agency manpower (military only)***	**DCSOPS**
92	***Special operations forces manpower¾reimbursable***	**DCSPER**
93	***Outside Department of Defense***	**DCSPER**
94	***Transients, holdees, and operating strength deviation***	**DCSPER**

Base support

Provides installation support functions for budget subactivities, 117, 315, 325, 336, and 438. Includes former accounts for base operations (BASOPSJ (AMSCO xxxx96) real property maintenance (RPM) (AMSCOs xxxx78 and 76), real property services (AMSCO xxxx79), and environmental compliance (AMSCOs xxxx53, 54, and 56).

Code	Description	Manager'
A	Real estate leases	ACSIM
B	Installation supply operations	DCSLOG
C	Direct and general support (DS/GS) maintenance of non-tactical equipment	DCSLOG
D	Transportation services	DCSLOG
E	Laundry and dry cleaning services	DCSLOG
F	The Army food services program	DCSLOG
G	Personnel support	ASA(MRA)
H	Unaccompanied personnel housing operation	ACSIM
J	Operation of utilities	ACSIM
K	Maintenance and repair of real property	ACSIM
L	Minor construction	ACSIM
M	Engineer support	ACSIM
N	Command element, special staff, headquarters commandant	ACSIM
P	Automation activities	DISC4, ACSIM
S	Community and morale support activities	ACSIM

Code	Description	Manager'
Q	Reserve Component support	ACSIM
T	Preservation of order/ counterintelligence operations	DCSOPS
U	Resource management	ASA(FM&C)
W	Contracting operations	ASA(RDA)
Y	Records management, publications (summary account)	DISC4, ACSIM
	Environmental compliance, pollution prevention, and conservation programs	ACSIM
Added Function		***Manager***
Base communications		DISC4
AMSCO xxxx95		ACSIM
Audio visual		DISC4
AMSCO xxxx90		ACSIM
Youth services, family programs		ACSIM
AMSCO 315819 and 315820 (for USMA resources) and AMSCO xxx719 and xxx720 (where xxx is 117, 325, or 438 depending on the command owning the resources)		

Table 12-2

Budget Activity Management Structure for Operation and Maintenance Appropriations

Operation and Maintenance—Army National Guard, U.S. army Reserve					
Records resources for AMSCO 5nxxx, where n=1 or 4 designates the 0-1 level structure.					
Code	**Description**	**Manager'**	**Code**	**Description**	**Manager'**
Army National Guard			***U.S. Army Reserve***		
BA 1: Operating Forces		**CNGB**	***BA 1: Operating Forces***		**CAR**
51	***Mission operations***		***51***	***Mission operations***	
	Training operations			Training operations	
	Recruiting and retention			Recruiting and retention	
	Medical support			Medical support	
	Depot maintenance			Depot maintenance	
	Base support[2]			Base support[2]	
BA 4: Administration 8 service-wide activities			***BA 4: Administration 8 service-wide activities***		
54	**Administration & service-wide activities**	**CNGB**	**54**	**Administration & service-wide activities**	**CAR**
	Information management			Information management	
	Public affairs			Public affairs	
	Personnel administration			Personnel administration	
	Staff management			Staff management	

Notes.

1. Manager for requirements determination and program and performance except as noted.
2. POMCUS rolls into War Reserve Activities effective FY 1997.
3. Manager for requirements determination. DCSLOG serves as manager for program and performance.
4. No functional manager—for year of execution only.
5. Follows support recording structure used for Operation and Maintenance, Army.

12-8. OSD PPBS forums

a. Executive Committee. Chaired by the SECDEF, the DOD Executive Committee (EXCOM) meets regularly as the key, senior deliberative and decision making body within DOD for all major Defense issues. The core group of DOD managers just described comprises the membership of the committee.

b. Defense Resources Board. The Defense Resources Board (DRB) assists the Secretary in making major program decisions. In addition to the Secretary and the Deputy Secretary (acting as DRB Chairman in the Secretary's absence) the DRB includes the CJCS and the VCJCS. Other members include the USD(A&T), Under Secretary of Defense (Policy) (USD(P)), Under Secretary of Defense (Personnel and Readiness) (USD(P&R)), DOD Comptroller, and the Secretaries of the Military Departments. (Although not official members of the body, Service Chiefs often accompany their Secretaries.)

c. Program Review Group. The Program Review Group (PRG) identifies major issues, analyzes them, and develops decision options for the DRB. The Director for PA&E chairs the group. Members from OSD include the Principal Deputy Under Secretary for Defense for Acquisition and Technology, the Principal Deputy Under Secretary of Defense (Comptroller), the Assistant Secretary of Defense for Strategy and Requirements (ASD(S&R)), the ASD(C3I), the Assistant Secretary of Defense for Force Management Policy (ASD(FMP)), the Assistant Secretary of Defense for Health Affairs (ASD(HA)), and the Assistant Secretary of Defense for Reserve Affairs (ASD(RA)). Members from the Services include the Army DCSOPS, the Director of the Army Staff (DAS), the Deputy Chief of Staff for Naval Operations (Resources, Warfare Requirements and Assessments), the Marine Corps Deputy Chief of Staff (Programs and Resources), the Air Force Deputy Chief of Staff for Operations and Plans, and the Joint Staff Director for Force Structure, Resources, and Assessment (J8).

d. Defense Acquisition Board and Joint Requirements Oversight Council. As chairman and vice chairman, respectively, the USD(A&T) and VCJCS direct the efforts of the DAB. The DAB oversees defense system acquisition, providing discipline through review of major programs. Assisting the DAB and USD(A&T) is the JROC, which is chaired by the VCJCS. The JROC articulates military needs and validates performance goals and program baselines at successive milestones for each DAB program.

Section IV: The Army PPBES

12-9. Concept

The PPBES ties strategy, program, and budget together. It helps build a comprehensive plan in which budgets flow from programs, programs from requirements, requirements from missions, and missions from national security objectives. The patterned flow—from end purpose to resource cost—defines requirements in progressively greater detail.

a. Long-range planning creates a vision of the Army 10 to 20 years into the future. In the 2 to 15-year midterm, this force provides the planning foundation for program requirements.

b. Guided by force requirements and still in the midterm, programming distributes projected resources. It seeks to support priorities and policies of the senior Army leadership while achieving balance among Army organizations, systems, and functions.

c. In the 0 to 2-year near term, budgeting converts program requirements into requests for manpower and dollars. When enacted into appropriations and manpower authorizations, these resources become available to carry out approved programs.

d. Formally adding execution to the traditional emphasis on planning, programming, and budgeting emphasizes Army concern for how well program, performance, and financial execution apply allocated resources to meet requirements.

12-10. Objectives

A main objective of the PPBES is to provide essential focus on Departmental policy and priorities for Army functional activities during all phases of the PPBES. Phase by phase objectives are as follows:

a. Through planning, to size, structure, man, equip, train, and sustain the Army force to support the national military strategy.

b. Through programming, to distribute projected manpower, dollars, and materiel among competing requirements according to Army resource allocation policy and priorities.

c. Through budgeting, to convert program decisions on dollars and manpower into requests for Congressional authorization and appropriations.

d. Through program execution, to apply resources to achieve approved program objectives and adjust resource requirements based on execution feedback. Through program and budget execution, to manage and account for funds to carry out approved programs.

12-11. Management decision packages

The PPBES architecture distributes and maintains program and budget resources by appropriation, MACOM, program element (PE), and MDEP. Used internally within the Army, MDEPs provide a useful resource management tool, serving two main functions. First, MDEPs help Army senior leaders when making resource decisions. Second, they help in generating reports required by OSD and the Congress. MDEPs fulfill these functions by pulling together in one package the fiscal and personnel resources programmed, budgeted, and executed to discharge a discrete portion of the Army's responsibilities under title 10. These statutory responsibilities group broadly into functions to man, equip, sustain, and provide installations for the Army. Collectively, MDEPs account for all of the Army's resources—Active, National Guard, and Reserve.

a. Each MDEP records manpower and total obligational authority over 9 fiscal years (Figure 12-3). System MDEPs also show item quantities over the same period.

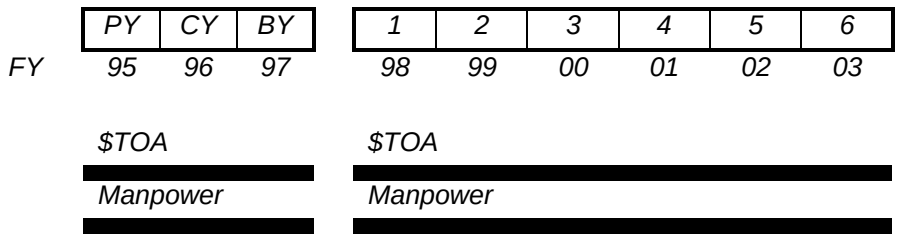


Figure 12-3. Example of FY Structure of Resources in MDEPs for a POM

b. During programming, MDEPs provide useful visibility. MDEPs help Army managers, decision makers, and leaders assess program worth, confirm compliance, and rank resource claimants. During budgeting, MDEPs help convey approved programs and priorities into budget estimates. During execution, the MDEPs assist HQDA principal officials, MACOM commanders, PEOs, and heads of other operating agencies in tracking program and financial performance. The financial data they get as feedback help determine future requirements.

12-12. PPBES forums

a. Army Resources Board. The SA chairs the Army Resources Board (ARB). The CSA is the vice-chair. The ARB serves as a forum for senior Army leadership, through which the SA and CSA review Army policy and resource allocation issues, particularly those emanating from the PPBES. In particular, the ARB focuses on planning, programming, and budgeting matters. It sets policy and approves guidance and priorities. It approves the prioritization of Army programs and selects resource allocation alternatives. On their completion, it approves the TAP and POM as well as budget submissions to OSD and Congress. ARB membership includes—

(1) *From the Secretariat.* The Under Secretary of the Army (USA), and the ASA(FM&C), ASA(IL&E), ASA(M&RA), and ASA(RDA).

(2) *From the Army Staff.* The DCSOPS.

b. ARB Support Group. Chaired by the ASA(FM&C), the ARB Support Group (ARBSG) serves as the central council for coordinating Army *policy*, PPBES, and other issues requiring ARB action. It meets to resolve emerging resource allocation issues or to refer them to the ARB. It provides recommendations to the ARB regarding prioritization of programs and resource allocation alternatives. It also monitors the implementation of resource alternatives. ARBSG membership includes—

(1) *From the Secretariat.* The Assistant Secretaries of the Army for Installations, Logistics, and Environment; Manpower and Reserve Affairs; Research Development, and Acquisition; the DISC4, the General Counsel, the ARB Executive Secretary, and the DAB.

(2) *From the Army Staff.* The DCSOPS and DPAE.

c. ARB Support Group-Ad Hoc. The ARBSG-Ad Hoc consists of the members of the ARBSG plus the DAS; DCSPER; DCSLOG; ACSIM; DARNG; and CAR. The Ad Hoc group convenes to consider issues having broader implications for the Army than the resource allocation or other PPBES matters. When convened the group functions in the same manner as the ARBSG.

d. Strategy and Planning Committee. The Strategy and Planning Committee (SPC) is chaired by the Assistant DCSOPS (ADCSOPS). The alternate chair for international activities is the ADCSOPS (Joint Affairs). The SPC provides an integrating forum for Army planning and oversees preparation of the ALRPG and the TAP. The SPC also considers the results of the Army's Force Feasibility Review which is conducted as part of TAA. The SPC prepares guidance and analyses related to strategy and reviews goals for their effect on programming and budgeting. Its members consist mainly of officials responsible for planning in the various offices and agencies of the Army Secretariat and Staff.

(1) *From the Secretariat.* The Administrative Assistant to the Secretary of the Army (AASA) and DAB as well as representatives of the Assistant Secretaries for Civil Works; Installations, Logistics, and Environment; Manpower and Reserve Affairs; and Research Development and Acquisition as well as representatives from the DISC4, Deputy USA (Operations Research), Deputy USA (International Affairs), and Army Reserve Forces Policy Committee.

(2) *From the Army Staff.* The DAS, DARNG, and DPAE as well as representatives of the DCSPER, DCSINT, DCSLOG, ACSIM, OCE, CAR, and Surgeon General.

e. Program and Budget Committee. The Program and Budget Committee (PBC) is co-chaired by the DPAE and DAB, each presiding depending on the subject. The PBC oversees the programming, budgeting, and execution phases of the PPBES, including information feedback among the phases. The PBC serves in both a coordinating and advisory role. It provides a continuing forum in which program and budget managers review, adjust, and decide issues. Its members consist mainly of officials responsible for programming and budgeting in the various offices and agencies of the Army Secretariat and Staff.

(1) *From the Secretariat.* The AASA and DISC4 as well as representatives of the Assistant Secretaries for Financial Management and Comptroller; Installations, Logistics, and Environment; Manpower and Reserve Affairs; Research Development, and Acquisition.

(2) *From the Army Staff.* The DARNG and CAR and representatives from the DCSOPS, DCSPER, DCSINT, DCSLOG, ACSIM, COE, and Surgeon General.

f. Council of Colonels. A group of colonels or civilian equivalents, who represent PBC members, meet throughout the programming and budgeting process in a forum known as the Council of Colonels. The Council is co-chaired by the Deputy Director of Management and Control, ASA(FM&C)

and the Chief, Program Development Division, Program Analysis and Evaluation Directorate (PAED). The group packages proposals, frames issues, and otherwise coordinates matters that come before its principals meeting in the PBC.

g. Prioritization Steering Group. Chaired by the DCSOPS, the Prioritization Steering Group (PSG) serves as another PPBES deliberative body. The PSG reviews the PBC-recommended program for balance and reviews prioritized lists of unresourced programs and decrements. As appropriate, the PSG recommends to the ARBSG zero-sum program alternatives within OSD resources, including the funding of unresourced programs together with proposed off-setting decrements. PSG members include—

(1) *From the Secretariat.* The Military Deputy to the Assistant Secretary of the Army, Research, Development, and Acquisition (ASA(RDA)), the DISC4, and the DAB.

(2) *From the Army Staff.* The DAS, DCSPER, DCSLOG, DCSINT, COE, and DPAE.

12-13. Program Evaluation Groups

HQDA uses six Active Army Program Evaluation Groups (referred to as title 10 PEGs) and two Reserve Component advisory PEGs to support planning, programming, and budgeting (Table 12-3). The Title 10 PEGs program and monitor resources to perform Army functions assigned by Title 10, United States Code (10 USC). An Army National Guard PEG and a U.S. Army Reserve PEG comprise the Reserve Component advisory PEGs. The advisory PEGs, provide technical assistance to the Title 10 PEGs and monitor actions to integrate the statutory, Defense, and Army requirements of the Army National Guard and U.S. Army Reserve into the Total Army program.

Table 12-3

Title 10 PEGs Listing Proponent Agency, Area of Activity, and Co-Chairs

Active Army
Manning (MM) DCSPER Provides the Active Army, Army National Guard, and U.S. Army Reserve with authorized personnel in appropriate grades and skills. Integrates these activities for the ARNG and USAR. *(co-chairs¾ASA (M&RA), DCSPER)*
Training (TT) DCSOPS Provides resources for Active and Reserve component unit readiness (to include medical units) and unit and collective training (Ground OPTEMPO and the Army Flying Hour Program), strategic mobility, combat training centers (CTC), mobilization, CJCS exercises, and military operations. Provides for collective training within such categories as officer acquisition (USMA, ROTC, OCS) and institutional training (initial entry training, leader development, professional development, functional training). Deals with programs, systems, and activities to satisfy intelligence requirements of the National Command Authorities (NCA) and Army leadership—requirements funded in the Army portions of the NFIP under Program 31 and Army intelligence support to national agencies under Program 9. (The Equipping PEG addresses most requirements for Tactical Intelligence and Related Activities (TIARA) managed by ADCSOPS-FD under Programs 2, and 4 through 10 and acquisitions to meet other intelligence and electronic warfare IEW) requirements.) *(Co-chairs¾ASA (M&RA), DCSOPS)*
Organizing (OO) DCSOPS Provides resources for Active and Reserve component modified table of organization and equipment (MTOE) and table of distribution (TDA) units; the individuals account (TTHS—trainees, transients, holdees, and students); and force manning decisions, civilian and military. Addresses activations and inactivations, as well as adjustments in authorized levels of organization (ALO), conversions of military and civilian manpower spaces, and related requirements for personnel, equipment, and facilities. Supports the Army health care program, which embraces activities of the Defense Health Program (DHP), U.S. Army medical commands, and deployable medical units of other MACOMs. Interests include requirements for medical readiness funded by the Army that concern wartime deployable assets. Interests also include requirements for peacetime healthcare in fixed facilities funded by OSD through the DHP. In addition, addresses daily activities to determine, issue, and oversee Army policy. *(Co-chairs¾ASA (M&RA), DCSOPS)*

Table 12-3

Title 10 PEGs Listing Proponent Agency, Area of Activity, and Co-Chairs

Equipping (EE) DCSOPS
Provides resources for the integration of new doctrine, training, organization, and equipment to develop and field war-fighting capabilities for the Active Army, ARNG, and USAR. Focuses mainly on research, development, and materiel acquisition.
Considers operating and support costs to field weapons and equipment as well as the costs of incremental sustainment and combat development. *(Co-chairs¾ASA (RDA), DCSOPS)*

Sustaining (SS) DCSLOG
Provides resources to sustain operations of the Active Army, ARNG, and USAR, stressing worldwide readiness. Scope embraces Army reserve stocks, industrial preparedness, and central supply, and also internal operations of Army depots and arsenals, procurement of secondary item Army reserves, and transportation. Includes depot materiel maintenance.
Includes measures to assure the quality and timeliness of sustainment resources and to develop and maintain strategic logistics systems, manage weapon systems, provide security assistance, conduct logistics long-range planning, and re-shape Army logistics.
Addresses measures to streamline Army business operations, improve the information management structure, and develop concepts of operations and procedures to further the integration, sharing, standardization, and interoperability of information systems. *(Co-chairs* ASA *(IL&E), DCSLOG)*

Installations (II)—ACSIM
Provides resources to maintain services and infrastructure to support installations as power projection platforms. Plans and programs for installations services that minimize migration of resources into BASOPS. Provides housing for military personnel and their families
.Scope embraces Real Property Maintenance (RPM) funding to maintain facilities and covers measures to comply with environmental laws and the exercise of good steward-ship of natural and cultural resources.
Scope includes installation quality of life programs to ensure soldier morale, retention, readiness, and family support.
Supports measures to establish and maintain information systems, communications, and audio-visual infrastructure to support power projection platforms and logistical sustainment base operations.
Makes sure within assigned responsibilities that programs to maintain a trained and ready force receive appropriate civilian support staffing per statutory guidance. *(Co-chairs¾ASA (I&E), ACSIM)*

Reserve

Army national Guard—CNGB
Provides technical assistance to Title 10 PEGs and monitors actions to integrate into the Total Army program the statutory, Defense, and Army requirements of the Army National Guard.

U.S. Army Reserve (AR)—USAR
Provides technical assistance to Title 10 PEGs and monitors actions to integrate into the Total Army program the statutory, Defense, and Army requirements of U.S. Army Reserve.

12-14. Process and structure

a. Figure 12-4 shows the organizational framework within which the PPBES operates.

b. The PPBES has four formal phases. Three phases are shared with the DOD PPBS—planning, programming, and budgeting. The fourth, execution, applies uniquely to the Army as a distinct system phase. PPBES cycles overlap as do the four phases within each cycle. The sections that follow explain the phases.

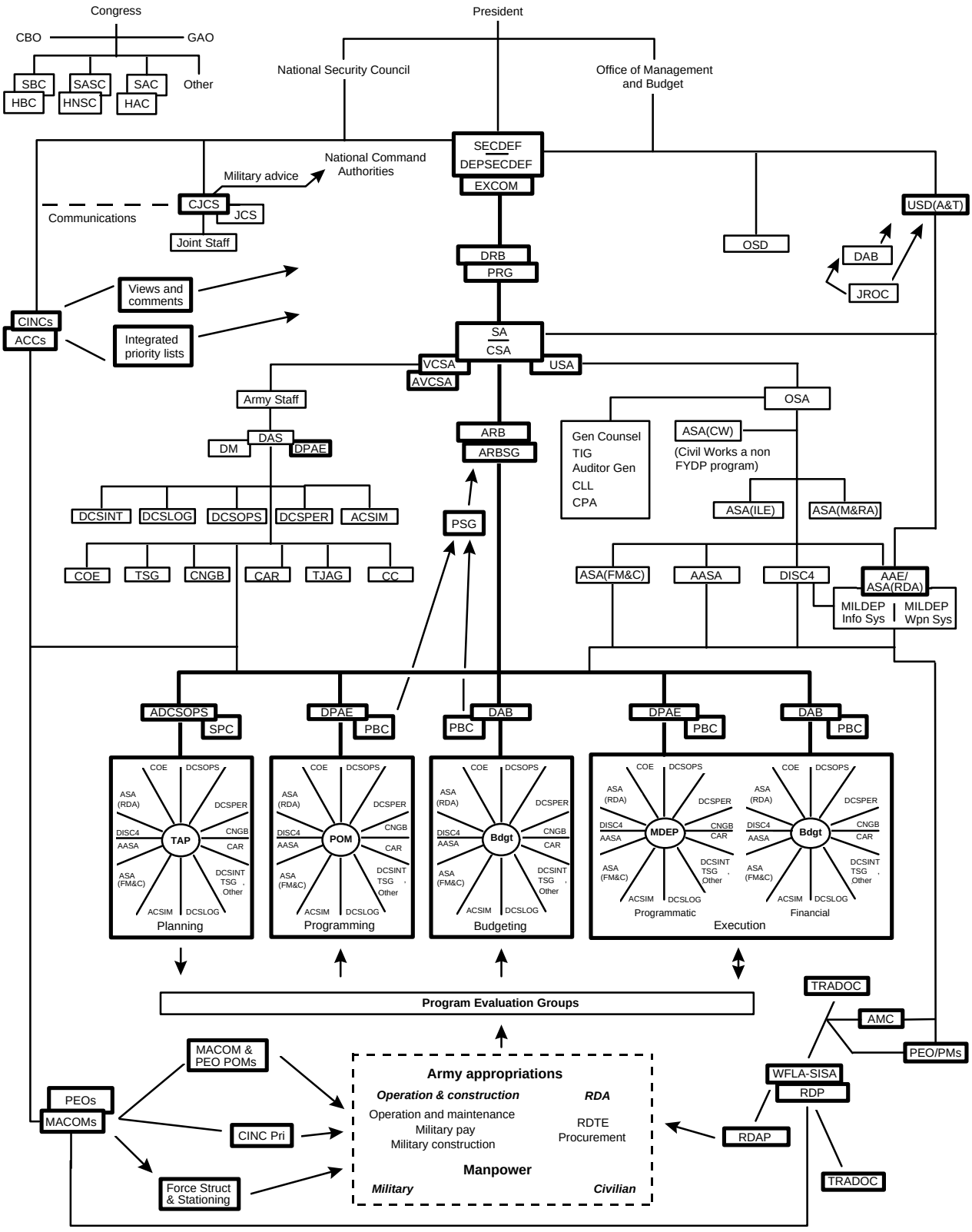


Figure 12-4. PPBES Framework

Section V: Planning Phase

12-15. OSD and joint strategic planning

Drawing on guidance from the NSC, OSD planning and joint strategic planning combine to make up PPBS planning. The planning examines the military posture of the United States in comparison with national security objectives and resource limitations. It develops the national military strategy, and identifies force levels to achieve the strategy. Products of OSD and joint strategic planning provide a framework of requirements, priorities, and risk. The following paragraphs restate portions of the planning discussions of Chapter 1 to provide context for this section.

a. NSC guidance. Two sets of NSC documents bear importantly on the PPBS process. Presidential Decision Directives (PDD) make up one set. A PDD promulgates presidential decisions implementing National security policy and objectives in all areas involving National security. Presidential Review Directives (PRD) make up the second set. A PRD directs studies involving National security policy and directives.

b. Joint strategic planning.

(1) Joint strategic planning examines the global security situation. It develops national military strategy to achieve national security objectives and sets related force requirements. It also prepares strategic and contingency plans, prepares supporting joint logistic and mobility plans, and conducts capability assessments. Joint strategic planning underlies the military advice the Chairman gives to help the President and SECDEF direct the armed forces and formulate Defense policy, programs, and budgets.

(2) Joint strategic planning takes place within the context of the JSPS. Featuring a continuous review of the national military strategy, the JSPS yields five principal products described in the paragraph on JSPS documents and plans, below. The products help the joint community relate strategic planning to both the JOPES and PPBS.

12-16. Joint Strategy Review

The Joint Strategy Review (JSR) lies at the core of the JSPS. The review helps the Joint Staff integrate strategy, operational planning and program assessments. It covers the short-, mid-, and long-range periods, 0-2, 2-10, and 10-20 years in the future. A continuous process, the JSR assesses the global strategic setting for issues affecting the national military strategy. Key judgments appear in the JSR annual report. Provided to the CJCS, Service Chiefs, and CINCs, the report, when approved by the Chairman, becomes guidance for maintaining or revising the NMS and other JSPS products. As needed, the JSR produces a long-range vision paper addressing plausible strategic settings 10 to 20 years in the future.

12-17. JSPS documents and plans

As mentioned, the JSPS generates five products.

a. National Military Strategy. The CJCS approves and issues the NMS. This strategy advises the SECDEF, and after SECDEF review, the President and the NSC on the strategic direction of the armed forces. A standing document, which is changed when needed, the NMS applies to the program years which are 2 to 8 years in the future.

b. Joint Planning Document. The JPD derives from the NMS. Prepared by the Joint Staff with the service chiefs and the CINCs, the document exists as seven stand-alone volumes. Each volume advises the SECDEF on requirements and programming priorities in a specific functional area. Published in September in the odd year, the JPD receives distribution in time to influence the biennial DPG.

c. Joint Strategic Capabilities Plan. The JSCP underlies the capabilities-based military advice the CJCS gives the President and SECDEF. Another standing document, the JSCP, undergoes revision as needed, receiving formal review early each even year. The JSCP covers the 2-year, near term planning period. It gives strategic guidance to the CINCs, JCS members, and heads of Defense agencies. It tasks CINCs to develop major and lesser regional plans to employ the forces that are apportioned to them as a result of completed program and budget actions.

d. Chairman's Program Recommendation. The CPR provides recommendations for developing Service and Defense agency POMs. It compares planning guidance and objectives with current and projected resource profiles from the most recent President's Budget and related FYDP. It recommends changes in programs to correct deficiencies in capabilities and to align resources more closely with plans and requirements. Completed about the same time as the DPG, the document helps the SECDEF make strategic decisions to guide POM development.

e. Chairman's Program Assessment. The CPA checks the balance and capabilities of composite force and support levels recommended by the Service POMs. It compares the recommended capabilities and levels with priorities recommended by U.S. strategic plans and requirements of the CINCs. Completed about 45 days after the Services submit their POMs, the document helps the SECDEF make program decisions ultimately recorded in PDMs that approve Service POMs with specific changes.

12-18. OSD planning products

Two SECDEF documents influence products of the JSPS. One is DPG, the other Contingency Planning Guidance (CPG).

a. Defense Planning Guidance. The SECDEF places responsibility and authority for program execution with the services and other DOD components, but maintains central direction. Serving this central purpose, the DPG presents the SECDEF's strategic plan for developing and employing future forces. Prepared by OSD and published normally in the odd year before POM preparation, the DPG is a principal product of OSD planning. It reflects—

(1) Military advice and information recommended by the CJCS.

(2) Service long-range plans and positions on policy and other matters advanced by service Secretaries.

(3) CINC appraisals of major issues and problems bearing on command missions.

b. Contingency Planning Guidance. The CPG provides the CJCS written policy guidance for preparing and reviewing contingency plans. Focusing NMS and DPG guidance on contingency planning, the CPG bears directly on the JSCP. The SECDEF prepares the document annually in coordination with the Joint Staff. Then, on approval by the President, the SECDEF provides guidance to the Chairman.

12-19. Army planning

Army planning responds to and complements OSD and joint strategic planning. Army planning helps the senior Army leadership determine force requirements and objectives and set priorities. Army planning also provides the basis for positions and comments supporting Army participation in OSD and joint processes, and it lays the planning basis for the Army program.

12-20. Role of long-range planning

Army long-range planning looks 10 to 20 years ahead. In the process, the senior Army leadership creates a vision of the future Army. Fleshing out the design, commands and agencies develop long-range plans in their respective mission and functional areas. Long-range planning guides the midterm vision to develop the force and set program requirements.

12-21. Army Long Range Planning Guidance

a. Scheduled for distribution in the fall of even years, the ALRPG records the vision of the senior Army leadership. It describes a framework for defining future requirements. It then examines national security objectives against a range of potential requirements. Listing underlying conditions likely to hold over the 10-to-20 year period, the ALRPG lays out long-range planning assumptions and objectives.

b. The ALRPG examines political, military, economic, and technological events. The examination identifies trends and determines a range of possible results that bound the future operating environment. It also draws implications for future missions and for achieving required capabilities. The biennial plan helps commands and agencies translate leader vision into long-range plans. Command and agency long-range plans, in turn, help fashion the midterm vision by setting goals and strategies to get the capabilities to meet future requirements. Together, the ALRPG and command and agency long-range plans guide the TAP. In addition, the ALRPG sets the course for requirements determination and force development for the next PPBES cycle.

12-22. Army requirements determination process

The U.S. Army Training and Doctrine Command (TRADOC) manages the Army's requirements determination process. Applying war-fighting concepts for the future and experimentation in TRADOC Battle Labs, the process compares desired joint and Army capabilities in relation to the anticipated threat and known deficiencies. From this comparison the process derives mutually dependent requirements stressing the overall need of the future Army across the spectrum of training, leader development, organization, materiel, and soldiers (DTLOMS).

12-23. Army Modernization Plan

The Army Modernization Plan (AMP) outlines the vision for modernizing the future force and a strategy for near to midterm force development and long-term evolution. The AMP provides a start point for developing the RDAP. Its modernization objectives guide program prioritization at HQDA.

12-24. Army research, development, and acquisition plan

The RDAP is a 15-year plan for developing and producing technologies and materiel to support Army modernization. The plan centers on integrating new doctrine, training, organization, and equipment to develop and field war-fighting capabilities. It converts materiel requirements from an unconstrained planning environment to a balanced RDA program that is both technically and fiscally achievable. Conforming to force structure guidelines, the plan seeks to maximize war-fighting capabilities and supporting infrastructure within resources expected to be available.

a. In December each year, TRADOC provides recommendations to HQDA on material requirements for the RDAP and POM. To arrive at the recommendations, TRADOC applies a process known

as Warfighting Lens Analysis (WFLA). The process takes into account such guidance as the National Military Strategy, OSD DPG, CINC IPLs, the AMP and the TAP. It compares future required capabilities of the total force against the fiscally constrained budgeted force. In doing so it determines force modernization needs, which TRADOC prioritizes according to their contribution to mission accomplishment.

b. AMC performs an analogous function in determining requirements for RDA science and infrastructure (S&I). Supporting warfighting, modernization, and other HQDA high visibility programs, S&I requirements are defined, ordered in priority, and managed by materiel developers' labs, RDE centers, and support activities. Each year during October through February, AMC reviews the requirements jointly with other materiel developers. These include the Corps of Engineers (COE), Medical Research and Materiel Command (MRMC), USASMDC, and Army Research Institute (ARI). The review integrates and sets priorities for requirements and reconciles funding allocations. AMC records the results in the Science and Infrastructure RDA Plan (SIRDAP), which it forwards and briefs to HQDA each February.

12-25. The Army Plan

Linking strategic policy, planning, and programming, the TAP lies central to planning, programming, and budgeting. Strategic policy considerations include the National Security Strategy, the National Military Strategy, and policies set by the senior DOD and Army leadership. Planning considerations derive from the DPG and, as described below, total Army analysis (TAA).

a. The TAP projects operational tasks and capabilities at midrange, or sixth program year, and for the long range 10 years beyond.

b. The TAP provides detailed programming guidance derived from its planning guidance. The TAP gives Army programmers a hierarchical list of programming goals, objectives, and tasks. By reflecting relative resourcing priorities, it also reflects senior leadership decisions. The format for the programming portion of the TAP parallels the title 10 PEG structure covering manning, training, organizing, equipping, sustaining, and installations.

c. The DCSOPS Resource Analysis and Integration Office prepares the TAP each odd year. Incorporating input from field commands, the process proceeds in concert with DPAE, the PEGs, and the HQDA staff. DCSOPS then distributes the approved TAP to Army Component Commanders (ACCs) and MACOMs in time for them to prepare their input to the Army POM.

12-26. Force development and total Army analysis

PPBES planning develops an achievable force structure for America's Army that supports the National Military Strategy. The approach centers on TAA, a computer-aided force developmental process that gets under way about January of the even year. TAA results in a recommended fiscally constrained force which, when approved by the Army leadership, sets the force structure baseline for the POM. TAA is discussed in detail in Chapter 6.

12-27. Command planning and documentation

As discussed in Chapter 6, detailed integration and documentation of the programmed force centers on the management of change (MOC) window. The Army uses this period to update and create MTOE and TDA documents. These documents officially record decisions on missions, requirements for organizations, and authorizations for personnel and equipment. TOE and BOIPs are the source of personnel and equipment requirements for MTOE units.

a. The process begins with the Command Plan (CPLAN) guidance message, released by HQDA (ODCSOPS) at the start of the MOC window. CPLAN guidance sets the focus for the MOC window, establishes documentation priorities and actions, and provides force structure allowances (FSA). MACOM CPLANs reflect the current and projected force structure of each command. CPLANS normally contain only military manpower. After HQDA review, DCSOPS publishes an adjusted Master Force (MFORCE) and an associated civilian annex reflecting the approved plan. The adjusted MFORCE provides the basis for resourcing personnel and equipment in the draft MTOEs and TDAs.

b. The Army uses the Army Authorization Documents System-Redesigned (TAADS-R) system to record changes in MTOE and TDA authorizations that result from changes in unit missions, requirements for organizations, and equipment.

c. The Structure and Manpower Allocation System (SAMAS) serves as the force development database that records the authorized level of manpower and force structure for the Army program and budget.

d. At the close of the MOC window, the Automatic Update Transaction System (AUTS) is run. AUTS compares the CPLAN and MFORCE against the TAADS-R documents. When discrepancies are discovered, the TAADS-R documents are corrected or the MFORCE is adjusted to match TAADS-R.

e. The Structure and Composition System (SACS), in conjunction with Force Builder (a management database integration system), produces the Army's time-phased demands for personnel and

equipment over the current budget and program years.

12-28. Operational planning link

Operational planning addresses the 0-2 year short-range planning period. It takes place under JOPES and the counterpart Army Mobilization and Operations Planning and Execution System (AMOPES). Through JOPES, the CINCs and their Service component commands develop concept plans (CONPLAN) and operation plans (OPLANs). Capabilities based, the plans employ the current force to carry out military tasks assigned in the JSCP. Plan preparation and review return information about shortfalls and limiting factors for consideration in current planning, programming, and budgeting.

a. Missions and Tasks. The JSCP carries out the NMS through unified combatant command OPLANs. Its accompanying intelligence estimate assesses potential threats and their impact on available U.S. forces. Based on the assessment, the document assigns missions and planning tasks to the CINCs. It also apportions the combat forces expected to be available. Annexes amplify guidance, capabilities, and tasks in specified functional areas.

b. OPLAN development and review. HQDA provides ACCs, supporting MACOMs, and reserve components additional guidance through AMOPES. AMOPES provides planning assumptions, policy, and procedures.

(1) Time-phased Force Deployment Data (TPFDD) for ACCs specify arrival priorities for force augmentation, resupply, and troop replacement. TPFDD review, and later, logistics and transportation assessments help refine the priorities to be consistent with CINC OPLANs.

(2) In July (odd year), the CINCs submit their OPLANs for final JCS review and approval. The OPLANs provide a basis for CINC IPLs, which influence program development.

Section VI: Programming Phase

12-29. Army programming

a. Army programming helps the senior Army leadership distribute resources to support Army roles and missions. Programming translates planning decisions, OSD programming guidance, and Congressional guidance into a comprehensive allocation of forces, manpower, and funds. In the process, programming integrates and balances centrally managed programs for manpower; operations; research, development, and acquisition; and stationing and construction. Concurrently, programming incorporates requirements stated by MACOMs and PEOs for manpower, operation and maintenance, housing, and construction.

b. The POM presents the Army's proposal for a balanced allocation of its resources within specified constraints. OSD reviews the POM and issues a PDM to reflect SECDEF program decisions. The program, as approved by the SECDEF, provides the basis for preparing Army budget estimates. During execution, program reviews help HQDA, MACOMs, PEOs, and other operating agencies make sure that financial allocations support approved program objectives.

12-30. Army Program Guidance Memorandum

The APGM augments programming guidance given in the TAP. It transmits programming changes and, as required, clarifies and expands programming guidance originally published in the TAP. HQDA publishes the APGM at the beginning of preparation of the HQDA POM.

12-31. Program development

Army program development formally gets under way when HQDA publishes the TAP and its related APGM in the fall of the odd year. Reflecting affordability analyses from the FFR process, the TAP locks the preliminary program force and stabilizes manpower and key equipment requirements for program development. The provisions of the TAP apply to HQDA, MACOMs, PEOs, and other operating agencies.

12-32. Program development process

Using the MDEP as a building block, program development refines and extends the program of the previous POM Cycle. Typically, under the biennial cycle, program development by MACOMs, PEOs, and other operating agencies gets under way early in the odd year. The resource position reflected in the FYDP for the President's Budget and related PBG serve as the base for developing program requirements. Then, on a schedule set by HQDA, the MACOMs, PEOs, and other operating agencies prepare and submit their POMs to HQDA.

a. HQDA agencies, guided by the APGM, collect and review program information. They study the existing program considering new requirements, determine program needs, and then begin preparing their functional programs. Under DPAE lead, the agencies incorporate program requirements into POM alternatives directed and constructed to achieve programmatic balance. Key considerations include—

(1) Resource assessments and new requirements submitted by MACOMs, PEOs, and other operating agencies. (Information for the program

years in the RDAP provides RDA program input, serving a function comparable to agency POMs.)

(2) CINC IPLs and ACC-developed requirements supporting them.

(3) The DPG.

(4) Final Army fiscal guidance provided by OSD toward the end of program development.

b. Proponent agency PEGs, guided by DPAE, build the Army program using a strategy approved by the SA and CSA. The PEGs review MDEP resources from a functional or program perspective. The PEG also reviews command and agency zero-sum realignments, which reallocate programmed resources to meet existing shortfalls and changed requirements. The purpose of the review is to make sure that proposed reallocations—

(1) Conform to legal restrictions and Army policy and priorities.

(2) Avoid imprudently high risk, given recent Congressional action.

(3) Do not cause a mandatory program or subprogram to become unexecutable.

12-33. Army program reviews

a. Beginning early in the process until its submission to OSD, the maturing program undergoes periodic review by the senior Army leadership. Along the way, the PBC, which oversees the POM build, reviews and adjusts program issues and sets preliminary positions. As appropriate, the PBC returns the results of its deliberations to the Army Staff or Secretariat for action or passes the results to the ARBSG or ARB for review or approval.

b. The Army Commanders' Conference scheduled at the start of HQDA's program process provides field commanders an early chance to influence program alternatives.

12-34. POM preparation and submission

a. HQDA prepares the POM in the spring of each even year. The POM reflects program actions fleshed out by the HQDA staff with DPAE. It also documents the program decision of the SA and CSA. Submitted to OSD, the POM presents the Army program for its review.

b. Congress requires the President to submit annual budgets under the biennial cycle, however, has led OSD to prepare a POM update in the off-cycle year.

(1) Typically, the off-cycle update re-looks at the previous biennial POM, now minus one year. It revises the program to keep its five remaining years consistent with original decisions and strategy. It also adjusts to program decisions reflected in the PDM and budget decisions reflected in PBDs.

(2) An important aspect of the POM update centers on program resource allocations for the upcoming (or second) budget year. The aim is to make the allocations as correct as possible in terms of program balance and executability. By re-examining the POM, the task of making program resource changes shifts from budget analysts to program analysts.

12-35. OSD program review

Also known as the summer issue cycle, OSD program review begins soon after POM submission and continues normally until mid to late summer. The review features program review proposals that recommend alternatives to POM-submitted programs.

a. Issues arise early in the process. They develop from review by members of the DRB and nonmember Assistant Secretaries of Defense who manage specific programs.

b. Issues divide into three tiers, which determine their treatment. Tier I topics concern such matters as CINC issues, risk, modernization, and readiness. The DRB deliberates these issues in a series of meetings from May through August. Tier II topics become individual issue papers that receive staffing within OSD and with the Services and Defense agencies. Tier III topics become items for later budget review sent to the DOD Comptroller with possible options.

12-36. Program Decision Memorandum

Typically, in mid to late summer, after the DRB has debated all outstanding issues, the DEPSECDEF signs the PDM. The PDM approves the POM with specific changes as the program basis for Army budget estimates to be submitted to OSD.

Section VII: Budgeting Phase

12-37. Budget formulation and justification

Army budgeting proceeds in three stages— formulation, justification, and execution. The budgeting phase addresses budget formulation and justification.

12-38. Formulation

Budget formulation requires developing detailed fund estimates to support Army plans and programs. The task produces Army budget estimates that are ultimately incorporated in the President's Budget. The process includes a joint analytical review of the Army's BES by OSD and the OMB. During the review, OSD issues PBDs signed by the SECDEF or DEPSECDEF. Budget formulation concludes with the transmission to Congress of the approved DOD budget as part of the President's Budget.

12-39. Transition from the program

On receiving the PDM, the DPAE, with the Army Staff and Secretariat, adjusts the program. The DPAE then forwards the result to the DAB. Led by the DAB and using the POM as a baseline, HQDA formulates the BES, which covers the prior year, the current year, and the two budget years. (For off-cycle updates, the BES covers the second year of the original budget submission.)

12-40. Incorporating command and agency budget data

a. During MACOM and PEO POM development, HQDA solicits from commands and agencies the data later needed to prepare budget estimates. Used in support of the BES, MACOM budget data mainly affects the 2 budget years. This is because changes here make a difference in the request that will go to Congress as the President's Budget.

b. Budget processes paralleling those for developing the BES apply to appropriate MACOMs for RDTE, procurement, and military construction resources. They apply also to resources required by the ARNG and USAR. The results of another process affecting final estimates are those of acquisition reviews held in the spring and summer when materiel development and procurement programs undergo evaluation. The reviews consider recent execution experience in pricing and projected program changes. Major issues failing to receive required resources at these levels go to the PBC and ARB for review and to the SA and CSA for decision.

12-41. Funding designated support functions: the Army Working Capital Fund

In relatively recent initiatives, OSD changed the way DOD components program and budget for designated support functions. To increase cost visibility, DOD adopted a financial management system based on cost per output or unit cost. DOD then installed a business operations fund to further improve tools available to managers of DOD support functions. Its successor, the Army Working Capital Fund (AWCF) embraces both revolving funds (industrial and stock) and certain appropriated-fund activities (including finance and accounting services and commissary operations).

a. The AWCF provides a financial framework within which designated support organizations operate. It is a business-type system, accounting for total costs and relating them to outputs produced. Full cost visibility for both providers (AWCF businesses) and their customers gives managers information on the cost implications of their decisions. As in any business, the costs include both operating and capital (investment-type) items.

b. Operating costs include total costs of operating the support activity (for example, personnel, travel, transportation, supplies and materials) as well as depreciation on capital equipment. Capital costs include investment items costing over $100,000 and having a life expectancy greater than two years (for example, equipment; software; hardware; minor construction; reliability, maintainability and supportability modifications).

c. Revolving fund activities in the AWCF recover their costs through stabilized prices charged to customers. These rates remain constant throughout a fiscal year to protect customers from unforeseen inflationary pressures and other cost uncertainties. The fund has the ability to absorb those unforeseen costs within a fiscal year (that is, incur a loss) and then must recover any losses (or return any gains) in the subsequent year's rate structure.

12-42. Preparing the Budget Estimates Submission

Budget formulation converts the first two years of the program approved by the PDM into Army budget estimates. Work proceeds per administrative instructions issued by ASA(FM&C) that supplement a DOD budget guidance manual and OSD budget-call memorandum.

a. Through appropriation sponsors, the DAB—

(1) Develops Army budget estimates from POM dollar and manpower levels as adjusted by the PDM.

(2) Revises the estimates to incorporate changes determined through review of MACOM input and centralized programs for the RDTE, procurement, construction, and military personnel appropriations.

(3) Adjusts budget estimates to conform to changes required by pending authorization and appropriation legislation.

b. Beginning in May, for both the POM year and off-cycle odd year, appropriation sponsors review and mark up estimates prepared for each appropriation. A major objective is to maintain consistency with the program. Appropriation sponsors brief the results of staff decisions arising from the review to the PBC when presenting appropriation budgets for approval. PEG chairmen follow with a programmatic assessment of the budget.

c. During the process, the DAB chairs the PBC. The PBC reviews the appropriation sponsors' "scrub" of their budget estimates to make sure the estimates reflect SA and CSA guidance. It resolves issues that arise during formulation and discusses the PEGs' programmatic assessment as well as considering alternatives to appropriation sponsor proposals. At the end, the DAB aggregates the separate

estimates, including those of the ARNG and USAR, into a single Army budget.

12-43. Review and approval

The PBC presents summary budget estimates to the ARB for review and final decision by the SA and CSA. Once proposed estimates receive approval, appropriation sponsors, aided by managers for program and performance, prepare detailed justification books and furnish DPAE update tapes reflecting the approved BES. The DAB prepares the executive summary of the budget and a forwarding letter from the SA to the SECDEF. Separately, the DAB submits the justification books by appropriation to OSD, and the DPAE submits an update tape for the FYDP. The combined events constitute the Army's BES to OSD.

12-44. OSD and OMB budget review

Members of OSD and OMB jointly review the BES. Also called the fall review, this joint review focuses on proper pricing, reasonableness, and executability.

a. Appropriation and program sponsors provide appropriation and program overviews at OSD and OMB hearings and respond to questions on the budget submission. Based on the hearings and discussions with Army budget analysts, OSD analysts draft PBDs for review and coordination.

b. PBDs usually present at least one alternative to the budget area addressed. An alternative poses dollar and manpower increases or decreases. They may issue from errors or from the strength of the justification. Sometimes they are motivated by cost savings or the need to reflect changes in policy. Sometimes they result from analytical disagreement. Whatever the reason, the Army analyzes each PBD and responds to OSD, either agreeing or disagreeing with the OSD position.

c. ASA(FM&C) meets with the DOD Comptroller at periodic Service financial manager meetings. At these meetings, toward the end of the PBD cycle, ASA(FM&C) discusses financial management (FM) direct appeals. The Joint Staff coordinates major budget issues (MBI) affecting a combatant command to get CINC comments and, if appropriate, CINC support. At the end of the PBD process, the SA and CSA meet with the SECDEF and DEPSECDEF on MBIs. The SECDEF decides each issue and, if necessary, meets with the President to request fund restoration or to recommend other action.

d. In December, at the end of the PBD cycle, OSD normally issues a final PBD or OSD memorandum incorporating any changes from MBI deliberations, thus completing the PBD process. OSD then issues each service its final TOA and manpower controls. For the Army, the DAB incorporates the final changes in the developing President's Budget while the DPAE uses the information to adjust or revalidate the program.

e. The DAB supervises the PBD and MBI processes and throughout the review—

(1) Maintains coordination between the DOD Comptroller and HQDA.

(2) Makes sure that adjustments to fiscal controls are correct on all records for each PBD. (Verification of corresponding manpower controls is an ASA(M&RA) responsibility.)

(3) Gives special attention to any PBD under appeal since the DEPSECDEF may revise the pending adjustments on review.

12-45. President's Budget

After implementing the final resource distribution at the budget activity and object class level, HQDA sends the information to OSD. OSD and OMB forward the information as the Army's portion of the Defense budget, which OMB incorporates into the President's Budget.

a. The President's Budget covers prior year obligations and updated resource estimates for the current year. It also covers TOA estimates for the budget year and budget year plus one.

b. Budget analysts translate decisions into program changes, posting PEs, MDEPs, and MACOM distributions, as required. Managers for program and performance update their internal systems.

c. The DAB forwards data base update tapes to the DPAE, and the DPAE updates the database to produce the President's Budget FYDP. (As mentioned, a 1987 statutory change (10 USC 114a) requires DOD to submit a President's Budget FYDP to Congress each year.)

12-46. Justification

Budget justification involves defending budget requests for the Army's various programs and appropriations before Congress. The SA and CSA testify in support of the Army's budget request before the Senate Armed Services Committee (SASC) and the HNSC (the authorizations committees), and the HAC and SAC. After review, the Senate and House vote on the bills of their respective committees. On final passage, Congress forwards the approved authorization and appropriations bills to the President, who signs each bill.

12-47. Budget hearings

As mentioned, the Army presents and defends its portion of the President's program before Congress. The process proceeds formally and informally under the staff supervision of the Chief of Legislative Liaison and ASA(FM&C).

a. After the President formally submits the budget, the Army provides detailed budget justification to the authorizations and appropriations committees. First, however, appropriation sponsors will have prepared material in Army justification books to conform with decisions of the President and SECDEF and congressional requirements for formats and supporting information. Justification books undergo internal Army review under ASA(FM&C) and are then sent to OSD for final review.

b. The SASC and HNSC conduct authorization hearings for the various programs and appropriations. Concurrently, the Army's budget request goes before the House and Senate Appropriation Committees (HAC and SAC, respectively). In these hearings, the SA and the CSA normally testify first. Then, helped by ASA(FM&C) and the Chief of Legislative Liaison, appropriation sponsors present and defend the details of the budget.

12-48. Legislative approval and enactment

When the Congressional sub-committees complete their review, the Senate and House vote on the committee bills. Differences between the Senate and House versions get resolved via a joint conference. Budget justification ends when the President signs the authorization and appropriation bills for the coming fiscal year. Enacted into law, Army appropriations provide the legal authority to incur obligations and make payments.

12-49. Continuing resolution authority

When Congress fails to pass an appropriation by the end of September, it may pass a continuing resolution. Continuing resolution authority (CRA) derives from emergency legislation that authorizes the funding of Government operations in the absence of appropriations. A temporary measure, the CRA usually restricts funding to the prior year level and prohibits new initiatives. HQDA separately publishes specific policy on how the Army will operate under the CRA. Failure to pass either an appropriation or CRA could result in a temporary close down of Government operations. Normally, however, until an appropriation or CRA is enacted, DOD continues minimum essential operations based on the requirements of national defense.

Section IX: Execution Phase

12-50. Execution

During execution, the Army manages and accounts for funds and manpower to carry out approved programs. It checks how well HQDA, MACOMs, PEOs, and other operating agencies use allocated resources to carry out program objectives. Through the Army Joint Reconciliation Program, it strengthens financial accounting and management to make sure financial reports accurately reflect the results of budget execution. The Army, OSD and Congress apply execution feedback to adjust resource requirements.

12-51. Financial management

a. Budget execution applies the funds appropriated by Congress to carry out authorized programs. Applying Congressionally appropriated funds entails apportioning, allocating, and allotting the funds; obligating and disbursing them; and associated reporting and review. The procedure also entails performing in process evaluations and making necessary course corrections to reallocate resources to meet the changing requirements that develop during execution.

b. The joint reconciliation program applies the skills of those responsible for various aspects of financial management. The skills include those of accountants, budget and program analysts, contracting professionals, logisticians, and internal review auditors. The program applies the combined skills to verify the validity of unliquidated obligations, contractor work in process, billing status, and the continuing need for goods and services not yet delivered. The program achieves dollar savings by identifying and canceling obligations for goods and services no longer needed or duplicative. The program also reconciles current appropriations to verify the correctness of amounts obligated. In addition, the program assures the liquidation of appropriations to be canceled by the end of the fiscal year.

c. Budget execution includes financing unbudgeted requirements that result from changed conditions unforeseen when submitting the budget and having higher priority than the requirements from which funds are diverted (reprogramming).

12-52. Funds control

Several events occur before the Army can execute its programs for a new fiscal year under a new appropriations act. First, OMB apportions the appropriations, which provides obligation/budget authority. The Department of the Treasury then issues a Treasury Warrant providing cash or disbursing authority. Finally, the DOD Comptroller releases program authority.

a. Apportionment. An apportionment distributes funds by making specific amounts available for obligation.

b. Program release. The DOD Comptroller releases the program to the Army for execution. For investment accounts, HQDA releases program and budget authority in equal amounts. The program release for the operating accounts, OMA and MILPERS, are contained in an obligation authority

(OA) letter issued by the DOD Comptroller. A separate OA letter is issued for Family Housing, Army (Operations) (AFHO).

12-53. Allocation, obligation, and reconciliations

Guided by appropriation and fund sponsors at HQDA, ASA(FM&C) allocates apportioned funds to operating agencies. Operating agencies, in turn, make funds available to subordinate commands and installations by an allotment. Allotments authorize users to place orders and award contracts for products and services to carry out approved programs. Installations obligate funds as orders are placed and contracts awarded. They make payments as materiel is delivered or as services are performed. Finally, installations, MACOMs, and appropriation sponsors conduct joint reconciliations. Reconciliations make sure financial statements and reports accurately represent the results of the apportionment, allocation, and allotment program. Reconciliations also make sure payments align properly with supporting obligations.

12-54. Changes from the President's Budget

a. After appropriations are enacted, appropriation sponsors and the Army Budget Office review the legislation to determine changes. Changes include Congressional additions, denial of programs, or changes to the funding level as submitted in the budget. Changes also include identification of Congressional special interest items, undistributed reductions, and any language relating to execution of the programs.

b. Appropriation sponsors determine how to spread any undistributed reductions. In addition, they may also spread some unapplied reductions in the appropriations act, which are distributed to the services during the PBD cycle. For those reasons, actual funding levels may not be finally set until several months into the new fiscal year. This is so even if the appropriations act is passed before October 1. The ultimate funding level for individual programs typically falls short of the level shown in joint conference reports.

12-55. Funding letters for OMA and AFHO

HQDA issues funding letters to operating agencies for both OMA and AFHO. ARNG and USAR issue funding letters for their operation and maintenance appropriations. The letters indicate funded programs and give guidance on how they should be executed. They also provide an audit trail from the resource position in the President's Budget to the revised, appropriated position. The OMA funding letter outlines the funding posture and goals set by the senior Army leadership for command execution. Preparing and issuing the funding letter takes about 30 days after the appropriation act is passed.

12-56. Revised approved program for RDTE

HQDA issues a Revised Approved Program (RAP) for the RDTE appropriation, replacing a tentative initial program used as a start point. The RAP shows congressional changes at both PE and project level. In addition, the RAP spreads general reductions at the project level. It includes the amounts set aside for the Small Business Innovation Research Program (SBIR) and the Small Business Technology Transfer Pilot Program (STTR) as specified in Public Law 102-564. The RAP also includes amounts withheld by the DOD Comptroller and DA and provides language on Congressional restrictions as well as Congressional special interest items. Because of the level of detail and the extensive information included, the RAP remains unavailable until several months after the appropriations act is enacted.

12-57. Financing unbudgeted requirements

Congress recognizes the need for flexibility during budget execution to meet unforeseen requirements or changes in operating conditions, including those to address minor, fact-of-life financial changes. Congress accepts that rigid adherence to program purposes and amounts originally budgeted and approved would jeopardize businesslike performance. Thus, within stated restrictions and specified dollar thresholds, Congress allows Federal agencies to reprogram existing funds within an appropriation to finance unfunded requirements. Typically, reprogramming diverts funds from undertakings whose requirements have lower priority than the new requirements being financed.

a. Congressional language on reprogramming, which varies by appropriation, controls the Army's ability to move the program within appropriations (below threshold reprogramming). Moving the program in excess of specified limits requires congressional approval. Moving amounts between appropriations always requires a formal reprogramming request, citing transfer authority included in the appropriation.

b. Providing that reprogramming authority is not required, another way to finance unfunded requirements is to apply obligation authority harvested from joint reconciliations. This technique uses unexpired funds originally obligated against a contract or order but identified as excess to the need and subsequently deobligated. Reutilizing funds in this way gives allotment holders greater leverage in executing the budget and increases the buying power of the Army's financial resources.

c. FY 91 marked the first year of Omnibus Reprogramming, which, except for construction accounts, consolidated all DOD reprogramming actions into one very large reprogramming action that identified all DOD reprogramming requirements at

one time. This allowed the Congress and DOD to set priorities for limited funding and make smarter decisions.

12-58. Program performance and review

MACOMs, PEOs, and other operating agencies carry out the approved program within manpower and funds provided. They review budget execution, account for and report on use of allocated funds by appropriation and MDEP. They also account for use of allocated manpower by UIC. The manpower and financial data obtained help MACOMs and agencies develop future requirements.

12-59. Checking program performance

a. Quarterly Army Performance Review. The quarterly Army Performance Review (QAPR) helps fulfill the need for review and analysis during the PPBES execution phase. It presents a corporate view of performance as a mechanism and forum for assessing mission accomplishment. The QAPR centers on major programs, systems, projects, and issues of major interest to the senior Army leadership, OSD and Congress.

b. Review of selected Army systems. A means to check system program performance which includes milestone reviews of designated acquisition programs by the Army Systems Acquisition and Review Council conducted by ASA(RDA) and the VCSA. Another means includes milestone and in process reviews (IPRs) of designated automated information systems by the MAISRC conducted by DISC4 and the ASA(RDA).

c. Oversight of nonappropriated funds. Applying various methods, the ASA(FM&C) also oversees nonappropriated funds. One method is by participating on the Morale, Welfare, and Recreation (MWR) Board of Directors. The Deputy Assistant Secretary of the Army (FM&C) is a voting member of the MWR Executive Committee. In addition, the Deputy Assistant Secretary of the Army (FM&C) chairs the Audit Committee, and the Deputy Assistant Secretary of the Army for Resource Analysis and Business Practices serves on the Investment Subcommittee. Through these positions the ASA(FM&C) influences virtually all aspects of MWR financial policy. As part of the responsibility of overseeing nonappropriated funds, the ASA(FM&C) presents nonappropriated funds issues to the SA and CSA during the QAPR.

Section X: Summary

Resourcing the force and its support structure engages HQDA, with the full participation of the MACOMs, PEOs, and other operating agencies. The task requires the participants, through the PPBES, to plan, program, and budget required manpower and dollars and then to manage the resources ultimately approved. The aim is to provide the CINCs of the unified combatant commands the best mix of Army forces, equipment, and support attainable within available resources.

Chapter 13
Force Readiness

Section I: Introduction

13-1. Potential effects of change on readiness

Military capability is a statement of a type unit's ability to perform its doctrinal combat mission. Unit capabilities are intended to increase as organizations are modernized. However, as an organization transitions from a lower to a higher level of capability during the modernization and reorganization process, readiness may be adversely affected during transition. The transition period must be clearly defined, effectively managed, and accurately reported.

13-2. Minimizing adverse effects

One of the force integration goals is to maximize capabilities while minimizing adverse effects on readiness. To achieve this goal, the focus of readiness management at all force levels should be on properly structured, equipped, manned, trained, sustained, stationed, and funded organizations.

Section II: Readiness Management

13-3. Force readiness

a. Purpose and Scope. Force readiness is one of the components of military capability. It is a strategic management goal and a priority for force improvements. It requires that forces, organizations, units, weapon systems, and equipment have the ability to operate within their operational design parameters. Force readiness requires the total force to man, equip, and train organizations in peacetime while concurrently preparing to mobilize, deploy, fight, sustain, redeploy and demobilize forces in war.

b. Readiness costs and trade-offs.

(1) Force readiness is highly situational. It is composed of a complex group of interrelated factors that cannot be accurately measured by any one means. This makes the measuring of readiness a difficult task because it is made up of many tangible and intangible factors, some objective (quantifiable) and some subjective (judgmental). In a peacetime environment, the only measure of return on investment that the services can show is some level of force readiness, as deduced from analytical tools and other indicators.

(2) Current force readiness must compete with other investment program needs such as R&D, procurement, and construction programs. It must also satisfy current readiness needs such as training, quality of life, repair parts, depot maintenance programs, and APS requirements.

(3) Incremental costs of readiness increase as higher levels of readiness are approached. At unit level, sustaining high readiness is cost-intensive due to the increased demands for repair parts and supplies and training costs (ammunition and fuel). Because of the incremental costs of readiness and the requirements of contingency plans, the Army maintains some units at a higher level of resources and readiness than others. This stratification of readiness permits the allocation of personnel, materiel, and dollars to achieve the greatest return on investment while incurring acceptable risk wherever possible.

c. Force readiness factors. Factors impacting readiness are both objective and subjective. The status of personnel and equipment is objective. Morale, cohesion, or the quality of leadership are subjective. The status of unit training is based on objective standards, but it requires a degree of subjectivity because of possible constraints on an organization to train for some mission-essential tasks in peacetime. The following factors should be considered:

(1) Unit status (of many units; aggregate judgment).

(2) Weapon systems capability (both qualitative and quantitative comparisons).

(3) Availability and quality of facilities (judgmental).

(4) Availability of supplies (quantitative inventory; judgmental requirements).

(5) Relationships with allies (judgmental)

(6) Strategic intelligence capability (qualitative and quantitative).

(7) Unit cohesion, operational readiness, and training (judgmental with some objective data).

(8) Civilian work force availability, experience, and ability to sustain the force (judgmental).

(9) Quality of soldier and family support services (judgmental).

(10) Civilian and military airlift and sealift capability (quantitative inventory; judgmental requirements).

(11) Civilian and military ground transportation capability (qualitative inventory; judgmental requirements).

(12) Line of communications preparation (quantitative inventory; judgmental requirements and locations).

(13) Availability of prestocked equipment (quantitative inventory; judgmental requirements).

(14) Mobilization capability (highly judgmental until executed).

(15) Availability of manpower for military and industry (highly judgmental).

(16) Capability to receive, process, and transport forces in theater (highly judgmental).

(17) Quality of senior leadership, strategic planning, and decision making (qualitative judgment).

(18) Capability of the threat (qualitative and quantitative comparison; largely judgmental).

(19) Quality and morale of personnel (judgmental).

13-4. Unit readiness

a. Readiness prioritization.

(1) The Department of the Army Master Priority List (DAMPL) prioritizes organizations according to deployability dates to sequence distribution of equipment and personnel. This "first to fight; first resourced" policy ensures that early deploying units are resourced first at a higher level than later deploying units. It allows shortages where minimum risk and maximum flexibility exist.

(2) Based upon the DAMPL, units are assigned an authorized level of organization (ALO) commensurate with their primary mission and required availability date, based on contingency plans. The ALO of an organization determines allocation of manpower spaces and the distribution of personnel. It is a statement of total resourcing. It correlates to operating tempo (OPTEMPO) and operation and maintenance funding.

b. Unit status reporting.

(1) Every organization reports overall status and the status of four measured resource areas . The category level (C-1 through C-5) indicates the degree to which personnel and equipment requirements, maintenance, and training standards have been achieved. Category levels do not project a unit's combat readiness once committed to action. Rather, this status is measured against the resources and training required to undertake the wartime mission for which the unit is organized or designed. The five calculated category levels are—

(*a*) *C-1.* The unit possesses the required resources and is trained to undertake the full wartime mission for which it is organized or designed.

(*b*) *C-2.* The unit possesses the resources and has accomplished the training necessary to undertake the bulk of the wartime mission for which it is organized or designed.

(*c*) *C-3.* The unit possesses the resources and has accomplished the training necessary to undertake the major portions of the wartime mission for which it is organized or designed.

(*d*) *C-4.* The unit requires additional resources and/or training to undertake its wartime mission, but if the situation dictates, it may be directed to undertake portions of its wartime mission with resources on hand.

(*e*) *C-5.* The unit is undergoing a service-directed resource action and is not prepared, at this time, to undertake wartime missions for which it is organized or designed.

(2) Normally the overall unit category level will be identical to the lowest level recorded in any of the unit's measured resource areas of personnel, equipment on hand, equipment serviceability, and training. The overall unit category level may be upgraded or downgraded by the unit commander based on his judgment and experience; however, the computed status of each measured resource area is reported as calculated.

c. Unit equipment requirements and authorizations. In a unit's TOE and MTOE, equipment requirements and authorizations are categorized by equipment readiness codes (ERCs) that specify, by line item number (LIN), the relation of a specific item of equipment to the organization's mission.

(1) ERC "A" LINs are primary weapons or equipment essential to mission accomplishment.

(2) ERC "B" LINs include auxiliary equipment that supports or replaces inoperative primary items.

(3) ERC "C" LINs are administrative support equipment.

(4) Pacing items (ERC "P") are those ERC "A" items that define the organization's doctrinal capability (for examples, tanks, infantry fighting vehicles, and helicopters).

Section III: Measuring Unit Status

13-5. A combat readiness measurement

Unit status reflects the combat readiness condition of a unit at a given point in time. As noted earlier, this status is reported in the areas of personnel, equipment on hand, equipment serviceability, and training. It is calculated by comparing the mission essential wartime requirements specified in the unit authorization document (MTOE) for personnel and equipment to assets on hand.

13-6. Chairman's Readiness System

a. The Chairman's Readiness System (CRS) was implemented in the fall of 1994. It was designed to provide the CJCS the information necessary to fulfill his 10 USC responsibilities. The system applies to the Joint Staff, services, unified combatant commands, and the Department of Defense combat support agencies. The system is designed to assess both unit and joint readiness. Unit readiness focuses

on people, training, and equipment. Joint readiness assesses against key functional areas that enable the CINCs to integrate and synchronize forces. The CRS is designed to provide a current assessment of readiness and systematic analysis of future capabilities and requirements. Until recently, readiness was defined as the capability of a unit to accomplish the mission for which it was designed. Readiness was Service oriented, with no consideration given to requirements to operate as a integral part of a joint or combined multinational force.

b. The Chairman of the Joint Chiefs (CJCS) has redefined readiness in terms of the three levels of war. The strategic level is the level at which the Nation determines national security objectives. The operational level is the level at which campaigns and major operations are planned, conducted, and sustained. The tactical level is the level at which the battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces.

c. The traditional way of looking at readiness by the services focused only on the tactical level of war. The CRS includes the definition and delineation of responsibility for readiness at all three levels of war.

d. The CJCS is responsible for strategic level of readiness of the Armed Forces to fight and meet the demands of the NMS. Readiness at this level is defined as the synthesis of readiness at the operational and tactical levels. It focuses on the broad functional areas such as intelligence and mobility.

e. The operational level of readiness is the responsibility of the CINCs, and considers the joint perspective. Joint readiness is defined as the CINC's ability to integrate and synchronize ready combat and support forces in order to execute his assigned mission.

f. Readiness at the tactical level remains the primary responsibility of the Services. Unit readiness is defined as the ability to provide the capabilities required by CINC's to execute their assigned missions.

g. These definitions are considered key because they delineate the responsibilities of the CJCS, service chiefs, and CINCs in maintaining readiness.

h. The CRS provides the Chairman and the other members of the JCS a current focus and macro-level assessment of the military's readiness to fight and meet the demands of the National Military Strategy as assessed by the CINCs, services and combat support agencies. The CRS consists of the Joint Monthly Readiness Review (JMRR), Joint Warfighting Capability Assessments (JWCA), established programs, and frequent communications with the INCs. It is designed to assess both current and future readiness.

13-7. Army readiness system

a. Unit status reporting system. The unit status report (USR) provides the status of Army units to the JCS and NCA as part of the Joint Chiefs of Staff Status of Resources and Training System (SORTS). The USR is used internal to the Army as a management tool at all force levels to identify and assess readiness conditions and trends affecting organizations. These include factors that degrade unit status; differences between mission essential wartime requirements and assets on hand; and resource allocation requirements

b. Use of the USR.

(1) The USR provides information to MACOM commanders that identifies units not attaining category levels equal to their ALO. The USR gives the commander at any level a finite measurement of his unit's status and evolution over time. The commander's comments are used to highlight situations where special attention, intensive management, or higher echelon command involvement is needed. It also allows management-by-exception in correcting problems.

(2) Commanders at all levels above the reporting unit use unit status reporting as one of many management tools to determine how effectively subordinate commanders are using available resources. Division, separate brigade, and regiment commanders submit a composite unit status report that summarizes the status of their unit based on the USR data submitted by subordinate commands. Commanders submitting a report (regular or composite) may include narrative comments to highlight areas of concern.

c. Mission Accomplishment Estimate. The Mission Accomplishment Estimate (MAE) is the commander's subjective assessment of his unit's ability to execute that portion of his wartime mission that it would be expected to perform if alerted/committed within 72 hours of the "as of" date of the USR (generally the 15th of each month). This estimate is expressed as a percentage and is based on evaluation of the computed resource levels and other factors known to the commander (such as morale, mobility, current operations tempo) that could enhance or hinder the unit's ability to respond to alert/commitment notification.

Section IV: Planning and Executing Organizational Change

13-8. Organizations in transition

As previously noted, organizations that are activating, converting, or reorganizing are undergoing a series of disruptive and turbulent activities. The process of structuring, equipping, manning, training, deploying, and stationing an organization or its subordinate units requires that leaders focus on the execution of change. The time allocated to accomplish activation, conversion, or reorganization starts when organization capability and readiness are first affected. It continues until the transition is complete and the unit is rated C-3 or higher in personnel, equipment on hand, equipment readiness, and training.

13-9. Transition period activities

a. Events that define the transition period are those in which capability and readiness degradation and enhancement are quantifiable. Turn-in of major end items identifies the start of transition. This may be incident to new equipment hand-off or inactivation of subordinate units as part of restructuring. Completion of a training evaluation allows mission-essential tasks to be assessed and terminates the transition period.

b. Readiness goals, in terms of minimum acceptable category levels to be achieved at the end of the transition period, must be established in the planning process. These goals should consider loss of trained personnel and key leaders subsequent to completion of the transition due to normal attrition, release of personnel extended to accomplish transition, relief from excepted unit status, and return to fair share manning. The impact of personnel loss may be protracted over several months.

c. During the transition period, the organization is not prepared to undertake the wartime mission for which it is organized or designed. If the situation dictates, it may be directed to undertake portions of its wartime mission with resources on hand. Organizations in transition report C-5 in affected commodity areas, and C-5 overall when—

(1) Reorganizing or converting.

(2) Activating or inactivating.

d. Other units authorized to report C-5 include HQDA directed cadre units, units not manned or equipped during peacetime, units organized as training units that could be tasked to perform a wartime mission, and all reporting units organized at ALO 4 or below.

e. Unless previously approved, organizations should not execute reorganization, activation, or conversion that is projected to result in a C-4 category level upon completion of the transition period.

f. Organizational assessments evaluate projected unit status under a new authorization document. They identify and resolve problems in attaining at least a C-3 readiness status upon transition to a new structure and/or new materiel systems. Issues that cannot be resolved must be communicated to MACOM and HQDA as soon as practical.

g. The process of assessing organizations that are activating, converting, reorganizing or restationing is designed to ensure that minimum readiness standards are met on the effective date (E-date) of change. This process depends on MACOM-level assessments of organizations undergoing change. HQDA may change the E-date for units that are not projected to meet minimum readiness standards on the programmed E-date.

h. Failure to provide authorized resources to organizations at the E-date results in degradation of capability. “Instant unreadiness” is the condition that occurs when personnel and/or equipment are required and authorized, but are not on hand at the unit level on E-date.

Section V: Summary

Readiness is a primary mission of military forces in peacetime. Readiness is highly situational and subjective. Nevertheless, readiness is a yardstick for programming and budgeting, and the Army’s readiness strategy entails maximizing readiness within available resources to meet the demands of war plans. The more accurately the Army captures and quantifies readiness, the better the Army can articulate resource needs to Department of Defense and the Congress.

Appendix A
Decision Support Analysis

Section I:
Introduction

A-1. Structuring the decision making process

Complex decisions associated with the execution of the force integration mission can exploit decision support analysis in the decision making process. Dollars, time, equipment, and personnel must be allocated to accomplish the mission to structure, man, equip, train, sustain, deploy, station, and fund organizations effectively. To assimilate the information available efficiently, quantitative decision making methods are used to structure the planning process to introduce, incorporate, and sustain change in organizations.

A-2. Quantitative methods and the decision process

Decision making involves setting objectives; developing, evaluating, and selecting alternatives; and considering the consequences of that decision. Decision analysis is the consideration of all quantitative (objective) and qualitative (subjective) factors important to a particular situation involving system effectiveness, manpower planning, force structure development, and facilities. Modern quantitative methods can greatly facilitate this decision process through objective analysis, the preparation and analysis of cost estimates, and evaluating alternative courses of action, thereby reducing uncertainties of experience, judgment, and risk taking.

Section II:
Program Evaluation and Review Technique

A-3. Network diagrams

The Program Evaluation and Review Technique (PERT) is used to analyze projects and determine duration and cost when completion times are uncertain. PERT uses network diagrams that graphically display all of the activities (tasks) in the project. The network diagram assists the decision maker in analyzing all of the requirements and planning the sequence of activities of the project. Figure A-1 is an example of a simple network diagram. Activities are depicted as arrows. The beginnings and ends of activities (called nodes) are depicted as circles. The end node of one or more activities is normally the beginning node of one or more activities.

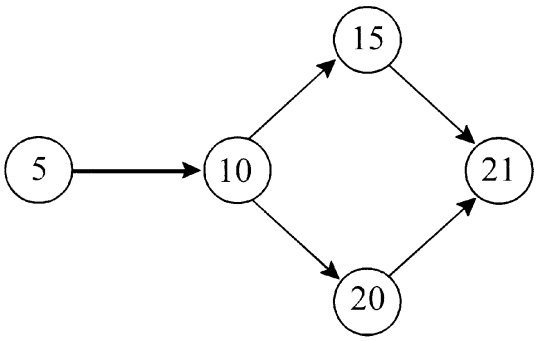


Figure A-1. Network Diagram

a. Nodes and activities. The first step in the PERT application is to define and list all activities. Activities consume resources and time. Nodes do not consume resources or time. The PERT network graphically portrays activities (time-consuming tasks) that must be accomplished to achieve the project goal along with their beginning and end points (nodes). Nodes and activities are arranged in a logical sequence and assist in planning the project. Figure A-2, illustrates nodes and activities.

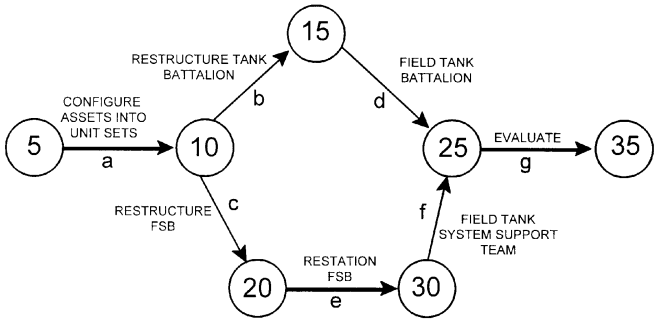


Figure A-2. Example of Network Diagram with Activities

(1) Nodes are identified by assigning successive numbers to them, typically from left to right. The successive numbering system is commonly used with computer programs in solving PERT problems.

(2) Activities can be referred to in either of two ways:

(*a*) By their end points; for example, activity 10-15.

(*b*) By a letter assigned to each arrow; for example, activity b.

(3) When one activity precedes another, it is expressed as illustrated in Figure A-3.

(4) When activities can be accomplished concurrently, they are expressed as indicated in Figure A-4.

(5) Nodes with multiple activities leading into them indicate that all of those activities must be completed before the next activity can begin. A dummy activity is introduced to tie these nodes together or to establish a logical sequence of activities. Dummy activities are the same as other activities except that they take no time for completion and are represented by dashed arrows. Figure A-5 illustrates the technique. In this case, activity 5-10 and activity 5-15 must be completed before activity 5-25 can start (note the direction of dummy activity 10-15 arrowhead). However, activity 10-20 can start when activity 5-10 is completed. Subsequently, the start of activity 25-30 must await the completion of both activity 10-20 and activity 15-25.

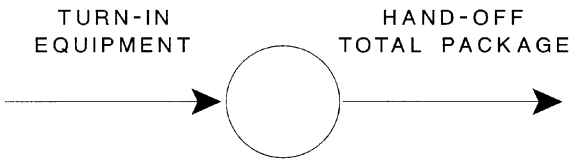


Figure A-3. Activity Precedes Activity

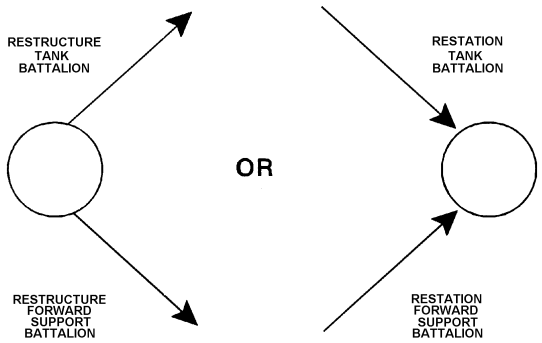


Figure A-4. Concurrent Activities

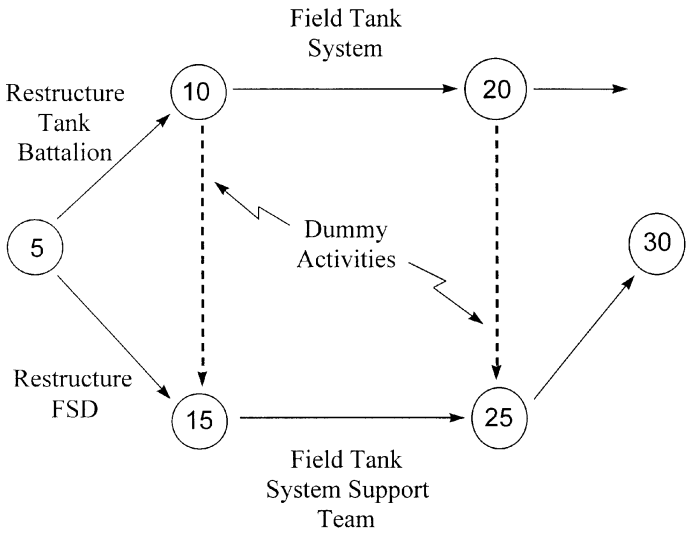


Figure A-5. Dummy Activities

b. Activity time estimates.

(1) A network will identify the relationship of the activities and the activities' time duration to enable the planner to determine project duration and tasks that are critical. The expected project duration is based on the estimated time required to accomplish each activity in the longest path within the network diagram. A path is a sequence of activities that leads from the starting node to the finishing node. In Figure A-2, the sequence 5-10-20-30-35 is a path as is the sequence 5-10-15-25-35. The time estimate for each activity is the expected time required to complete the activity and is represented by the symbol t_e.

(2) The PERT technique uses three time estimates for each activity to determine its expected time (t_e) rather than basing it on a single time estimate. PERT time estimates consider the chance variation that affects all project activities. The three time estimates used are optimistic time, most likely time, and pessimistic time.

(*a*) The optimistic time estimate is defined as the shortest time required to accomplish the activity. There is little likelihood of completing the activity in less than the optimistic time. Optimistic time is represented by the symbol "a" in the expected time computation.

(*b*) The most likely time estimate is the time that would occur most often if the activity were repeated under exactly the same conditions many times. The most likely time is the most realistic estimate of the time the activity might consume. The most likely time is represented by the symbol "m" in expected time computation.

(*c*) Pessimistic time is an estimate of the longest time the activity would require under the most adverse conditions. Pessimistic time is represented by the symbol "b" in the expected time computation.

(3) To determine the activity's most probable or expected time (t_e), use the following formula where t_e is computed as a weighted arithmetic mean of the time estimates:

$$t_e = \frac{a + 4m + b}{6}$$

(4) The network diagram is used to graphically portray all activities that must be accomplished in a project in a logical sequence. Scheduling activities is not new; however, the more complex the project, the more difficult it becomes to estimate the total time required for its accomplishment.

c. Determining project duration.

(1) The network diagram is analyzed to determine the project duration based on the estimated time required to accomplish each activity in the longest time path within the network diagram. This is accomplished by examining each activity and determining its earliest expected start time (T_E) as illustrated in Figure A-6.

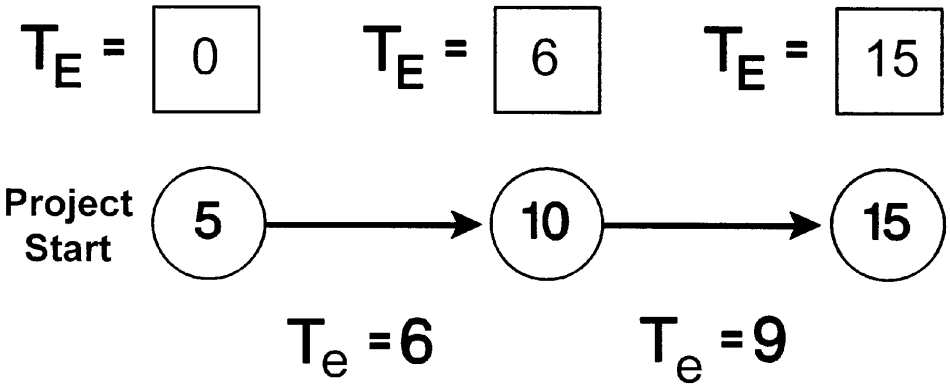


Figure A-6. Earliest Expected Start Time

(2) The earliest expected start time (T_E) of a particular activity is the time at which the activity will begin if all the preceding activities start as early as possible. The first activity in a project is assigned an earliest expected start time(T_E) of zero. The earliest expected start time (T_E) of each activity is determined by adding the duration of the preceding activity (t_e) to its earliest expected time start time (T_E).

(3) In Figure A-6, TE is shown above each node in a square. TE for activity 10-15 is determined by adding te=6 of activity 5-10 to that activity's earliest expected start time, TE=0. The TE

for the activity beginning at node 15 is computed in the same manner.

(4) The decision trace starts at the node representing the beginning of the first activity in the network. The trace continues through the next activity to the next node, adding the activity's duration (t_e) to its earliest expected start time (T_E).

(5) When more than one activity arrow terminates at a node, each activity's expected duration (t_e) is added to its earliest expected start time (T_E). This is the activity's earliest expected completion time. The largest of these earliest expected completion times is assigned as the earliest expected start time (T_E) for the following activity. Figure A-7 is an example of computing the earliest expected start time (T_E) for an activity with more than one activity terminating in its beginning node.

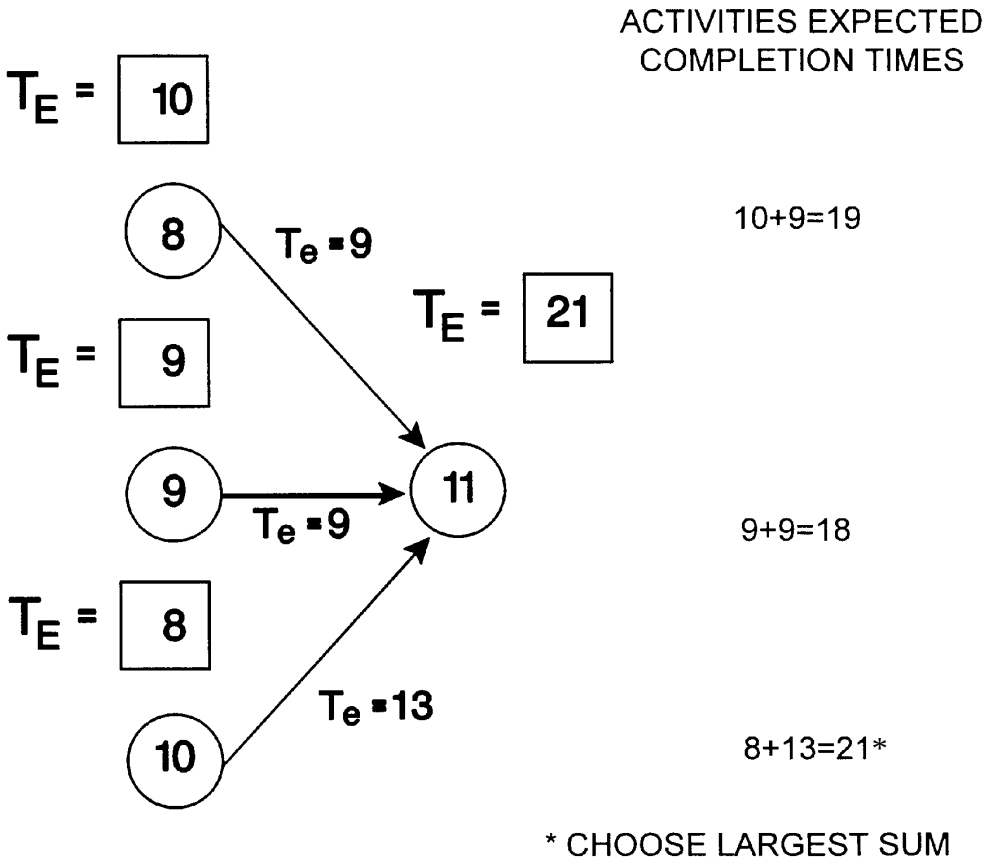


Figure A-7. Calculating T_E with Multiple Activity Arrows at One Node

(6) The project duration is equal to the earliest expected start time computed at the last node (the end point of the last activity) in the network diagram. The trace through the diagram that provides this value is the critical path, which is also the longest path. Any activity on this path that begins later than its earliest expected start time will affect the outcome of the project. Therefore, priority is placed on the activities on this path. There may be more than one critical path. Each critical path will have the same duration.

d. Determining latest allowable start times.

(1) After determining the project duration, the next step is to identify the latest allowable start time (T_L) of each activity. T_L is the latest time that an activity can begin without delaying the completion of the project. The determination of the latest allowable start time (T_L) for each activity is accomplished in the reverse order (backwards through the network) of the project's nodes. Beginning at the last node, the planner assigns a value (T_L) equal to the T_E that was just calculated. Working backwards through the network diagram, the latest allowable start time (T_L)

for each activity is determined by subtracting the activity t_e from the latest allowable start time (T_L) of the following activity. An example is shown in Figure A-8.

(2) In Figure A-8, T_L is shown below each node in a triangle. T_L for activity 15-20 is determined by subtracting t_e of activity 15-20 (6) from the latest allowable start time computed at node 20 (15). The result, T_L=9, is entered under node 15. The same is done for activity 10-15, giving T_L = 6.

(3) When the tail of more than one activity arrow begins at a node, the duration of each activity (t_e) is subtracted from the latest allowable start time (T_L) of the activity following it. The least time obtained is the latest allowable start time (T_L) for the activity under consideration. This is illustrated in Figure A-9.

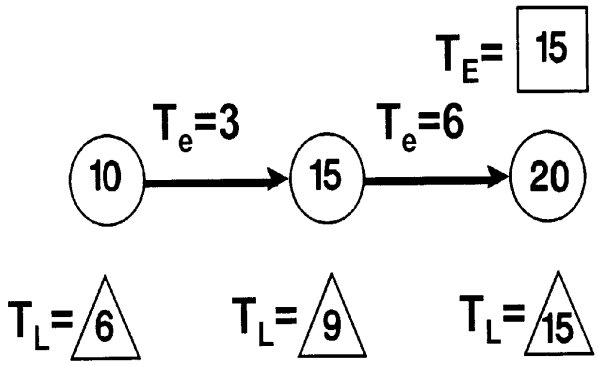


Figure A-8. Latest Allowable Start Time

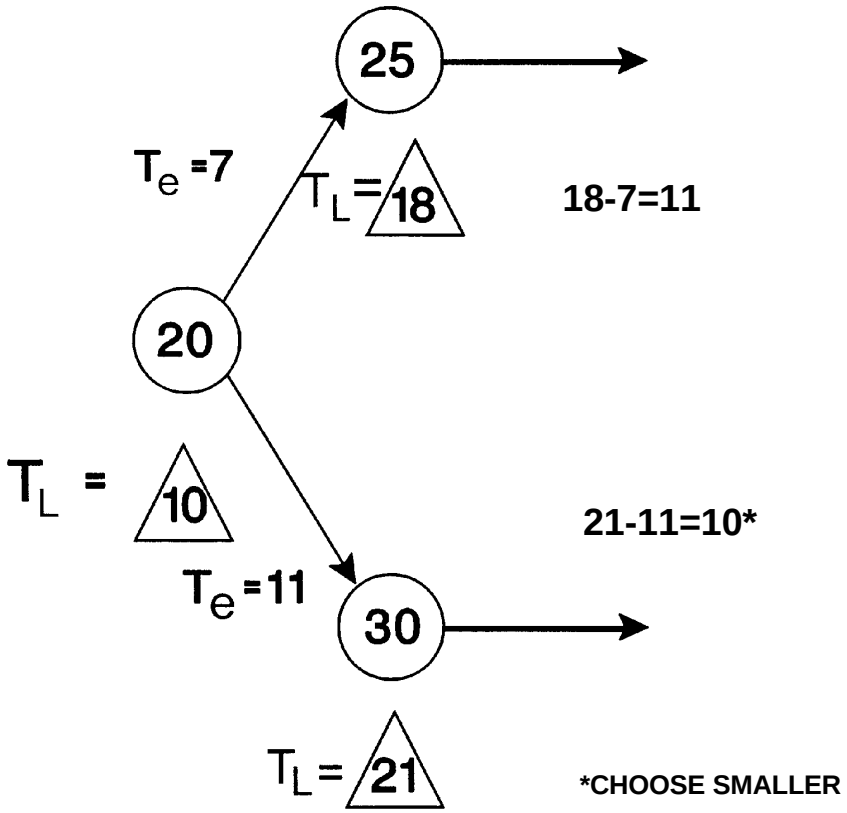


Figure A-9. Calculating T_L with More Than One Activity Arrow at a Node

(4) A T_L=11 is determined for activity 20-25 by subtracting t_e = 7 from T_L = 18 at node 25. Similarly, a T_L=10 is determined for activity 20-30 by subtracting t_e = 11 from T_L = 21at node 30. The smaller value, 10, becomes the T_L for both activity 20-25 and activity 20-30.

e. Determining Slack Time.

(1) Slack time (T_S) indicates how much delay can be tolerated in completing an activity without delaying project completion. This is determined by subtracting the earliest expected start time (T_E) from the latest allowable start time (T_L) for an activity ($T_S = T_L - T_E$).

(2) Figure A-10 illustrates these computations. For example, the slack time for activity 70-80 is one unit (23 - 22 = 1).

(3) The critical path for the project may also be defined as the longest path through the network that connects all activities having zero slack time.

(4) Activities not on the critical path have a positive slack time. These activities can be delayed for a portion or all of the slack time without changing the project duration. If an activity is delayed, the diagram must be recomputed to determine the effect on subsequent activities or critical paths.

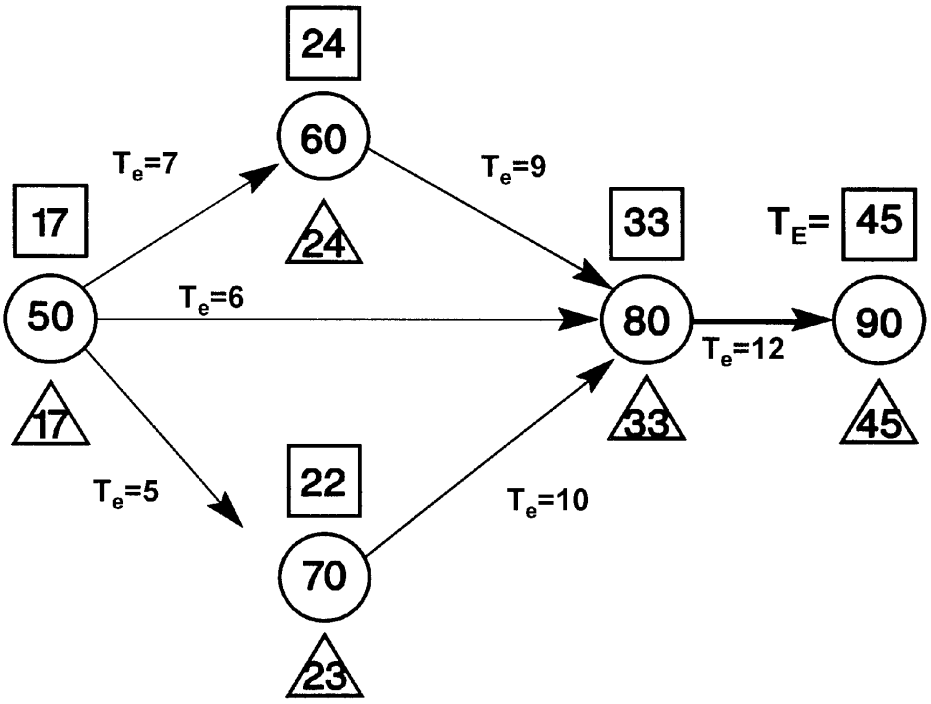


Figure A-10. Slack Time

A-4. Example of a completed PERT network

a. Figure A-11 is a completed network of eight activities. Activities 2-4, 4-6, 6-12, and 12-14 (shown by the double line arrows) are on the critical path and have zero slack. The remaining Activities 4-8, 8-10, 8-12, and 10-14 have slack time and can be delayed. For example, activity 4-8 can be delayed by two days (new t_e = 6) without affecting the project duration. This delay, however, affects the earliest and latest start times and slack times of subsequent activities. A second critical path is also created.

(1) Activities 8-10 and 8-12: T_E=11, T_L=11, T_S=0.

(2) Activity 10-14: T_E = 19, T_L = 21, T_S = .

(3) Critical Paths: 2-4-6-12-14 and 2-4-8-12-14.

b. Once the network diagram is completed, the information is tabulated into a schedule. Tables A-1 and A-2 illustrate methods of tabulating PERT data into useable formats.

A-5. Attributes of PERT

PERT is a management tool that can accurately estimate project duration, identify those activities that are most likely to be bottlenecks, and provide a means to evaluate effects of program changes. Contemplated shifts of resources can be evaluated as well as resource and performance tradeoffs and effects of deviation from actual to predicted time requirements.

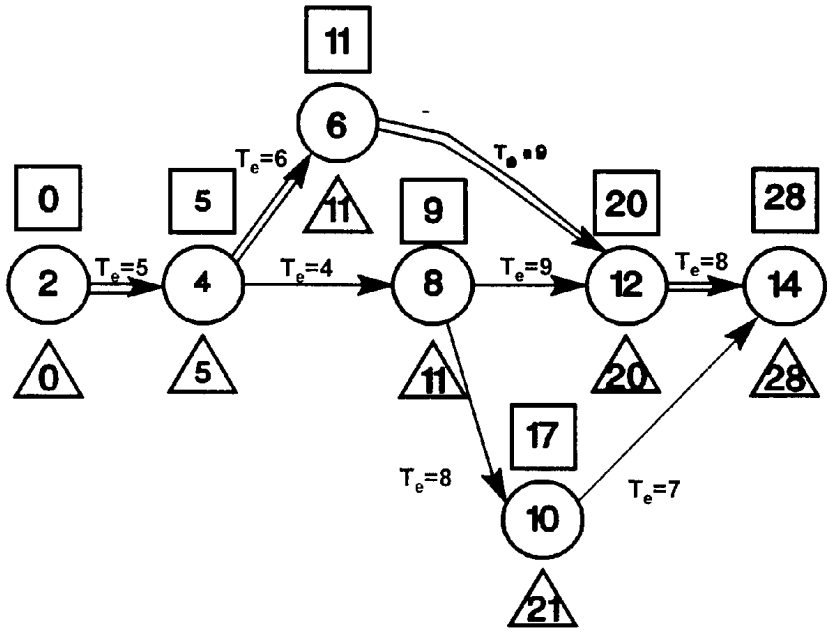


Figure A-11. Complete Network Diagram

Table A-1
Node (Event) Table

NODE	T_E	T_L	T_S
2	0	5	0
4	5	5	0
6	11	11	0
8	9	11	2
10	17	21	4
12	20	20	0
14	28	28	0

Critical path is 2-4-6-12-14

Table A-2
Activity Table

Activity	T_e	T_l	*Earliest expected completion time*	*Notes*
2-4	5	0	5	
4-6	6	5	11	
4-8	4	5	9	1
6-12	9	11	20	2
8-10	8	11	17	
8-12	9	11	20	3
10-14	7	21	28	4
12-14	8	20	28	

1. Least value of T_L for activities 8-10 and 8-12.
2. Greatest value of earliest expected completion time for activities 6-12 and 8-12.
3. Greatest value of earliest expected completion time for activities 10-14 and 12-14.
4. Critical path is 2-4-6-12-14.

Section III: Critical Path Method

A-6. Features of the critical path method

a. The critical path method (CPM) seeks to achieve the most efficient use of resources in the minimum feasible time by using time versus cost trade-off calculations to make an analysis that optimizes the use of available resources.

b. The CPM technique is used when the duration of activities is known with a high degree of certainty. CPM obtains a trade-off between cost and time by emphasizing the relationship between applying more resources to shorten the duration of given jobs versus the increased cost of applying the additional personnel or resources. CPM has been widely used in environments where time factors and resources versus time relationships are known.

A-7. CPM example

a. The first step in preparing the CPM model is to conduct a detailed analysis of the project. Figure A-12 illustrates a hypothetical CPM model. As in PERT, this is done by using a network diagram. After constructing the network diagram, the planner assigns the "crash" and "normal" time and cost estimates for each activity on the diagram. The "crash" time is the minimum possible completion time for an activity that can be achieved by applying additional personnel and resources at some estimated cost. The "normal" time estimate and its associated cost are usually based on previous experience.

b. In Figure A-12, the example CPM network has a critical path of A-D-E indicated by the double line arrows. This portrays the path of the longest duration of the project using "normal" time. The first number in the parenthesis is the "normal" time estimate and the second number is the "crash" time of each activity.

c. The next step is to do a time versus cost trade-off analysis. First, the cost of decreasing each activity's completion time by one day, called the cost slope, is calculated using the following formula:

$$\text{Cost Slope} = \frac{\text{(Crash Cost - Normal Cost)}}{\text{(Normal Time - Crash Time)}}$$

d. Cost slope is expressed in dollars per day ($/day). Table A-3 shows the cost slopes for all of the activities in Figure A-12 as well as other network data.

e. Using Table A-3, a time versus cost analysis can be conducted and alternatives for accelerating the project may be formulated by "crashing" activities. The activity on the critical path with the lowest cost slope (activity D in this example) is crashed first. Using this information, alternative project durations can be determined as shown in Table A-4.

f. Table A-4 shows that a project potentially can be accelerated at relatively minor cost ($540 for five days in this example). Decision makers must weigh increased costs against the benefits of further project acceleration.

g. Objective data in terms of time and cost are used in determining whether projects should be accelerated. Subjective factors, such as quality of life or readiness, must be considered in making the final decision. Intangible factors such as these can potentially drive up the final cost of the project when not considered.

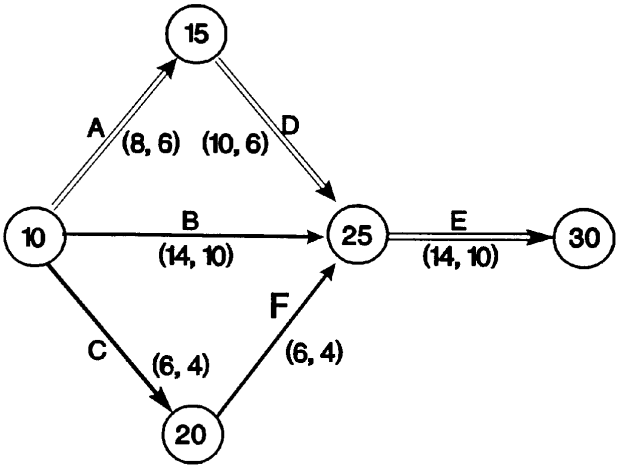


Figure A-12. CPM Network Diagram

Table A-3
Cost Table

	NORMAL		CRASH		
ACTIVITY	DAYS	TOTAL COST ($)	DAYS	TOTAL COST ($)	COST SLOPE ($/DAY)
A	8	200	6	400	100
B	14	560	10	1040	120
C	6	100	4	200	50
D	10	400	6	720	80
E	14	400	10	960	140
F	6	200	4	400	100
TOTALS		1860		3720	
Critical path is A-D-E					

Table A-4
Time Versus Cost Alternatives

PROJECT DURATION (DAYS)	TOTAL COST ($)	REMARKS	NOTES
32	1860	Normal duration along critical path A-D-E.	
31	1940	Crash activity D; decrease one day ($80).	1
30	2020	Crash activity D; decrease one day ($80).	
29	2100	Crash activity D; decrease one day ($80).	
28	2180	Crash activity D; decrease one day ($80).	2, 3
27	2400	Crash activity A; decrease one day ($100). Crash activity B; decrease one day ($120).	4, 5

Notes:
1. Crash one day at a time starting with the activity with the lowest cost slope on the critical path.
2. Activities cannot be crashed beyond their normal time.
3. After each crash, check to see whether another critical path has been created (B-E in this example).
4. Each critical path must be crashed concurrently to keep the network in balance.
5. Management establishes the acceptable total cost of crashing and the process stops when that total cost will have been exceeded.

Section IV: Gantt Charts

A-8. Features of Gantt charts

a. Gantt charts provide graphic representation in the form of a bar chart to depict the time elements of activities within a project. These are represented by bars along a timeline.

b. The main elements of a Gantt chart are the following:

(1) The list of activities for a specific project.
(2) The scheduled start time for each activity.
(3) Projected completion time for each activity.
(4) Status.

c. Actual start and completion dates for each activity may also be included as project management tool.

A-9. Gantt chart example

Figure A-13 shows a hypothetical Gantt chart using the activities and start and completion times from Figure A-12. Gantt charts are constructed by placing the list of activities or phases in a column with scheduled start and projected completion of the activity indicated by the beginning and end of each bar. The actual start and completion dates of each activity are indicated by Xs above each bar graph. The arrow below each bar provides the activity completion status. "Today's Date" is used as a reference.

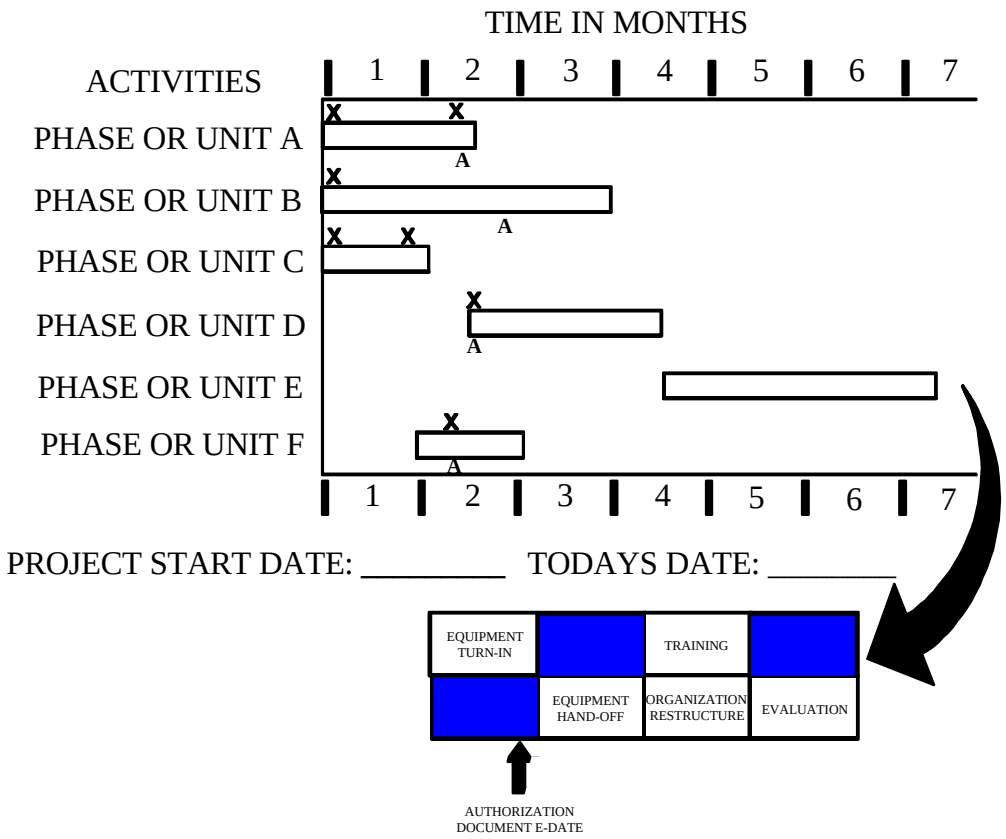


Figure A-13. Gantt Chart

Section V: Summary

The large volume of information that must be considered when making decisions requires that analysis be applied in making the best possible decisions. PERT, CPM, and Gantt are used when developing plans to incorporate new materiel, new doctrine, and new structure into the force structure. Constraints will force decisions that make the best use of the resources available. The decision support analyses described in this appendix can assist in providing the efficiency and effectiveness needed in accomplishing the force integration mission.

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GLOSSARY

Section I
Acronyms, Brevity Codes, and Abbreviations

AA
Active Army

AAE
Army Acquisition Executive

AAMMP
Active Army Military Manpower Program

AAO
Army acquisition objective

AASA
Administrative Assistant to the Secretary of the Army

ACAT
acquisition category

ACC
Army component commander

ACSIM
Assistant Chief of Staff for Installation Management

ACTS
Army Criteria Tracking System

ADCSOPS
Assistant DCSOPS

ADM
Acquisition Decision Memorandum

ADT
active duty for training

AFH
Army Family Housing

AFHO
Family Housing, Army (Operations)

AFPDA
Army force planning data and assumptions

AGR
Active Guard Reserve

AIS
automated information system

AIT
advanced individual training

ALO
authorized level of organization

ALOC
air lines of communication

ALRPG
Army Long Range Planning Guidance

AMC
United States Army Materiel Command

AMOPES
Army Mobilization and Operations Planning and Execution System

AMP
Army Modernization Plan; Army Mobilization Plan

AMRD
Army Modernization Reference Data

AMSCO
Army Management Structure Code

AMT
Army modernization training

AOLCM
Army Organizational Life Cycle Model

AOP
Army order of precedence

APGM
Army Program Guidance Memorandum

APR
Army procurement requirement

APS
Army Planning System; Army Prepositioned Stocks

APSES
Army Prepositioned Stocks Equipment Sets

APSOP
Army Prepositioned Stocks Operational Project

APSS
Army Prepositioned Stocks Sustainment

AR
Army regulation

ARB
Army Resources Board

ARBSG
Army Resources Board Support Group

ARCOM
United States Army Reserve Command

ARFPC
Army Reserve Forces Policy Committee

ARI
Army Research Institute

ARL
Army Research Laboratory

ARNG
Army National Guard

ARNGUS
Army National Guard of the United States

ARNG-TSP
Army National Guard-troop structure program

ARPERCEN
Army Reserve Personnel Center

ARSEC
Army Secretariat

ARSTAF
Army Staff

ARSTRUC
Army structure message

ART
Army Reserve technician

ARTEP
Army Training and Evaluation Program

AS
acquisition strategy

ASA
Assistant Secretary of the Army

ASA(CW)
ASA (Civil Works)

ASA(FM&C)
ASA (Financial Management & Comptroller)

ASA(IL&E)
ASA (Installations, Logistics, and Environment)

ASA(M&RA)
ASA (Manpower and Reserve Affairs)

ASA(RDA)
ASA (Research, Development, and Acquisition)

ASCC
Army service component commander

ASD
Assistant Secretary of Defense

ASD(C3I)
ASD (Command, Control, Communications, and Intelligence)

ASD(FMP)
ASD for Force Management Policy

ASD(HA)
ASD for Health Affairs

ASD(S&R)
ASD for Strategy and Requirements

ASD(RA)
ASD (Reserve Affairs)

ASI
additional skill identifier

ASIOE
associated support items of equipment

ASIOEP
associated support items of equipment and personnel

ASIP
Army Stationing and Installation Plan

ASL
authorized stockage list

AT
annual training

ATC
Army training center

ATRRS
Army Training Requirements and Resources System

AUTS
Automatic Update Transaction System

AVCSA
Assistant Vice Chief of Staff, United States Army

AVIM
aviation intermediate maintenance

AVUM
aviation unit maintenance

AWCF
Army Working Capital Fund

AWP
annual work plan

AWR
Army War Reserve

AWRSA
Army War Reserve Stocks for Allies

AWRSI
Army War Reserve Secondary Items

BCTP
battle command training program

BDE
brigade

BES
Budget Estimates Submission

BII
basic issue items

BIT
built in test

BITE
built-in test equipment

BOIP
basis-of-issue plan

BT
basic training

BTOE
base TOE

BY
budget year

C3I
command, control, communications, and intelligence

C4
command, control, communications, and computers

CA
Civil Affairs

CAA
Concepts Analysis Agency

CAD
course administrative data

CAE
Component Acquisition Executive

CAPCES
Construction Appropriation, Programming, Control, and Execution System

CAR
Chief, Army Reserve

CATS
Combined Arms Training Strategy

CBO
Congressional Budget Office

CBS-X
Continuing Balance System-Expanded

CBTDEV
combat developer; combat development

CCH
Chief of Chaplains

CCSS
Commodity Command Standard System

CDR
commander

CEPCSS
Centralized Equipment Procurement Conversion Capability System

CG
commanding general, Chairman's Guidance

CINC
commander in chief

CIS
Capital Investment Strategy

CJCS
Chairman of the Joint Chiefs of Staff

CJCSI
Chairman of the Joint Chiefs of Staff Instruction

CLL
Chief of Legislative Liaison

CM
Command Manager

CM(FS)
Command Manager (Force Structure)

CM(PBG)
Command Manager (Program Budget Guidance)

CNGB
Chief, NGB

CO
company

COC
Council of Colonels

COE
Corps of Engineers; Chief of Engineers

COMPO
component

COMPT
comptroller

CONPLAN
concept plan; contingency plan

CONUS
continental United States

CONUSA
continental U.S. Army

CPA
Chairman's Program Assessment; Chief of Public Affairs

CPG
Contingency Planning Guidance

CPLAN
command plan

CPM
critical path method

CPR
Chairman's Program Recommendation

CPX
command post exercise

CRA
continuing resolution authority

CRRC
Construction Requirements Review Committee

CRS
Chairman's Readiness System

CS
combat support

CSA
Chief of Staff, U.S. Army

CSS
combat service support

CTA
common table of allowances

CTU
Consolidated TOE Update

CX
Categorical Exclusion

CY
current year

DA
Department of the Army

DAB
Director of the Army Budget (used to refer to the Deputy Assistant Secretary of the Army for Budget) Defense Acquisition Board

DAE
Department (of Defense) Acquisition Executive

DALSO
DA Logistics Systems Officer

DAMPL
DA Master Priority List

DARNG
Director of the Army National Guard

DAS
Director of the Army Staff

DCG
deputy commanding general

DCS
Deputy Chief of Staff

DCSCD
Deputy Chief of Staff for Combat Developments, TRADOC

DCSINT
Deputy Chief of Staff for Intelligence

DCSLOG
DCS for Logistics

DCSOPS
DCS for Operations and Plans

DCSPER
Deputy Chief of Staff for Personnel

DEH
Directorate of Engineering and Housing (now known as DPW)

DEPSECDEF
Deputy SECDEF

DET
displaced equipment training

DETP
Displaced Equipment Training Plan

DFAS
Defense Finance and Accounting Service

DI
Document Integrator

DISC4
Director of Information Systems for Command, Control, Communications, and Computers

DISCOM
division support command

DIV
division

DM
Director of Management

DOD
Department of Defense

DODAAC
Department of Defense activity address code

DODD
DOD directive

DPAE
Director of Program Analysis and Evaluation

DPAMMH
direct productive annual maintenance man-hours

DPAS
Defense Priorities and Allocation System

DPG
Defense Planning Guidance

DPP
Dedicated Procurement Program

DPW
Director of Public Works

DRB
Defense Resources Board

DRMO
Defense Reutilization and Marketing Office

DS
direct support

DT&E
development test and evaluation

DTLOMS
doctrine, training, leader development, organizations, materiel, and soldiers

DTT
doctrine and tactics training

DY
design year

EA
Environmental Assessment

EAC
echelons above corps; Evaluation Analysis Center

EAD
echelons above division

E-date
effective date

EDI
Electronic Data Interchange

EDSS
Equipment Distribution Sequence System

EIS
Environmental Impact Statement

ELIM
Enlisted Loss Inventory Model

ELIM-COMPLIP
Enlisted Loss Inventory Model-Computation of Manpower Using Linear Programming

EPR
Environmental Program Requirement

ERC
equipment readiness code

ERPS
Equipment Release Priority System

EXCOM
Executive Committee

EXEVAL
external evaluation

FAA
functional area assessment

FDD
Force Design Directorate, DCSCD, TRADOC

FDU
force design update

FEMA
Federal Emergency Management Agency

FFR
Force Feasibility Review

FI
Force Integrator

FIFA
force integration functional area

FM
Field Manual; financial management

FMS
foreign military sales

FNSI
Finding of No Significant Impact

FOA
field operating agency

FOC
future Army operational capability

FORSCOM
United States Army Forces Command

FPS
Facility Planning System

FS
force structure

FSA
force structure allowance

FTS
full-time support

FTSMC
Full Time Support Management Center

FTX
field training exercise

FUE
first unit equipped

FUED
first unit equipped date

FVC
Force Validation Committee

FY
fiscal year

FYDP
Future Years Defense Program

GAO
General Accounting Office

GIS
Geographic Information System

GO
general officer

GS
general support

GSA
General Services Administration

GY
guidance year

HAC
House Appropriations Committee

HBC
House Budget Committee

HFE
human factors engineering

HH
health hazard

HNSC
House National Security Committee

HOMES
Housing Operations Management System

HQDA
Headquarters, Department of the Army

HQIFS
headquarters Integrated Facilities System

HQISR
headquarters Installation Status Report

HQRPLANS
headquarters Real Property Planning and Analysis System

HSI
human system integration

HUD
Department of Housing and Urban Development

IADT
initial active duty for training

ICP
incremental change package

IDG
installation Design Guide

IDT
inactive duty training

IFS
Integrated Facilities System

IIQ
initial issue quantity

ILS
integrated logistics support

IMA
Individual Mobilization Augmentee

IMP
installation master plan

ING
Inactive Army National Guard

IOC
initial operational capability

IPB
Installation Planning Board

IPL
Integrated Priority List

IPR
in process review

IRR
Individual Ready Reserve

ISR
Installation Status Report

IT
information technology

ITOE
intermediate TOE

ITP
individual training plan

J5
Strategic Plans and Policy Directorate, the Joint Staff

J8
Force Structure Resources and Assessments Directorate, the Joint Staff

JCS
Joint Chiefs of Staff

JMRR
Joint Monthly Readiness Review

JOPES
Joint Operation Planning and Execution System

JP
Joint Publication

JPD
Joint Planning Document

JRB
JROC Review Board

JROC
Joint Requirements Oversight Council

JSCP
Joint Strategic Capabilities Plan

JSPS
Joint Strategic Planning System

JSR
Joint Strategy Review

JWCA
Joint Warfighting Capabilities Assessment

KPP
key performance parameter

Labs
laboratories

LCSMM
Life Cycle System Management Model

LCX
logistics coordination exercise

LIF
logistics intelligence file

LIN
line item number

LINEDIT
LIN-edit

LOGCAP
logistical civil augmentation program

LOGSACS
Logistics Structure and Composition System

LRC
Long-Range Component

LRIP
low rate initial production

MACOM
major Army command

MAE
Mission Accomplishment Estimate

MAISRC
Major Automated Information Systems Review Council

MANPRINT
manpower and personnel integration

MARC
manpower requirements criteria

MATCH
TAA comparison report

MAT CMD
materiel command

MATDEV
materiel developer; materiel development

MBI
major budget issue

MC
Mobilization Component

MCA
Military Construction, Army

MCDM
military construction, Defense Medical

MDAP
major defense acquisition program

MDEP
management decision package

MDR
milestone decision review

METT-T
mission, enemy, terrain, troops, and time available

MFA
Materiel Fielding Agreement

MFORCE
Master Force

MFP
materiel fielding plan

MILCON
military construction

MILDEP
military deputy

MMEWR
minimum mission essential wartime requirements

MNS
mission need statement

MOA
Memorandum of Agreement

MOC
management of change

MODPATH
modernization path

MOE
measure of effectiveness

MON
memorandum of notification

MOP
Memorandum of Policy

MOS
military occupational specialty

MOSLS
Military Occupational Specialty Level System

MPES
Mobilization Planning and Execution System

MRL
materiel requirements list

MRMC
Medical Research and Materiel Command

MS
milestone

MSP
Mission Support Plan

MTOE
modification table of organization and equipment

MTP
Materiel Transfer Plan

MTW
major theater war

MUTA
multiple Unit Training Assemblies (UTAs)

MUTA-4
four UTAs conducted back-to-back (normally one weekend MUTA)

MWR
morale, welfare, and recreation

NCA
National Command Authorities

NEPA
National Environmental Policy Act of 1969

NET
new equipment training

NETP
new equipment training plan

NGB
National Guard Bureau

NICP
national inventory control point

NMP
national maintenance point

NMS
National Military Strategy

NOI
Notice of Intent

NOT
new organization training

NSC
National Security Council

NSCS
National Security Council System

NTC
National Training Center

OA
obligation authority

OCAR
Office of the Chief, Army Reserve

OCONUS
outside the continental U.S.

ODCSLOG
Office of the Deputy Chief of Staff, Logistics

ODCSOPS
Office of the Deputy Chief of Staff, Operations and Plans

ODCSPER
Office of the Deputy Chief of Staff, Personnel

OEC
Operational Evaluation Command

OI
Organization Integrator; organizational integration

OJCS
Office of the Joint Chiefs of Staff

OMA
Operation and Maintenance, Army

OMB
Office of Management and Budget

OOD
out-of-DAMPL sequence

OOTW
operations other than war

OPALS
Officer Projection Aggregate Level System

OPCON
operational control

OPFAC
operational facilities

OPLAN
operation plan

OPM
Office of Personnel Management

OPTEC
Operational Test & Evaluation Command

OPTEMPO
operating tempo

ORD
operational requirements document

ORF
operational readiness float

OSA
Office of the Secretary of the Army

OSD
Office of the Secretary of Defense

OSUT
one station unit training

OT&E
operational testing and evaluation

OTOE
objective TOE

PAED
Program Analysis and Evaluation Directorate

PB
President's Budget

PBC
Program and Budget Committee

PBD
program/budget decision

PBG
Program Budget Guidance

PCS
permanent change of station

PDD
Presidential Decision Directive

PDM
Program Decision Memorandum

PE
program element

PEG
Program Evaluation Group

PEO
Program Executive Officer

PERSACS
Personnel Structure and Composition System

PERSCOM
Total Army Personnel Command

PERSO
Personnel Systems Staff Officer

PERT
Program Evaluation and Review Technique

PLL
prescribed load list

PLT
platoon

PM
project, program, or product manager

PMAD
Personnel Management Authorization Document

POC
point of contact

POI
program of instruction

POM
program objective memorandum

POSC-edit
Personnel Occupational Specialty Code-edit file

PPBES
Planning, Programming, Budgeting, and Execution System

PPBS
Planning, Programming, and Budgeting System

PRB
Program Review Board

PRD
Presidential Review Decision

PREPO
prepositioned sets of equipment

PRG
Program Review Group

PROBE
program optimization and budget evaluation

PROC
procurement appropriation

PSG
Prioritization Steering Group

PSYOPS
psychological operations

PY
program year; prior year

QAPR
Quarterly Army Performance Review

QMP
Qualitative Management Program

QQPRI
qualitative and quantitative personnel requirements information

R&D
research and development

RAP
revised approved program

RC
Reserve Component

RCCC
Reserve Component Coordination Council

RCF
repair cycle float

RDA
research, development, and acquisition

RDAP
research, development, and acquisition plan

RDD
Requirements Documentation Directorate, USAFMSA

RDS
Requirements Documentation System

RDTE
research, development, test, and evaluation

REC
record of environmental consideration

REQUEST
Recruit Quota System

REQVAL
Requisition Validation

RFPB
Reserve Forces Policy Board

ROD
Record of Decision

ROE
rules of engagement

ROTC
Reserve Officers' Training Corps

RPI
real property inventory

RPIP
real property investment plan

RPLANS
Real Property Planning and Analysis System

RPM
real property maintenance

RPMA
real property maintenance activities

RPMP
Real Property Master Plan

RPMS
Real Property Management System

RPPB
real property planning board

RSC
Army Reserve Regional Support Command

S&I
science and infrastructure

SA
Secretary of the Army

SAC
Senate Appropriations Committee

SACS
Structure and Composition System

SAG
senior advisory group; study advisory group

SAMAS
Structure and Manpower Allocation System

SASC
Senate Armed Services Committee

SAT
systems approach to training

SBC
Senate Budget Committee

SBIR
Small Business Innovation Research Program

SECDEF
Secretary of Defense

SI
Systems Integrator

SIDPERS
Standard Installation/Division Personnel System

SIMOS
space imbalanced MOS

SINCGARS
single-channel ground and airborne radio system

SIPC
Stationing and Installation Planning Committee

SIRDAP
Science and Infrastructure RDA Plan

SISA
Science and Infrastructure Support Analysis

SOCOM
Special Operations Command

SOF
Special Operations Forces

SORTS
Status of Resources and Training System

SPC
Strategy and Planning Committee

SQD
squad

SRC
standard requirement code; Short-Range Component

SS
system safety

SSv
soldier survivability

ST
sustainment training

STARC
State Area Command

STRAP
system training plan

STTE
special tools and test equipment

STTR
Small Business Technology Transfer Pilot Program

STX
situational training exercise

T&E
testing and evaluation

TAA
total Army analysis

TAADS-R
The Army Authorization Document System— Redesign

TAEDP
total Army equipment distribution program

TAG
the adjutant general of a state or territory

TAP
The Army Plan

TAPDB
Total Army Personnel Database

TAPDB-AE
TAPDB-Active Enlisted

TAPDB-AO
TAPDB-Active Officer

TAV
total asset visibility

TBEP
training base expansion plan

TDA
table of distribution and allowances

TECOM
Test and Evaluation Command

TEXCOM
U.S. Army Test and Experimentation Command

TF
task force

TIG
The Inspector General

TJAG
The Judge Advocate General

TM
team

TMDE
test, measurement, and diagnostic equipment

TNG
training

TNGDEV
training developer; training development

TOA
total obligational authority

TOE
table of organization and equipment

TOM-D
training, operation, mobilization, and deployment

TPF
total package fielding

TPFDD
Time-phased Force Deployment Data

TPFDL
Time-phased Force Deployment List

TPU
troop program unit

TRADOC
U.S. Army Training and Doctrine Command

TRAS
training requirements analysis system

TSG
The Surgeon General

TSM
TRADOC System Manager

TSOP
tactical standing operating procedure

TTHS
transients, trainees, holdees, and students

TTP
tactics, techniques, and procedures

UAD
updated authorizations document

UIC
unit identification code

UMMCA
Unspecified Minor Military Construction, Army

UPH
Unaccompanied Personnel Housing

URS
unit reference sheet

USA
Under Secretary of the Army

USACE
U.S. Army Corps of Engineers

USACGSC
U.S. Army Command and General Staff College

USAFMSA
U.S. Army Force Management Support Agency

USAINSCOM
U.S. Army Intelligence and Security Command

USAMEDCOM
U.S. Army Medical Command

USAR
United States Army Reserve

USARC
USAR Command

USAREC
U.S. Army Recruiting Command

USAREUR
U.S. Army, Europe

USARF
U.S. Army Reserve Force

USARPAC
U.S. Army, Pacific

USASMDC
U.S. Army Space and Missile Defense Command

USASOC
U.S. Army Special Operations Command

USC
United States Code

USD(A&T)
Under Secretary of Defense for Acquisition and Technology

USD(Comptroller)
Under Secretary of Defense for Comptroller

USD(P)
Under Secretary of Defense for Policy

USD(P&R)
Under Secretary of Defense for Personnel and Readiness

USEUCOM
U.S. European Command

USPACOM
U.S. Pacific Command

USPFO
United States Property and Fiscal Officer

USR
unit status report

UTA
Unit Training Assembly

VCJCS
Vice Chairman, Joint Chiefs of Staff

VCSA
Vice Chief of Staff, Army

WARF
wartime active replacement factors

WFLA
Warfighting Lens Analysis

WPNS
weapons

WRSI
War Reserve Secondary Items

Section II
Definitions

Acceptability
Operation plan review criterion. The determination whether the contemplated course of action is worth the cost in manpower, materiel, and time involved; is consistent with the law of war; and militarily and politically supportable. (JP 1-02)

Activate
To put into existence by official order a unit, post, camp, station, base or shore activity which has previously been constituted and designated by name or number, or both, so that it can be organized to function in its assigned capacity. (JP 1-02)

Activity
1. A unit, organization, or installation performing a function or mission, e.g., reception center, redistribution center, naval station, naval shipyard.

2. A function or mission, e.g., recruiting, schooling. (JP 1-02)

Affordability assessment
An assessment of the ability of the Army to provide Program and Budget Guidance (PBG) support to force structure actions.

Allot
Assign an organization, unit, or activity to a force structure component.

Authorization
The allocation of resources against an approved requirement.

Base table of organization and equipment (BTOE)
An organization design based on doctrine and equipment currently available. It is the lowest common denominator of modernization and identifies the mission essential wartime requirements for personnel and equipment based upon equipment common to all units of a given type organization.

Capability
The ability to execute a specified course of action. (A capability may or may not be accompanied by an intention.) (JP 1-02)

Combat development (CBTDEV)
The process of analyzing, determining, and prioritizing Army requirements for doctrine, training, leader development, organizations, soldier development, and equipment and executing or, (in the case of doctrine, training and materiel, initiating) solutions, within the context of the force development process.

Combat service support (CSS)
The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. (JP 1-02)

Combatant commander
A commander in chief (CINC) of one of the unified or specified combatant commands established by the President. (JP 1-02)

Command
1. The authority that a commander in the Armed Forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel.

2. An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action,

3. A unit or units, an organization, or an area under the command of one individual. (JP 1-02)

Command Manager (Force Structure) (CM(FS))
A manager of resourcing, documentation, fielding, and sustainment to assure doctrinal, operational, and technical integration of functionally dissimilar organizations. Responsible for TDA and MTOE force integration for a specific MACOM.

Component
One of the subordinate organizations that constitute a joint force. Normally a joint force is organized with a combination of Service and functional components. (JP 1-02)

Component commander
Commander of a Service or functional component of a joint force.

Concept
A notion or statement of an idea, expressing how something might be done or accomplished, that may lead to an accepted procedure. (JP 1-02)

Consolidation
The combining or merging of elements to perform a common or related function.

Constitute
To provide the legal authority for the existence of a new unit of the Armed Services. The new unit is designated and listed, but it has no specific existence until the unit is activated (JP 1-02)

Constraint
Resource (manpower, materiel, money, time, technology, or information) limitations that restrict action.

Conversion
Change an organization or unit structure from one SRC to another SRC.

Demobilization
The process of transitioning a conflict or wartime military establishment and defense-based civilian economy to a peacetime configuration while maintaining national security and economic vitality.

Deployment
1. The movement of forces within areas of operation. 2. The positioning of forces into a formation for battle. 3. The relocation of forces and materiel to desired areas of operations. Deployment encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging, and holding areas. (JP 1-02)

Distribution system
That complex of facilities, installations, methods, and procedures designed to receive, store, maintain, distribute, and control the flow of military materiel between the point of receipt into the military system and the point of issue to using activities and units. (JP 1-02)

Doctrine
Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application. (JP 1-02)

Doctrine development
The process of translating doctrinal requirements into publications that prescribe doctrine, tactics, techniques, and procedures.

Document Integrator (DI)
Personnel who assist organization integrators, force integrators, and systems integrators by ensuring that requirements and authorization documents comply with approved Army force programs as reflected in the Structure and Manpower Allocation System (SAMAS)and leadership guidance.

Effective date (E-date)
The effective date of any change in unit status. Also known as E-date. The date on which an authorization document is applied to one or more units, or when a specific action takes place.

End state
A set of prescribed conditions to be achieved at termination of planned activities.

Readiness executability assessment
An assessment of whether there are sufficient personnel and equipment resources available to man and equip units to readiness category three (C3) or better at the unit location by E-date.

Force
An aggregation of military personnel, weapons systems, vehicles and necessary support or combination thereof. (JP 1-02)

Force development
The process of determining Army doctrinal, leader development, training, organizational, soldier development, and materiel requirements and translating them into programs and structure, within allocated resources, to accomplish Army missions and functions.

Force integration
The synchronized, resource-constrained execution of an approved force development program to achieve systematic management of change, including—

- The introduction, incorporation, and sustainment of doctrine, organizations, and equipment in the Army;
- Coordination and integration of operational and managerial systems collectively designed to improve the effectiveness and capability of the Army; and,
- Knowledge and consideration of the potential implications of decisions and actions taken within the execution process.

Force integration functional areas (FIFA)
The vertically oriented functions of structuring, manning, equipping, training, sustaining, funding, and stationing Army organizations and units..

Force Integrator (FI)
A manager of resourcing, documentation, fielding, and sustainment to assure doctrinal, operational, and technical integration of functionally dissimilar organizations. Responsible for the horizontal integration of large units such as brigades, regiments, groups, divisions and corps.

Force management
The capstone process to establish and field mission-ready Army organizations. The process involves organization, integration, decision making, and execution of the spectrum of activities encompassing requirements definition, force development, force integration, force structuring, combat developments, materiel developments, training developments, resourcing, and all elements of the Army Organizational Life Cycle Model (AOLCM).

Force modernization
The process of improving the Army's force effectiveness and operational capabilities through force development and integration.

Force package
Forces assigned to a prioritized group based on mission, geographic orientation or time-phased deployment.

Force projection
The deployment of forces from CONUS or OCONUS stations to conduct combat operations or operations other than war; spans mobilization through demobilization activities.

Force readiness
The readiness of the Army as measured by its ability to man, equip, and train its forces and to mobilize, deploy and sustain them as required to accomplish assigned missions.

Force structure (FS)
Numbers, size, and composition of the units that comprise our Defense forces; e.g., divisions, ships, air wings. For Army purposes it is the composition, by number and type of organizations, of the current, planned, or programmed Total Army.

Force structure component
One of the nine elements into which resources and/or force structure are allotted. They are Active Army, ARNG, USAR, unresourced units, Army War Reserve, prepositioned sets of equipment, direct host nation support, indirect host nation support, and logistics civil augmentation.

Forward presence
Forces assigned or deployed OCONUS.

Functional area assessment
A method for integrating the efforts of the Army Staff, the U.S. Army Training and Doctrine Command (TRADOC), the U.S. Army Materiel Command (AMC), and other major Army commands (MACOMs) to identify discontinuities in Army plans and develop action plans that will assure success of Army force integration.

Incremental change package (ICP)
Doctrinally sound grouping of personnel and equipment change documents (doctrine, basis-of-issue plan (BOIP), manpower requirements criteria (MARC), and so forth) which are applied to a base or intermediate table of organization and equipment (BTOE or ITOE) to form a new intermediate TOE or objective TOE.

Incremental table of organization and equipment
A system that prescribes the organizational design, including personnel and equipment requirements, of a type of unit displayed in discrete evolutionary increments of capability. The incremental TOE system resides in automated files. It begins with a doctrinally sound base TOE and progresses through a series of doctrinally sound intermediate TOE leading to a fully modernized objective design.

Intermediate table of organization and equipment (ITOE)
A transition TOE that results from applying one or more incremental change packages (ICPs) in a predetermined sequence to a TOE to produce an enhanced capability. These documents form the bridge between the base TOE (BTOE) and objective TOE (OTOE) and provide the primary tool for programming, executing, standardizing, and documenting the force structure during phased modernization.

Infrastructure
A term generally applicable to all fixed and permanent installations, fabrications, or facilities for the support and control of military forces. (JP 1-02)

Instant unreadiness
The result of failure to provide authorized resources (personnel and/or equipment) to an organization by the effective date of authorization.

Logistics
The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel: b. movement, evacuation, and hospitalization of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; and d. acquisition or furnishing of services. (JP 1-02)

Management
A process of establishing and attaining objectives to carry out responsibilities. Management consists of those continuing actions of planning, organizing, directing, coordinating, controlling, and evaluating the use of men, money, materials, and facilities to accomplish missions and tasks. Management is inher-

ent in command, but it does not include as extensive authority and responsibility as command. (JP 1-02)

Manpower requirements
Human resources needed to accomplish specified work loads of organizations. (JP 1-02)

Manpower resources
Human resources available to the Services which can be applied against manpower requirements. (JP 1-02)

Materiel development
The conception, development, and execution of solutions to materiel requirements identified and initiated through the combat developments process, translating equipment requirements into executable programs within acceptable performance, schedule, and cost parameters.

Military requirement
An established need justifying the timely allocation of resources to achieve a capability to accomplish approved military objectives, missions, or tasks. (JP 1-02)

Mobilization
1. The act of assembling and organizing national resources to support national objectives in time of war or other emergencies.

2. The process by which the Armed Forces or part of them are brought to a state of readiness for war or other national emergency. This includes activating all or part of the Reserve Components as well as assembling and organizing personnel, supplies, and materiel. (JP 1-02)

Objective table of organization and equipment (OTOE)
A fully modernized, doctrinally sound organizational design that sets the goal for planning and programming of the Army's force structure and supporting acquisition systems primarily in the last year of the program objective memorandum and the extended planning annex.

Operations other than war (OOTW)
Military activities during peacetime and conflict that do not necessarily involve armed clashes between two organized forces.

Operating tempo (OPTEMPO)
The estimated average annual system usage expressed in miles or hours per year, or other appropriate units of measure of resources required per system.

Organizational development
The process of translating organization requirements into unit models.

Organization integration
Management of change in organizations.

Organization Integrator (OI)
Head of an organization integration team which manages the resourcing, documentation, fielding, and sustainment of functionally similar organizations as integrated packages, assuring doctrinally aligned capabilities within resource constraints.

Organize
Assign personnel and equipment to an organization or unit to make it operative.

Port of debarkation
The geographic point at which cargo or personnel are discharged. May be a seaport or aerial port of debarkation. For unit requirements, it may or may not coincide with the destination. Also called POD. (JP 1-02)

Port of embarkation
The geographic point in a routing scheme from which cargo or personnel depart. May be a seaport or aerial port from which personnel and equipment flow to port of debarkation. For unit and nonunit requirements, it may or may not coincide with the origin. Also called POE. (JP 1-02)

Power projection
The application of elements of national power to respond to a crisis.

Readiness
The ability of US military forces to fight and meet the demands of the national military strategy. Readiness is the synthesis of two distinct but interrelated levels: a. unit readiness—The ability to provide capabilities required by the combatant commanders to execute their assigned missions. This is derived from the ability of each unit to deliver the outputs for which it was designed. b. joint readiness—The combatant commander's ability to integrate and synchronize ready combat and support forces to execute his or her assigned missions. (JP 1-02)

Requirement
See military requirement

Supportability assessment
An assessment of whether there are sufficient personnel and equipment resources in the Army to fill unit(s) to readiness category 3 (C3) or better at MOS/grade/LIN/quantity level of detail.

Synchronization
The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time. (JP 1-02)

System Integrator (SI)
The coordinator for determining requirements, assuring operational and organizational documentation, coordinating, planning, and programming fielding, and recommending resourcing priorities for designated functional areas or specific materiel systems.

Table of distribution and allowances (TDA)

An authorization document that prescribes the organizational structure and the personnel and equipment requirements and authorizations of a military unit to perform a specific mission for which there is no appropriate table of organization and equipment (TOE). An augmentation TDA is an authorization document created to authorize additional personnel and equipment or both to a modification TOE (MTOE) unit to perform an added peacetime or non-MTOE mission.

Table of organization and equipment (TOE).
The TOE is a document that prescribes the wartime mission, capabilities, organizational structure, and mission essential personnel and equipment requirements for military units. It portrays the doctrinal modernization path (MODPATH) of a unit over time from the least modernized configuration (base TOE) to the most modernized (objective TOE). (Also see base TOE, incremental change package, incremental TOE, intermediate TOE, and objective TOE)

Total Army analysis
The process that analytically and subjectively generates the below-the-line tactical support forces and the general purpose forces necessary to support the above-the-line divisional and nondivisional combat forces contained in the Army fiscally constrained force (divisions, separate brigades, special forces groups, and armored cavalry regiments).

Training development (TNGDEV)
The conception, development, and execution of solutions to training requirements identified through the combat development process. The solutions may include new or revised training programs, material, methods, media, and system and nonsystem training devices.

Unified command
A command with a broad, continuing mission under a single commander and composed of significant assigned components of two or more Military Departments, and which is established and so designated by the President, through the Secretary of Defense with the advice and assistance of the Chairman of the Joint Chiefs of Staff. Also called unified combatant command. (JP 1-02)

Unit

1. Any military element whose structure is prescribed by competent authority, such as a table of organization and equipment; specifically, part of an organization.

2. An organization title of a subdivision of a group in a task force.

3. A standard or basic quantity into which an item of supply is divided, issued, or used. In this meaning, also called a unit of issue.

4. With regard to reserve components of the Armed Forces, denotes a Selected Reserve unit organized, equipped and trained for mobilization to serve on active duty as a unit or to augment or be augmented by another unit. Headquarters and support functions without wartime missions are not considered units. (JP 1-02)

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