

## Chapter 5

### Army Force Development

*“Most militaries do change, but in most cases, it is when wartime pressures, wartime setbacks force them into it... Today, we seek to change in a time of relative peace, in a time when our country enjoys economic prosperity, and a time when we have both a strategic perspective as a leading nation of the world, and also at a time when we have the technological potential to do something about it... We do have a window of opportunity, and the Army is embarking on its most significant change in about a century.”*

General Eric K. Shinseki, Chief of Staff, Army

#### Section I Introduction

##### 5–1. Force development

*a.* Force development starts with the operational capabilities desired of the Army as specified in national strategies and guidance such as the DPG, the NMS, The Joint and Army Visions as well as the needs of the unified combatant commanders. It then determines Army doctrinal, organizational, training, materiel, leadership and education, personnel, and facility capabilities requirements, translates them into programs and structure, within allocated resources, to accomplish Army missions and functions. Force development brings together people and equipment, forms them into operational organizations with the desired capabilities for the combatant commander. Force development uses a phased process to develop operational and organizational concepts, and then combine them with technologies, materiel, manpower, and limited resources to produce combat capability. The force development process interfaces and interacts with the JSPS, the materiel systems acquisition management process, the Joint Operations Planning and Execution System (JOPES) (see para 6–3) and the PPBS.

*b.* The U.S. Army Vision calls for a capabilities-based army that performs its mission within a framework of operating concepts and doctrine. Concepts generate questions and hypotheses about the future, while doctrine provides answers about today as well as serving as a basis for evaluating future capabilities. A capability provides the means to accomplish a mission or task decisively. Capability comes from organizations comprised of well-trained people with superior equipment, led by competent leaders employing sound doctrine.

##### 5–2. Force development process

*a.* This chapter explains the Army force development process (Figure 5–1). Force development initiates the organizational life cycle of the Army, and is the underlying basis for all other functions. It is a process that defines military capabilities, designs force structures to provide these capabilities, and translates organizational concepts based on doctrine, technologies, materiel, manpower requirements, and limited resources into a trained and ready Army. The five-phased process includes:

- (1) Generate capability requirements
- (2) Design organizations.
- (3) Develop organizational models.
- (4) Determine organizational authorizations.
- (5) Document organizational authorizations.

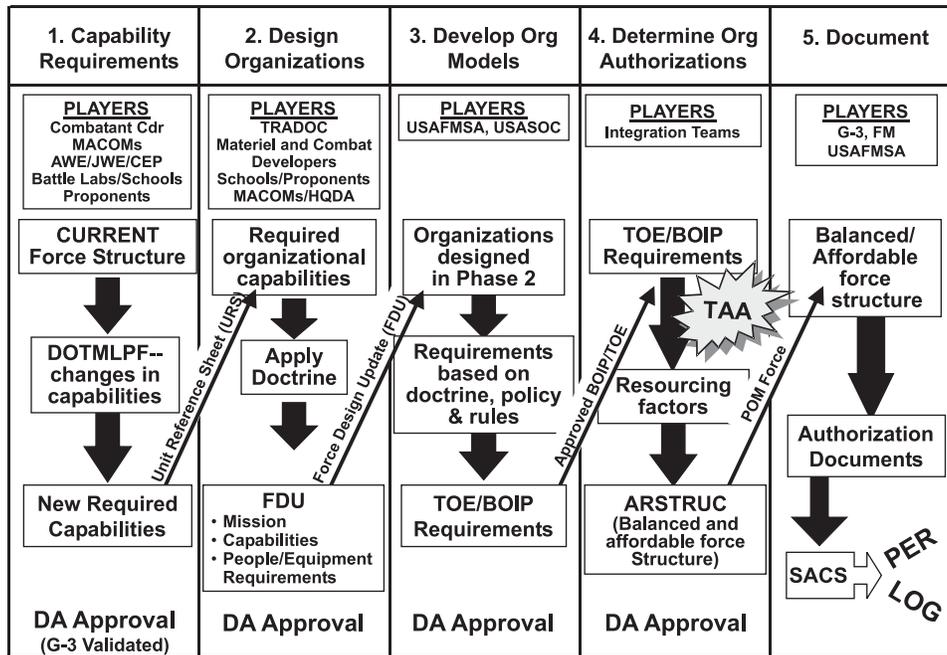


Figure 5-1. Force development process

b. The Army force management chart (Figure 2-2 in Chapter 2) displays a schematic framework of the force development sub-processes as part of the force management process. It is useful to use the Army force management chart to visualize how each process or system relates to others and contributes to the accomplishment of the overall process. The following sections will explain the phases of force development in detail.

## Section II

### Phase I-Generate capability requirements

#### 5-3. Capabilities integration and development

a. The Joint Staff may shortly adopt a functional approach to developing and integrating capabilities within the Joint force. At this writing, the implementing instructions for this approach have not been approved. The reader should consult the latest version of CJCSI 3170 for the most recent Joint terms and process instructions. The Army will adopt a similar functional capabilities approach and the following paragraphs attempt to capture the emerging terminology and process changes. Capabilities requirements generation begins the Army force development process. Requirements generation develops an integrated set of Army DOTMLPF requirements that support our national strategies and guidance, Joint Vision, the Army Vision, TAP, and operational needs of the combatant commanders. This process assesses future concepts in the context of the future operational environment to identify mission needs and solutions.

b. TRADOC has the mission to chart the course for the Army to follow to achieve the objective force. Significant aspects of how TRADOC approaches this challenge are:

(1) A holistic approach to generate requirements based on desired Joint and Army warfighting capabilities versus known deficiencies. This approach must consider the full spectrum of Army operations and functions. This is a substantial change from the previous emphasis on evaluating Army deficiencies against a single, well-defined threat.

(2) Focus on requirements as a change to any DOTMLPF domain, with materiel being the least desirable domain to change because of acquisition costs and schedules.

(3) Employment of a multidisciplinary team effort to better integrate capabilities. The establishment of Integrated Concept Teams (ICTs) will provide that disciplined team effort.

(4) Cost as an independent variable (CAIV) (see para 11-20b(13)) assessment to insure the preferred solution includes an affordable life-cycle cost. The Army cannot expect performance at any cost or have everything it wants. CAIV will not preclude consideration of a new, high potential, leap-ahead technology (often referred to as a “potential silver bullet”).

#### 5–4. Joint concept development

a. The DOD continually upgrades and changes the way it fights so it can maintain battlefield superiority over all adversaries and can achieve complementary capabilities with other nations. We must generate force requirements holistically, driven by warfighting concepts focused on the future and experimentation in our battle labs to provide us insights to discern viable requirements. The process begins with a concept and ends with the proposed solution to a mission need.

b. Recent changes to the Joint and Army concept development processes will change the way concepts drive requirements. In the past concepts have come from the bottom up with interoperability and integration into joint warfighting performed late in the process. The new joint and Army concept development processes will change to become top-down driven. The Joint Staff and JFCOM are developing joint operating concepts. These concepts capture desired joint capabilities. They will also define joint common concepts and architectures to set the stage for service operating concept development. Concepts authoritatively describe:

- (1) The operational environment
- (2) How the force operates
- (3) Essential force characteristics, attributes and design parameters
- (4) Required capabilities

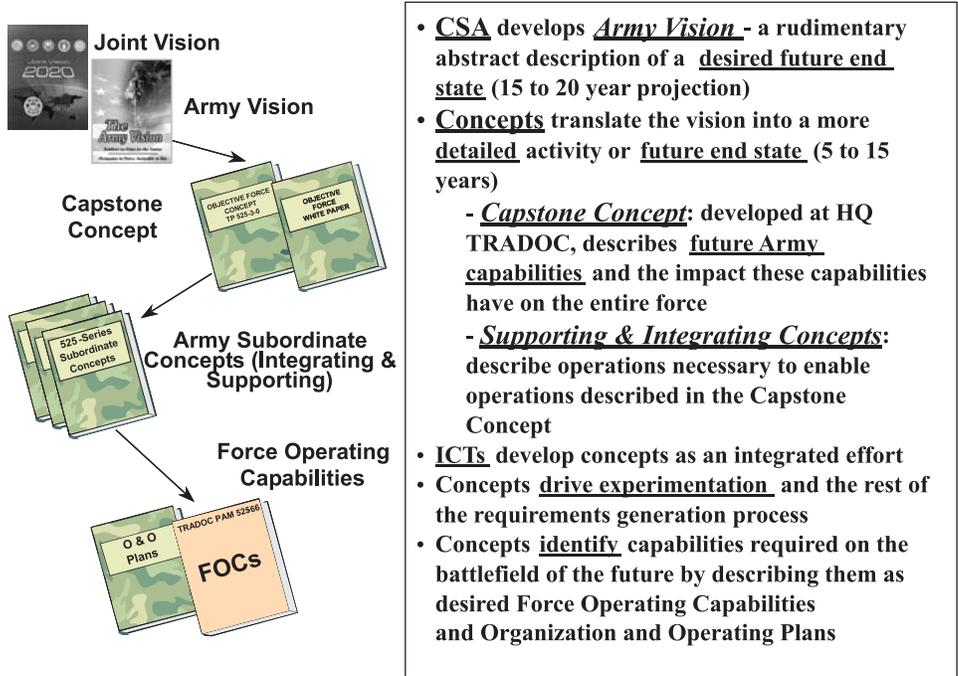
c. Architectures will be living documents that communicate a concept to developers. Architectures will develop at three levels, operational, systems, and technical architectures. The operational view depicts key operating concepts and how associated capabilities are related; describes process description, identifies operational nodes and organizational relationships. The systems view depicts where functions take place within the operational view process, map systems to functions and system-to-system interfaces. The technical view catalogs design standards and interface protocols sorted by functions identified in operational views.

d. Joint Vision. The CJCS issues a Joint vision that provides a conceptual overview of the armed forces for the future. The Joint vision establishes the initial conceptual template for how the forces will channel the vitality of their people and leverage their technological opportunities to achieve new levels of effectiveness in joint warfighting. The vision recommends concepts for operating within the projected security environment.

e. Joint capabilities development focuses on ensuring the joint force commander has the proper support to perform assigned missions across the range of military operations. The Joint Staff is developing an integrated collaborative process, based on top-level strategic guidance, to guide the development of new force capabilities. This process will take strategic guidance and translate it into joint concept of operations and integrated architectures to provide the basis for subordinate concept development as well as to provide a construct for prioritizing competing capability solutions. The capstone joint concept of operations will help to clarify the chairman's expectations for future joint force development. The overarching concept of operations will guide the development of subordinate joint operating and functional concepts. These concepts will further articulate the detail needed to conduct experimentation, assessment and measure effectiveness. The intent of these efforts is to formalize a "top-down" force development process that will insure capabilities are "born joint."

f. Transformation to the objective force. Today, *The Army Vision* provides the broad direction for the transformation of the Army to meet the exceptional challenges of our changing national security environment. *The Army Vision* states the way ahead for transforming our Army as an abstract description of a desired goal and it integrates the Joint vision and Army requirements to accomplish the Army role in that vision. It is influenced by national security and military strategies, with science and technology (S&T) providing a frame of reference. It is a conceptualization that integrates and leverages IT, redesigns the tactical forces, and re-engineers institutional forces while retaining legacy warfighting capability, by divesting in the near term, while organizing and equipping to operate in the far term. At the same time, *The Army Vision* seeks to develop future capabilities to achieve an end state of an Army that operates across the full spectrum of military operations. The Transformation Campaign Plan captures the details of how we implement *The Army Vision* across the force.

g. Army Capstone concept. TRADOC translates the vision into a capstone concept. This still abstract, but much more detailed description of future operations is published in TRADOC Pamphlet 525–3–0, *Objective Force Concept*. HQ TRADOC forms an ICT to develop the capstone concept. The ICT comprises members from TRADOC, AMC, other Army commands, HQDA, other military Services, academia, industry, and others—taking advantage of the synergy of the group to translate the commander's vision into the next level of detail. The capstone concept reflects direct linkage to the NMS, DPG, the Joint vision, TAP, and other guidance documents. In this context, the capstone concept becomes the primary guide for all other Army concept and capabilities development. (As illustrated in figure 5–2).



- **CSA** develops *Army Vision* - a rudimentary abstract description of a desired future end state (15 to 20 year projection)
- **Concepts** translate the vision into a more detailed activity or future end state (5 to 15 years)
  - **Capstone Concept**: developed at HQ TRADOC, describes future Army capabilities and the impact these capabilities have on the entire force
  - **Supporting & Integrating Concepts**: describe operations necessary to enable operations described in the Capstone Concept
- **ICTs** develop concepts as an integrated effort
- Concepts drive experimentation and the rest of the requirements generation process
- Concepts identify capabilities required on the battlefield of the future by describing them as desired Force Operating Capabilities and Organization and Operating Plans

Figure 5-2. Army concepts

### 5-5. Capabilities based requirements generation

The three major phases of capability requirement generation are the Functional Area Analysis (FAA), the Functional Needs Analysis (FNA) and the Functional Solution Analysis (FSA). The product is a Functional Area Plan (FAP) delineating a modernization roadmap that satisfies the identified needs over the desired timeframe. (Figure 5-3) Once developed, these plans produce timely input to the materiel acquisition and resourcing processes. Future operating concept development begins with an analysis of the future operational environment (OE). This analysis describes the physical, demographic, political, economic, technological and military conditions in which the U.S. Army will operate during the next two decades. The OE results from an analysis of military and civilian documents, classified and unclassified, that describes future world conditions. Analyzed through the lens of professional military judgment, the OE serves as a basis for shaping future force capabilities.

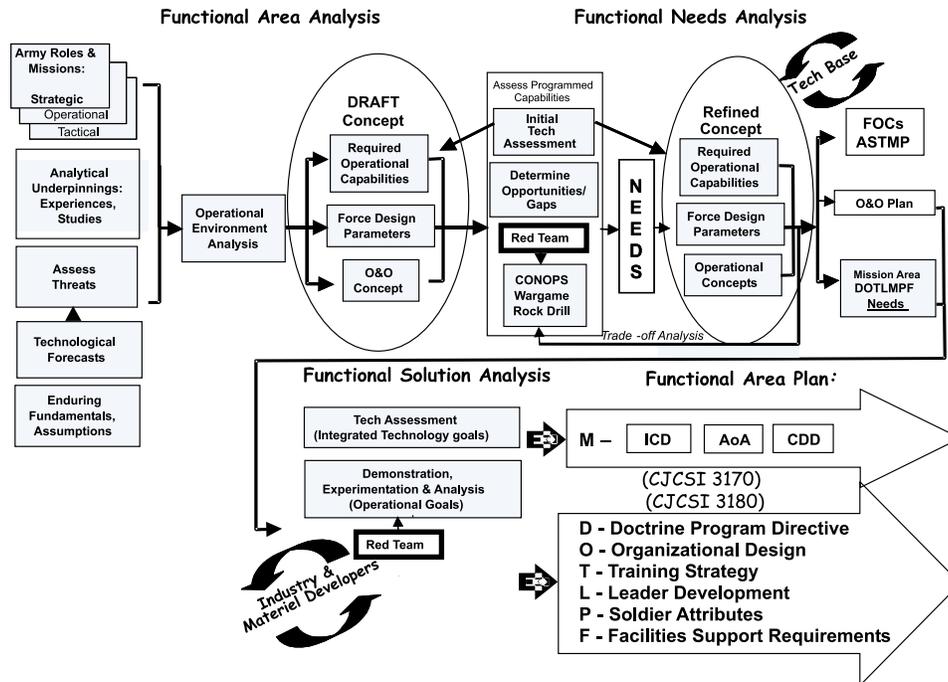


Figure 5-3. Concepts based capability development

a. **Functional Area Analysis (FAA).** The FAA assesses strategy, policy, threat capabilities, doctrine, technology, and other factors in light of the OE to guide development of future force structure, operational concepts, and future operational capabilities. The OE normally is updated shortly after the publication of the Joint Vision and corresponding Army Vision. Using the OE analysis results, TRADOC develops a Capstone Concept to provide a macro-level description of the future Army's operational tasks, required capabilities, force characteristics, and specific mission areas.

(1) Assessed through a series of seminar wargames, the capstone concept guides the development of subordinate concepts (e.g., Unit of Action, Unit of Employment, Maneuver Support, Maneuver Sustainment, Battle Command, Fires and Effects, and others). Because the capstone concept provides a macro-level description of the future Army, detailed subordinate concepts flesh out and clarify the broader concept. Integrating (operating) concepts address requirements in multiple operational environments, whereas supporting (functional) concepts amplify a specific function or describe how to employ a system or conduct a task.

(2) These concepts further refine the basis for studies, experimentation, analyses, simulations, and testing leading to the generation of DOTMLPF solutions to achieve desired capabilities. TRADOC refines these integrating and supporting concepts to identify, develop, and refine all tasks in the assigned functional area. The outcome of the FAA is a detailed set of mission tasks that a force must perform at specific times in the future under specified sets of conditions. Ideally, these missions and tasks tie to both the Universal Joint Task List and an updated Army Universal Task List, which will provide a common framework and starting point for analysis and subsequent evaluations. Additionally, the FAA matures the capstone and subordinate concepts into draft organization and operating (O&O) concepts that embody detailed operational concepts and architectures, organizational design considerations, and desired capabilities.

b. **Functional Needs Analysis (FNA).** The FNA uses the FAA products to assess the future Army's ability to perform each of the operational tasks called for by the concepts. The analysis takes conceptual future needs and evaluates them against current programmed force capabilities. Desired capabilities not met by the force are identified, as mission needs. The FNA employs operational experiments, rock drills, wargames, models and simulations, and other appropriate DOTMLPF analytic tools, alone and in combinations, to analyze the concepts. Examining all desired capabilities against projected resources identifies shortfalls. These resultant mission needs and the draft O&O plan become the basis for further analysis and development of solutions. The O&O plan explains how to execute the concept in more detail, and begins to define how the proposed force should be organized and equipped.

c. **Functional Solution Analysis (FSA).** TRADOC conducts an operationally based assessment of alternative

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DOTMLPF solutions for each mission need. The alternatives to be considered, in order of priority, are changes in DOTLP, then product improvements (PI) (see Chapter 11) to existing materiel or facilities, adoption of other service and/or foreign materiel, and finally, development of new materiel or facilities. An early step in the process is soliciting industry for proposed solutions to the needs identified in the FNA. TRADOC establishes desired Force Operating Capabilities (FOCs) as the foundation upon which to base the assessment process. These critical, force-level, measurable statements of operational capability frame how the Army will realize objective force operations as stated in the approved capstone concept.

(1) The FOCs focus the Army's Science and Technology Master Plan (ASTMP) and warfighting experimentation. (For more details on science and technology see chapter 11). TRADOC Pamphlet 525–66 catalogs the FOCs. All warfighting requirements must have linkage through an FOC to an approved subordinate concept supporting the capstone concept and *The Army Vision*. As the process unfolds, these force-level objective concepts will give rise to organization and operating concepts and subordinate functional and enabling concepts.

(2) The FSA describes each alternative's ability to satisfy the need and describes the contribution of each alternative to the mission area warfighting effectiveness. The FSA also provides an estimate of the expected relative cost of the proposed alternatives to a rough order of magnitude. (Actual cost data are not considered until the Analysis of Alternatives, where it is done formally and thoroughly in support of the requirement approval process. See Chapter 11). The FSA concludes by recommending DOTMLPF solution sets that can resolve each need, focuses key technologies and early (6.1 and 6.2) Science and Technology efforts where no potential solutions currently exist, and produces an O&O Plan.

d. Experimentation, simulation and analysis. Warfighting experiments, simulations, and analysis are key to the requirements generation. When properly planned and executed, warfighting experiments, simulations, and analysis give the Army an unsurpassed means to understand future warfighting capabilities requirements. Progressive and interactive mixes of constructive, virtual, and live experiments combined with operational experience and appropriate analysis yield insights to better define not only warfighting concepts but also requirements across the spectrum of DOTMLPF. Modern simulations allow the Army to look at current and future force capabilities and compare the contributions of alternative solutions. The Army Science & Technology (S&T) program determines the warfighting value of individual efforts of materiel developers relative to FOCs. For more detail on Army S&T see Chapter 11.

e. Functional Area Plan (FAP). HQ TRADOC submits solution sets for ARSTAF validation and CSA approval via the AROC process. After CSA approves development of a formal requirement document(s), HQ TRADOC tasks one or more specified / branch proponents to develop the DOTMLPF requirement document(s). Figure 5–4 illustrates some documents that might initiate resourcing for DOTMLPF domains. This collection of possible solutions forms the plan to reach the desired capability. Although the FAP is not a formal, deliverable document, it will provide a mechanism for TRADOC to track progress toward achieving the desired capabilities over time.

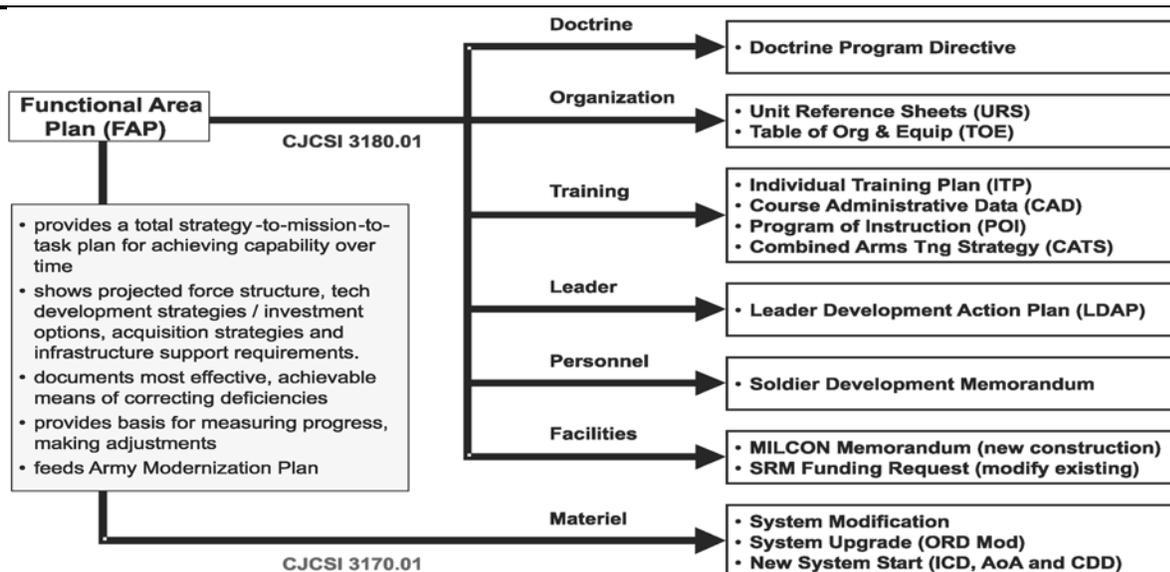


Figure 5–4. Solutions documents

(1) If the proposed solution is a new materiel start, the documented results of these analyses support the Initial Capabilities Document (ICD), the Analysis of Alternatives, the Capability Development Document (CDD), the Capability Production Document (CPD), and structuring of the Acquisition Program Baseline (APB). The analysis of alternatives determines operational effectiveness and costs for all alternatives by looking at the relative contribution each alternative makes to force effectiveness. The analysis of alternatives also identifies trade-offs among cost, performance and schedule. Materiel solutions are examined in an organizational context and can drive changes to organizations, soldier skills, leader skills, and training requirements as well as sustainment and logistics support requirements. Requirements for new materiel emerging from the requirements generation system follow the DOD, CJCS and army guidance for development of materiel operational requirements documents. For more detail see Chapter 11.

(2) A FAP captures the results of the FAA, FNA and FSA. . In capturing the current level of capability and the status of solution sets to needed ones, the FAP also serves as the basis for operational assessments of the programmed force during the POM analysis process. The FAP moves the Army from its current capabilities toward the Objective Force by feeding development of HQDA modernization plans, synchronization and transformation schedules. The FAP also provides a basis for operational assessments of the programmed force during the POM analysis process. Finally, the FAP provides acquisition insights to guide national and Army laboratory efforts, industrial Independent R&D (IR&D) programs and focus resource allocation. Once determined, the FAP does not remain static. The process of developing solutions for required capabilities is a continuous process. In our constantly changing world, the geopolitical environment also constantly changes. Therefore, the conceptual underpinnings for generating requirements require periodic review and update to accommodate the perceived changes in the future operational environment. Requirements generation based upon concepts and architectures is the key to transforming our force structure.

*f.* Overall, the concept based capabilities requirements generation process examines where we are, where we want to be, what risks we may face and what it might cost. The Army learned many lessons from the accelerated processes used to develop the Stryker BCTs. These lessons have helped to shape the informed changes to how we generate force structure requirements. Inserting an up-front and robust integrated analysis based on guidance from overarching Joint concepts allows informed decisions earlier in the process, producing optimal DOTMLPF solution proposals and making it easier to synchronize development and fielding. In addition, this process documents traceability of requirements back to national strategies, concepts and policies helping to eliminate redundant capabilities within the Army and DOD.

## Section III

### Phase II—Design organizations

#### 5–6. Organization design

Organizational requirements flowing from the mission solution analysis determine whether a new or modified organization is required on tomorrow's battlefield. Once identified, organizational requirements are documented through a series of connected and related organizational development processes: URS development; FDU process; TOE development; basis-of-issue plan (BOIP) development, and TAA. Every process may not always be required before organizational changes are made to the force structure.

#### 5–7. The organization design process

*a.* Organizations have their beginnings in warfighting concepts and O&O plans.. They provide the conceptual basis for the proposed organization and address a unit's mission, functions, and required capabilities. The combat developers (CBTDEV) at TRADOC proponent schools, the Army Medical Department Center and School (AMEDDC&S) (see Chapter 19), the USASOC, and the U.S. Army Space and Missile Defense Command (SDMC) develop new organizational designs or correct deficiencies in existing organizations. The TRADOC Commander integrates and validates concepts developed for future force capabilities. These concepts normally address:

- (1) Missions, functions, capabilities, and limitations.
- (2) Command and control linkages.
- (3) Individual, collective, and leader training requirements.
- (4) Sustainment; both in field and garrison.
- (5) Doctrinal impacts.
- (6) Impacts on materiel programs.

*b.* The FDU is used to develop consensus within the Army on new organizations and changes to existing organizations and to obtain approval and implementation decisions (Figure 5–5). On a semi-annual basis, the FDU process addresses organizational solutions to desired capabilities and improvements to existing designs in which other doctrine, training, materiel, leader development, personnel or facilities solutions were insufficient. The FDU serves as the link between the development of the URS and the development of the TOE. During the FDU, the URS is staffed throughout

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the Army to include the Unified COCOM Commanders and Army major commands (MACOMs). HQDA then makes approval and implementation decisions. Force design issues that do not have an offset within current force structure will go through a HQDA force integration functional analysis (FIFA). The FIFA reviews force structure issues and the impacts of force structure decisions.

c. During the FIFA, the ARSTAF analyzes the force, to assess affordability, supportability, and sustainability. At the macro level, within the limits of personnel and budgetary constraints, the FIFA determines the ability for the force to be manned, trained, equipped, sustained, and stationed. The FIFA may provide alternatives based on prior initiatives, unalterable decisions from the Army leadership or program budget decisions (PBD). The FIFA can result in one of three recommendations.

- (1) HQDA can decide to implement the change and find resources.
- (2) Or HQDA can return it to TRADOC for further analysis,
- (3) Or prioritize the issue for resourcing in the next TAA.

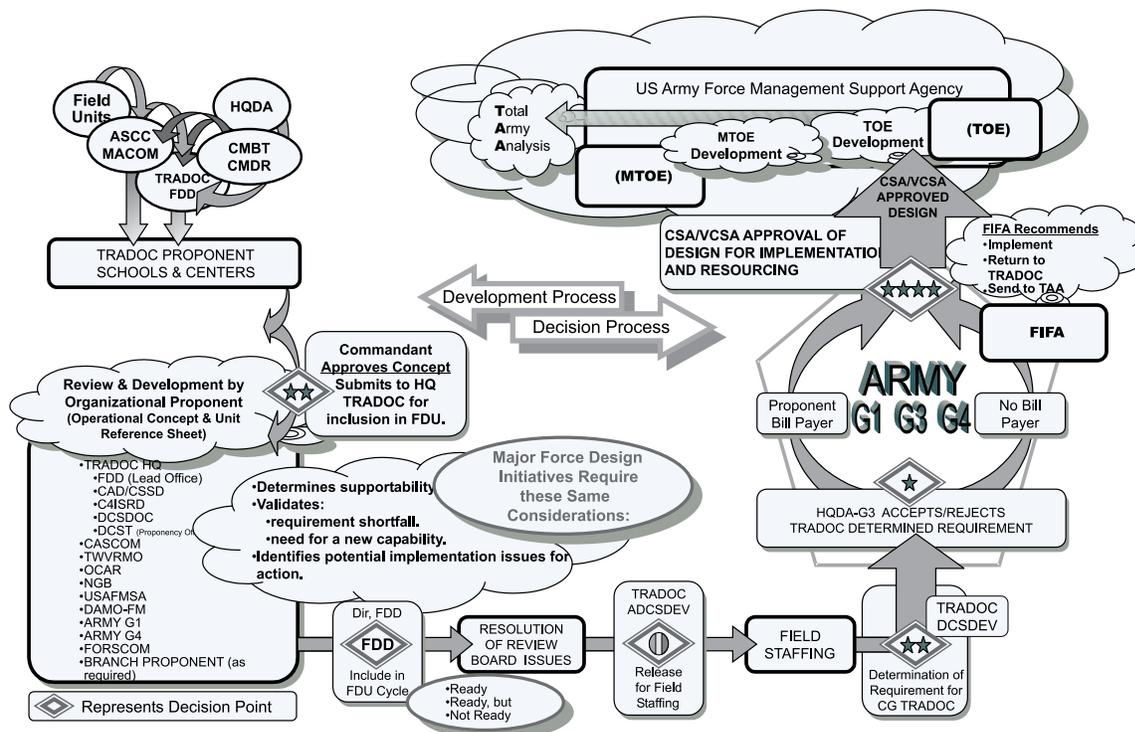


Figure 5-5. Force design update (FDU)

## Section IV

### Phase III—Develop organizational models

#### 5-8. TOE and BOIP developers

a. Organizations designed in the preceding phase become the start point for the next phase. Following approval of the URS during the FDU process, the design goes to USAFMSA for documentation as a TOE. The USAFMSA and USASOC develop TOEs and BOIPs codifying the input from the URS basic design.

b. TOEs and BOIPs are developed using an Army-wide development system and database called the Requirements Documentation System (RDS). A successor system to RDS, the FMS, should reach initial operational capability (IOC) in November 2003. FMS will feature a relational database and many rule-based automated assists to capitalize on available technology to improve and standardize the force development processes.

c. Although the organization design phase and organization model development phase are depicted as separate processes, they are closely related and often conducted very nearly concurrently. The proponent organization designers and the USAFMSA TOE developers work closely to ensure that the designs reflect requirements consistent with doctrine and policy and include all the elements necessary to provide an organization fully capable of accomplishing its

doctrinal mission. The approved organization design should capture personnel and equipment requirements as accurately and completely as possible.

### 5–9. TOE description

*a.* TOEs provide a standard method for documenting the organizational structure of the Army. A TOE prescribes the doctrinal mission, required structure, and mission essential wartime manpower and equipment requirements for several levels of organizational options for a particular type unit. These organizational options provide models for fielding a unit at full or reduced manpower authorizations if resource constraints so mandate. A TOE also specifies the capabilities (and limitations or dependencies) for the unit.

*b.* TOEs provide the basis for developing authorization documents and provide input for determining Army resource requirements for use by force managers. In addition, these unit models establish increments of capability for the Army to develop an effective, efficient, and combat-ready force structure.

*c.* The TOE is a collection of related records in the database. There are a variety of records to include narrative information, personnel requirements, equipment requirements, paragraph numbers and titles, and changes in the form of BOIP records to name a few. A TOE consists of base TOE (BTOE) records, related BOIP records, and an incremental change package (ICP) (see para 5–10b) header.

*d.* Document developers construct a TOE in three levels of organization based on the manpower requirements necessary to achieve the following percentage levels: 100 percent (level 1) minimum essential wartime requirement (MEWR), 90 percent (level 2), and 80 percent (level 3). Equipment quantities for levels 2 and 3 are equal to level 1 except for individual equipment such as protective masks, bayonets, individual weapons, and tool kits issued to mechanics and repairers. Quantities of these individual equipment items are adjusted to correspond to personnel strength levels. As TOE level 1 is the wartime requirement, it is what is reflected in the “required” column of the authorization document (MTOE). TOE levels 2 and 3 are provided as models of a balanced organization available for use during the processes of determining and documenting authorizations.

*e.* FDU decisions, branch proponent input, and MACOM issues, along with force design guidance, developed during capabilities analyses, provide TOE developers with recommended TOE additions/modifications. Policy and doctrine provide the missions and probable areas of use of a unit. Policy includes guidance, procedures, and standards, in the form of regulations, on how to develop TOEs. Policy published in DA PAM 611–21 also contains standards of grade (SG), duty titles, and guidance for occupational identifiers (area of concentration (AOC), MOS, skill identifier (SI), special qualification identifier (SQI), and ASIs used in the development of requirement documents and O&O plans. Doctrine describes how each type of unit will perform its functions and details the mission and required capabilities.

*f.* TOE developers consider the unit mission and required capabilities when applying equipment utilization policies, MARC, SG, and BOIPs, to develop the proper mix of equipment and personnel for an efficient organizational structure. Resource guidance limits the development of draft BTOEs as they must use resources available in the inventory.

### 5–10. Incremental TOE system

The Army uses an incremental TOE system with personnel and equipment modernization over time that reflects how the Army actually conducts its organizational and force modernization business. The incremental TOE system illustrates enhancements the capabilities or increases to the productivity of an organizational model through the application of related doctrinally sound personnel and equipment changes packaged in separately identifiable ICPs. See Figure 5–6. The incremental TOE begins with a doctrinally sound BTOE and, through the application of ICPs, can provide a series of Intermediate TOEs (ITOE) up through a fully modernized Objective TOE (OTOE). The TOE is the basis for force programming and becomes an authorization document (MTOE) upon approval of resources, specific unit designations, and EDATE for the activation or reorganization at HQDA. The incremental TOE system consists of the following components.

*a. Base TOE.* The BTOE is an organizational model design based on doctrine and equipment currently available. It is the least modernized version of a type of organization and identifies mission-essential wartime requirements for personnel and equipment.

*b. Incremental change package .* An ICP is a doctrinally sound grouping of related personnel and equipment change documents that is applied to a BTOE or ITOE to provide an enhanced capability, increased productivity, or modernization that results in a new ITOE or an OTOE.

*c. ICP header.* The ICP header is a listing of all ICPs for a specific type of organization in the sequence of intended application. It depicts a unit’s doctrinal modernization path (MODPATH). The MODPATH is standardized by unit type.

*d. Intermediate TOE.* The ITOE is a transition TOE that results from applying one or more ICPs to a BTOE (or to an earlier ITOE) to produce an enhanced capability. ITOEs form the bridge between BTOE and OTOE and provide the primary tool for programming, executing, standardizing, and documenting the force structure during phased force management.

*e. Objective TOE.* The OTOE is a fully modernized, doctrinally sound organizational model design achieved by

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applying all DA-approved ICPs. The OTOE sets the goal for planning and programming of the Army's force structure and supporting acquisition systems.

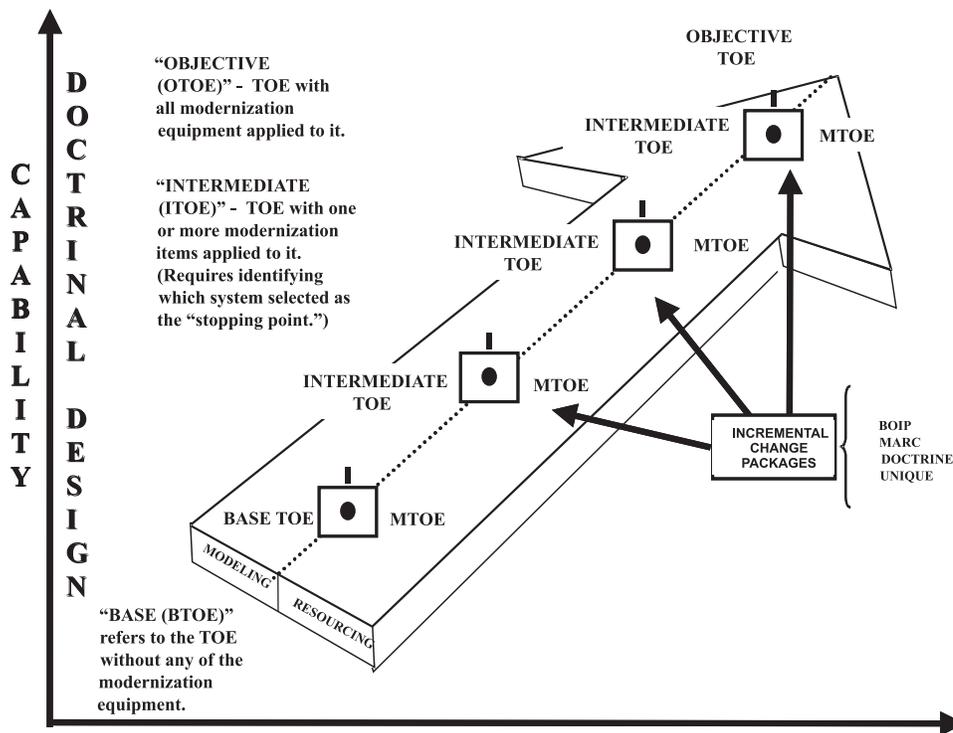


Figure 5-6. Modernization over time (Resource Driven)

### 5-11. TOE review and approval

a. The annual Army TOE Development Plan (ATDP) documents the TOE development and revision process. The HQDA approved plan identifies specific TOEs to be developed or updated during a six-month period.

b. A TOE in the revision, development, or staffing process and not yet DA approved is called a draft TOE (DTOE). DTOEs are reviewed by USAFMSA and coordinated with appropriate commands, agencies, and activities during an area-of-interest (AOI) review. After AOI review, USAFMSA makes final changes before the responsible G-3 OI presenting the DTOE to Director, Force Management for approval. Following approval, the DTOE status is changed to "DA approved" in the RDS database. It will subsequently be included in the Consolidated TOE Update (CTU) file.

c. TOEs are scheduled for revision in the ATDP to accommodate changes in operating concepts, doctrine, introduction of new or improved equipment, or to incorporate more effective organizational designs. If a new TOE does not schedule a TOE for revision or replacement, it becomes eligible for cyclic review every three years.

### 5-12. Consolidated TOE update

BOIPs and TOEs, or changes thereto, are published once a year in the CTU file distributed by USAFMSA. Information from this file is used by USAFMSA authorization documentors to update the requirements information contained in authorization documents for tactical units (MTOE), and to refine planning and program data for the future fielding of new equipment.

### 5-13. Basis-of-issue plan (BOIP)

a. A BOIP specifies the planned placement of new or improved items of equipment and personnel in TOEs at 100 percent of wartime requirements. It reflects quantities of new equipment and ASIOEP, as well as equipment and personnel requirements that are being replaced or reduced. In addition to its use for TOE development/revision, HQDA uses it for logistics support and distributions planning for new and improved items entering the Army supply system. Materiel developers (MATDEV) (see para 11-13e) (Program Executive Officers (PEOs) (see para 11-13)/Program Managers (PMs) (see para 11-14), Army Logistics Command, and USASOC communities) use it as input for concept

studies, life cycle cost estimates, and trade-off analyses during the system development and demonstration phase of the R&D process.

*b.* A BOIP provides personnel and equipment changes required to introduce a new or modified item into Army organizations. The development of a BOIP can play an integral part in TOE development. A BOIP provides the data to place a new or substantially changed materiel item into organizations along with associated equipment and personnel to maintain and operate it as specified in the materiel requirement document and the basis-of-issue feeder data (BOIPFD).

*c.* BOIPFD, prepared by the MATDEV, contains a compilation of organizational, doctrinal, training, duty position, and personnel information that is incorporated into the BOIP. The information is used to determine the need to develop or revise military occupational specialties and to prepare plans for the personnel and training needed to operate and maintain the new or improved item. The BOIPFD also forms the basis for the Operator and Maintainer (O/M) decision. The O/M decision is the responsibility of PERSCOM. The BOIP process begins when the MATDEV receives an approved and resourced CDD. The project manager and/or MATDEV develop BOIPFD, and then obtain a developmental line item number (ZLIN) and Standard Study Number (SSN) from AMC.

*d.* The BOIPFD goes to USAFMSA via the total asset visibility (TAV) system where the information is reviewed for accuracy, continuity, and completeness before the formal development of the BOIP. During staffing, the training impacts associated with the BOIP equipment and the associated personnel requirements are developed. If the O/M decision includes an occupational identifier the personnel proponent must prepare a proposal per AR 611-1 for submission to PERSCOM to revise the military occupational classification and structure. USAFMSA requests TDA requirements for new or modified items from the MACOM and TDA requirements are entered into the BOIP at unit level. Note that BOIPs are not developed for TDA-only equipment. When the BOIP is complete, it goes to DA for approval. The G-8 synchronization staff officer is responsible for HQDA staffing and for presenting the BOIP to the Director, Force Management in the G-3 for approval. USAFMSA publishes approved BOIPs in the CTU released in April of each year.

*e.* There may be several iterations of the BOIP: an initial BOIP, developed during system development and demonstration, and amended BOIPs, which are based on updated information provided by the MATDEV as required. A BOIP may be amended at any time during system development and fielding, upon approval of HQDA, when new or changed information becomes available.

## **Section V**

### **Phase IV—Determine organizational authorizations**

#### **5-14. Determining organizational authorizations**

*a.* The fourth force development phase, determining organizational authorizations, provides the mix of organizations, resulting in a balanced, and affordable, force structure. Force structuring is an integral part of the OSD management systems, PPBS and the JSPS. It is the resource-sensitive process portrayed in the Provide Resources section of the Army Force Management Chart at Figure 2-2. It develops force structure in support of joint, strategic, and operational planning and Army planning, programming, and budgeting. Force structure development draws upon an understanding of the objectives, desired capabilities, and externally imposed constraints (e.g., dollars, end strength, roles, and missions).

*b.* The determination of the size and content of the Army force structure is an iterative, risk-benefit, trade-off analysis process, not all of which is exclusively within the purview of the Army. The national security strategies, NMS, QDR and DPG constitute the major JCS/DOD directives and constraints imposed upon Army force structure. This guidance is captured in TAP.

*c.* The TAP, the principal Army guidance for development of the Army POM submission, articulates the CSA and SECARMY translation of the JCS/DOD guidance to all Services into specific direction to the ARSTAF and MACOMs for the development of the Army POM, and the initiation of the TAA process. The TAP, a HQDA DCS, G-3 prepared document, establishes the types and quantities of organic units within the DPG specified portion of the “operating forces”. Phase I of the TAA process captures the Army’s combat requirements (MTOE), generates the Army’s support requirements (MTOE); develops the Army’s generating force requirements (TDA); and resources the force (MTOE & TDA, all components). TAA develops the echelons above division/echelons above corps (EAD/EAC) support forces of the “operating forces” (i.e.; combat (CBT), combat support (CS), and combat service support (CSS)), and TDA force structure, referred to as the “generating forces”, required to support both portions of the “operating” force structure. Phase II of the TAA process resources the requirements based on Army leadership directives, written guidance, risk analysis, and input from the combatant commanders (day-to-day requirements). The resulting force structure is the POM force, forwarded to the OSD with a recommendation for approval. When Congress approves the budget, all approved units get entered into the SAMAS and documented in The Army Authorization Documents System (TAADS).

#### **5-15. Total army analysis (TAA)**

*a.* TAA is the acknowledged and proven mechanism for explaining and defending Army force structure. It takes us from the Army of today to the Army of the future. It requires a doctrinal basis and analysis, flowing from strategic

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guidance and joint force capability requirements. TAA is a biennial process initiated during even-numbered years. The purpose of TAA is to determine the EAD/EAC support force structure of the “operating force” and define the required “generating” forces necessary to support and sustain the DPG “operating” forces. The determination of the size and content of the Army force structure is an iterative, risk-benefit, trade-off analysis process. The POM force, the force recommended and supported by resource requests in the Army POM, as part of the FYDP, derives from the TAA process. TAA determines the force for each program year. It has Army wide participation, culminating in CSA decision and SA approval.

*b.* The TAA principal products are the:

- (1) Army’s total warfighting requirements.
- (2) Required support forces (EAD/EAC).
- (3) Force resourced against requirements and budgetary constraints.
- (4) ARSTRUC message.
- (5) Initial POM force.

*c.* TAA objectives are to:

- (1) Develop, analyze, determine and justify a POM force, aligned with the DPG and TAP. The POM force is that force projected to be raised, provisioned, sustained, and maintained within resources available during the FYDP.
- (2) Provide analytical underpinnings for the POM force for use in dialogue among Congress, OSD, Joint Staff, Combatant Commanders, and the Army.
- (3) Assess the impacts of plans and potential alternatives for materiel acquisition, the production base, and equipment distribution programs on the projected force structure.
- (4) Assure continuity of force structure requirements within the PPBS and PPBES.
- (5) Provide program basis for structuring organizational, materiel, and personnel requirements and projected authorizations.

### 5–16. The TAA process

TAA supports the fourth force development phase by determining the mix of organizations that comprise a balanced and affordable force structure.

*a.* TAA is the resource sensitive process that executes the decisions of the OSD, directives and initiatives of the Joint Staff, and the Army PPBES. TAA serves as the bridge between OSD/JS guidance and the Army’s forced structure planning and program building processes, balancing the Army’s force structure requirements (manpower and equipment) against available and planned resources. Decisions, as a result of the TAA process, will shape the future size and composition of the Army, are senior leadership-sensitive and made in the best interest of the Army. The Army’s resourced force structure must support strategic guidance. Therefore, TAA develops a force that meets guidance, within the defined scenarios, under the established resource constraints, and fulfills all the roles and missions listed, within the parameters of congressional oversight and guidance.

*b.* Additionally, the TAA process is the means to transition force structure from the planning phase to the programming phase within the Army’s PPBES, assisting in determining, verifying and justifying Army requirements, while assessing force capabilities. The TAA process is flexible and responsive to dynamic changes. The process flows from internal Army actions, decisions and guidance (for example: allocations rules, resource assumptions, warfighting capabilities, and infrastructure priorities), and from external inputs from the President, Secretary of Defense, CJCS, JS, OSD, and combatant commander priorities (for example: anticipated threats, scenarios, and assumptions). The Army develops the POM force to achieve an affordable and competent force capable of best supporting national objectives and combatant commander warfighting needs. This force supports the joint strategic planning conducted by the JS, combatant commanders and the Services at the transition between planning and programming. The mix of unit models (TOEs) 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.

*c.* TAA is a multi-phased force structuring process. It consists of both qualitative and quantitative analyses designed to develop the MTOE and TDA “generating” forces necessary to sustain and support the divisional and non-divisional combat forces delineated in the DPG, the IPS, and the TAP.

*d.* Figure 5–7 depicts the sequence of activities in the TAA process. TAA is a two-phased analytical and subjective process consisting of Requirement Determination (force guidance and quantitative analysis) and Resource Determination (qualitative analysis and leadership review).

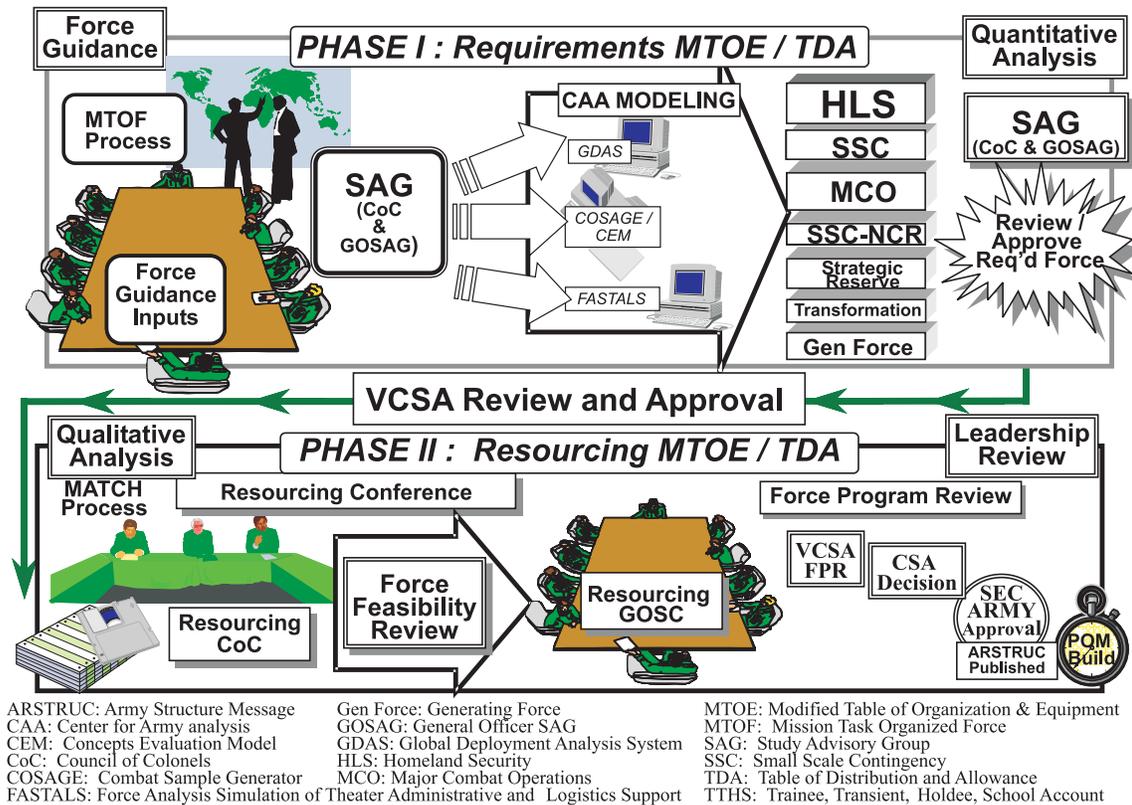


Figure 5-7. Total army analysis process

### 5-17. TAA Phase I—Requirements determination

Requirements determination, the more critical of the two phases, is made up of two separate events: force guidance and quantitative analysis. Accurate planning, consumption and workload factors, threat data, and allocation rules ensure accurate computer developed requirements.

*a. Force guidance.* Force guidance consists of data inputs and guidance from various sources. The DPG and TAP provide the objectives, operational environment, and resource assumptions and priorities. The DPG provides policy, articulates strategic objectives and the NMS, and provides force and resource guidance to the Services, other DOD agencies, and to the combatant commanders. The DPG provides the strategy, force and resources guidance, and scenarios. The force structure guidance identifies the DPG specified portion of the “operating forces”. The DPG also specifies the major combat operations (MCO) and small-scale contingencies (SSC) the Army must address, identified in the DOD directed illustrative planning scenarios (IPS). The War Plans Division (DAMO-SSW) and the Force Management Division (DAMO-FMF) of the HQDA DCS, G-3 and the Center for Army Analysis (CAA), a FOA of the DCS, G-8, use the DPG and IPS to prepare the combat force apportionment that drives the operating and generating force requirements for that TAA cycle. The combat force apportionment dictates the maneuver force needed for the various combat operations and is vetted with the combatant commanders before receiving the HQDA DCS, G-3 approval. These specific combat forces and the EAD/EAC support forces determined during the TAA process are “operating” forces. The DPG “operating” forces constitute the start point for force structuring activities. DAMO-SSW and DAMO-FMF determine the specific identification, size, and composition of the “operating” forces in accordance with TAP force structure guidance.

(1) *Data and guidance inputs.*

*(a) Mission Task Organized Force (MTOF).* The NMS and DPG assign future missions to the Services, which in turn generate force structure requirements. These missions, and requirements, drive the development of MTOFs, ready structured force(s) possessing balanced capabilities adaptable for missions against one or more multi-faceted threat(s). These MTOF requirements develop using a “strategy-to-task” process and are captured in the simultaneity stack for force structure. The tasks in this process are, for the most part, based on the universal joint task list (UJTL). Other

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MTOFs are generated from specific COCOM commander requirements, working groups and workshops, and other relevant documents. DAMO-SSW has staff responsibility for MTOF development and recording.

(b) *Parameters, planning and consumption factors and assumptions.*

1. HQDA DCS G-4, TRADOC, U.S. Army Combined Arms Support Command (CASCOM), the theater MACOMs and other elements of the HQDA staff (G-1, G-3, G-4, G-6 and G-8) provide specific guidance, accurate and detailed consumption factors, planning factors, doctrinal requirements, unit allocation rules, network requirements, weapons and munitions data and deployment assumptions. The parameters, factors, and assumptions are needed to conduct the series of modeling and simulations (M&S) iterations to develop and define the total logistical support requirements necessary to sustain the combat force(s) in each MCO, MTOF, or SSC.

2. The parameters, factors, and assumptions contain theater-specific information concerning logistics and personnel planning, consumption and workload factors, host-nation support offsets and other planning factors crucial to theater force development. A critical step in force guidance development is the update and revision of the planning and consumption factors and assumptions.

(c) *Allocation rules.* Another critical step during the force guidance development is the review and updating of support-force allocation rules used by the U.S. Army Center for Army Analysis during the modeling process (quantitative analysis).

1. These allocation rules, developed by TRADOC and the functional area proponents, represent a quantitative statement of each type of unit (CBT/CS/CSS). An allocation rule is a machine-readable statement of a unit's capability, mission and/or doctrinal employment. Allocation rules are normally an arithmetic statement that incorporates the appropriate planning factors. They are adjusted as necessary to incorporate theater-specific planning factors. There are three basic types of rules:

- Direct input (manual) rules are stand-alone requirements for a unit in a theater. Generally the maneuver force (i.e.; Divisions, ACRs, Separate Brigades, Corps Headquarters and Theater Army Headquarters)
- Existence rules that tie a requirement for one unit to another. Allocation of units based on the existence of other units, or a function of a theater's physical or organizational structure (i.e.; for one large general purpose port: one each Harborcraft Company, one each Military Police Company, etc)
- Workload rules that tie unit requirements to a measurable logistical workload or administrative services in proportion to the volume of those services. (i.e.; one each DS Maintenance Company per 375 daily man-hours of automotive maintenance or one each POL Supply Company per 2200 tons of bulk POL consumed per day)

2. The allocation rules need modification whenever unit TOEs, scenario assumptions, logistical support plans, or doctrinal employment concepts change.

3. Study Advisory Groups (SAG), attended by ARSTAF, support agencies, MACOM and proponent representatives, ensure all allocation rules are appropriate and approved for use in the current DPG scenarios.

(2) *SAGs.* SAGs are decision forums where all the parameters, constraints, data inputs and guidance are identified and approved for inclusion in the current TAA cycle and CAA models.

(a) There are two types of SAGs: council of colonels (COC) and General Officer (including Senior Executive Service) (GOSAG). ARSTAF, MACOMs, TRADOC schools, ACCs, and Field Operating Agencies (FOAs) participate in the COC forums. The senior leadership of the Army participates in the GOSAG. The COC SAG ensures all data input and guidance is appropriate and approved for use in the current DPG scenario(s). The GOSAG addresses those issues that were unresolved at the COC SAG and approves all assumptions, planning factors, allocation rules and guidance as inputs for the second part of Phase I, the CAA modeling.

(b) SAGs review, recommend adjustments and approve inputs and parameters for the modeling conducted by CAA. SAG forums are scheduled to approve the specific data inputs to the CAA computer models and review the warfighting force structure requirements developed through CAA computer modeling as outputs. The format and content of the SAGs are subject to change. However, the forums should approve the related items in these general categories:

1. *Deployment models.* This category focuses on how we model and how we constrain the force. Inputs include the general parameters, modeling for all U.S., allied, and threat forces, and deployment assumptions; all weapons, characteristics, rates of fire, munitions available, and lethality.

2. *Combat modeling.* This category focuses on how we deploy and how we fight the force. Inputs include the combat modeling, approving the priority of flow, requirements versus capabilities, and the campaign plan (warfight and support concept).

3. *Force Analysis Simulation of Theater Administrative and Logistics Support (FASTALS).* This forum terminates the guidance determination when all assumptions, planning factors and guidance inputs are approved for the current TAA cycle. Inputs considered for approval are fuel, ammunition, host nation support (HNS), coalition support, stockage levels, the casualty rates, evacuation policy, and the allocation rules. This category focuses on how we support and sustain the force.

4. *Modeling outputs.* Review and approval is gained through the final SAG. This SAG reviews the force structure requirements developed through CAA modeling. It focuses on reviewing and approving the "required force" file prior

to the VCSA reviewing and approving the “required” force. The required force is prioritized in accordance with the guidance provided in the DPG, QDR, and TAP. The prioritization is referred to as the “Simultaneity Stack”.

(3) *Setting the stage for quantitative analysis.* During the early stages of Phase I, CAA makes several model runs of the Global Deployment Analysis System (GDAS) and Concepts Evaluation Model (CEM) to set the stage for the second part of Phase I, Quantitative Analysis.

*b. Quantitative analysis.* The total warfighting requirements are determined in this phase. CAA, through computer modeling, generates the total requirements for types of units needed to ensure success of the divisions and non-divisional organizations directed in the different scenarios. CAA uses the apportioned force provided in the OSD and Army guidance for employment in the DPG scenarios (IPS). CAA first determines the “support forces” (predominately MTOE CS/CSS force structure at EAD/EAC). The computer models generate resources (units or classes of supply) needed in each scenario. Based on the allocation rules and the requirements generated for units or classes of supply, CAA modeling develops the “support forces” required to ensure success of the deployed divisional and non-divisional units in the warfight, given the assumptions and guidance approved in the SAGs. The DPG directed force structure and the newly determined “support force” is known as the “operating force”. The TAA process then determines the “generating force”. The “generating force” is predominately TDA organizations. CAA develops the TDA force structure required to support the “operating force” (divisional, non-divisional (CBT) and EAD/EAC (CS/CSS) units). CAA accomplishes the modeling of TAA through a series of analytical efforts and associated computer simulations.

(1) *CAA modeling.*

*(a) GDAS- Global Deployment Analysis System.* A strategic deployment analysis, GDAS, is accomplished for each scenario. The CAA models have as their major inputs the available strategic mobility (lift) forces, the joint force(s) requiring movement, the required mobilization and training times for RC forces, and the DPG’s specified desired delivery schedule for the operating force. The major output is the achievable mobilization station-to-port of embarkation-to-port of debarkation to tactical assembly area arrival schedule for all units (CBT/CS/CSS). This becomes one input into the theater combat operations analysis, CEM.

*(b) CEM- Concepts Evaluation Model.* A theater combat operations analysis is accomplished at both tactical and operational levels for each scenario, using the additional major inputs of friendly and enemy weapons’ quantities and effectiveness data, friendly and enemy tactical and operational doctrines, projected resupply capabilities, and available joint and combined forces. Major outputs which become inputs to the theater logistical analyses, FASTALS, include forward line of own troops (FLOT) movement over time, personnel and equipment casualties to the operating force, ammunition expenditures, and brigade/division combat intensities.

*(c) FASTALS- Force Analysis Simulation of Theater Administrative and Logistics Support.* A theater logistical analysis for each scenario utilizes the outputs of CEM as inputs, along with such logistical data as in-place stocks, existing infrastructure and transportation network, available host-nation support, projected consumption rates, unit DS and general support (GS) maintenance requirement factors, and supply, medical, and construction policies to determine time-phased personnel, replacement, medical, material, maintenance, construction, and transportation workloads. In combination with the allocation rules approved by the SAGs, these workloads generate the CS/CSS support force requirements and a time-phased required troop deployment list for that scenario.

(2) *The “Simultaneity Stack”.* The total force requirements include the force requirements identified to successfully defend the United States, deter our enemies within the four critical regions through small scale contingency (SSC) operations, swiftly defeat two near-simultaneous MCOs, achieve decisive victory in one theater when directed by the President, conduct a SSC in a non-critical region (NCR), maintain a strategic reserve, conduct transformation of the Army, and maintain a Force Generating capability (MTOE and TDA) (Figure 5–8).

*(a) OSD guidance and the missions developed by the COCOM commander and staff will determine the force structure required to support HLS.*

*(b) The force structure to deter forward in four critical regions is determined from input from the COCOM commanders. The daily requirements and modeling will determine the end results.*

*(c) The MCOs produce a “time phased” force that includes the “operating forces” and the doctrinal non-divisional support force requirements (fully structured – ALO 1) that sustain the combat forces in the warfight. The force structure is based on the scenarios, the allocation rules, and the doctrinal employment of combat and combat support/ combat service support.*

*(d) The SSC–NCR force structure is determined by the MTOF approved for modeling.*

*(e) Transformation force structure not available for employment is a CSA decision.*

*(f) Strategic Reserve force structure is a CSA decision.*

*(g) The generating force (TDA requirements) include force structure needed to support HLS, the COCOM commanders daily requirements (deter forward), the MCO(s), SSC in Non-Critical Regions, transformation, strategic reserve and the generating force, itself.*

*c. Review and approval.* Phase I (Requirements Determination) is complete after the SAG COC and GOSAG review the CAA computer generated output (total warfighting MTOE and TDA requirements).

(1) The total warfighting requirements, portrayed by FASTALS as a fully structured and resourced force at authorized level of organization (ALO) 1, are reviewed and approved by the COC and GOSAG.

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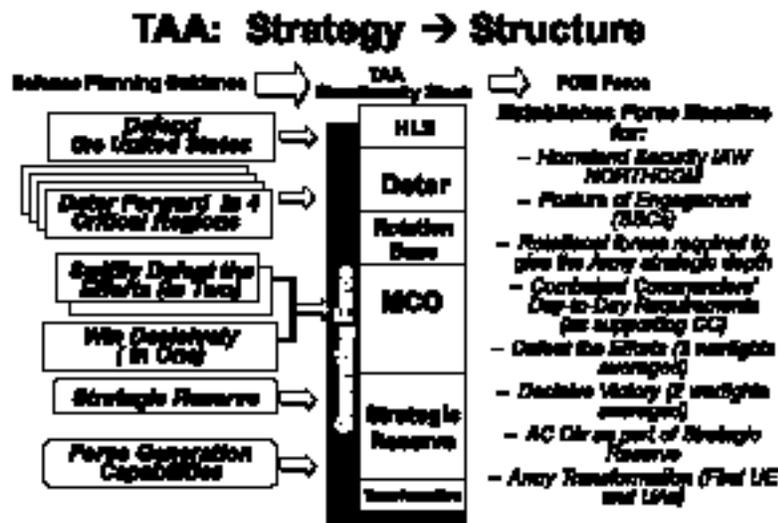
(2) Additionally, the COC SAG and GOSAG review and approve the force structure requirements supporting HLS, all of the SSCs, designated strategic reserve, and units conducting transformation. The GOSAG recommends approval of the force to the VCSA.

(3) The VCSA reviews and approves the "total force requirements" generated through the computer models and recognized within "Simultaneity stack". The VCSA review and approval is the transition to Phase II of TAA (Resource Determination).

(4) After the VCSA reviews and approves the total force requirements, a comparison of data files (MATCH report) is made between the VCSA approved total force requirements (CAA developed) and the current program force (Master Force (MFORCE)) (see para 5-22f).

(a) The MATCH (not an acronym) report provides the delta between the new requirements and the programmed force. The MATCH is accomplished through a computer comparison program. CAA produces the "required MTOE/TDA" force file by combining the troop lists of required forces for the various scenarios ("Simultaneity Stack"), in accordance with guidance provided from HQDA DCS, G-3.

(b) A computer program compares the VCSA approved, doctrinally required, force file provided from CAA with a current list of on-hand and programmed units (MFORCE from SAMAS) to determine the "delta" (COMPO 5) for future programming discussions and issue formulation. The MATCH report and required force files are provided to G-3 for dissemination to the MACOMs for review and issue formulation in preparation for the Resource Determination phase.



### 5-18. TAA Phase II-Resource determination

Resource determination consists of two separate activities: qualitative analysis and leadership review. The qualitative analysis is the most emotional facet of the TAA process because the analysis results in the distribution of scarce resources, impacting every aspect of the Army. Therefore, this phase requires extensive preparation by participants to ensure the best warfighting force structure is developed.

a. *Qualitative analysis.* Qualitative analysis is conducted to develop the initial POM force, within end strength guidance, for use in the development of the POM. A series of resourcing forums, analyses, panel reviews, and conferences consider and validate the FASTALS model generated requirements and the analysis of those requirements. The qualitative analysis is conducted during the resourcing conference. The resourcing conference is held in two separate sessions: COC and General Officer Steering Committee (GOSC).

(1) *Resourcing conference COC.*

(a) The resourcing conference COC provides the initial qualitative analysis and review of the CAA developed force. The resourcing conference COC provides the opportunity for the ARSTAF, MACOMs, proponent representatives and staff support agencies to provide input, propose changes, and surface issues. The issues focus on COMPO and ALO, and center on resolving claimant versus billpayer resourcing issues, while voicing concerns about priorities versus

risks. The active/reserve component (RC) mix and end-strength concerns are key recommendation outputs of this conference. It allows combatant commander representatives (Army component commanders) to verify that theater specific requirements are satisfied by Army force structure assigned/apportioned to their commands to meet current combatant commander OPLAN/CONPLAN warfighting requirements and theater day-to-day requirements.

(b) HQDA action officers and their counterparts enter an intense round of preparations for the resourcing conference. Since the quantitative analysis only determined requirements for doctrinally correct, fully resourced (ALO 1) CBT/CS/CSS units deployed into the theater(s) of operations, the determination of a need for additional nondeploying units, the acceptance of risk through the reduction in ALO of units, and the allocation of resourced units to components (Active Army, U.S. Army Reserve (USAR), Army National Guard) must all be accomplished during the resourcing conferences. HQDA bases force structuring options on an understanding of the objectives to be achieved, the desired capabilities and the constraints. The primary differences among various options are the extent to which risk, constraints and time are addressed.

(c) The resourcing conference is conducted over a 3–5 day period for the MTOE force structure and 3–5 day period for the TDA force structure. The focus is to identify and develop potential solutions for the myriad of issues brought to TAA. The OIs and Force Integrators (FIs) are key individuals in this forum. The OIs and FIs have the responsibility to pull together the sometimes diverse guidance and opinions developed during the conference, add insight from a branch perspective, and establish whether the changes in the building blocks for the design case were in fact the best course of action. The OIs pull all the relevant information together for presentation to the COC over a 2-day period. During these presentations, the OI reviews each standard requirements code (SRC) that falls under his/her area of responsibility, and presents recommendations on how to solve the various issues.

(d) The resourcing conference COC integrates TDA issues and requirements, and reviews and resolves issues based upon sound military judgment and experience. COC submits their product to the FFR process for review by the ARSTAF. The COC forwards their recommendations and unresolved issues, after the FFR process is completed, to the resourcing conference GOSC.

(2) *FFR*. The ARSTAF conducts a FFR during the resource determination phase. The ARSTAF further analyzes the force, initially approved by the COC, via the FFR. The FFR process uses the results of the TAA resourcing conference as input, conducting a review and adjusting the POM force to assure it is affordable and supportable. At the macro level, within the limits of personnel and budgetary constraints, the FFR determines if the POM force can be manned, trained, equipped, sustained and stationed. The FFR process identifies problems with the POM force and provides alternatives, based on prior TAA initiatives, unalterable decisions from the Army leadership, or PBDs, to the GOSC for determining the most capable force within constraints.

(3) *Resourcing conference GOSC*. The qualitative phase culminates with the resourcing conference GOSC. The GOSC reviews/approves the decisions of the resourcing conference COC; reviews the output from the FFR process; and addresses remaining unresolved issues. The resourcing conference GOSC approves the force that is forwarded to the VCSA for review and ultimately forwarded for CSA decision and SECARMY approval.

b. *Leadership review*. After the resourcing conference GOSC meets to resolve any contentious or outstanding issues, the leadership review is initiated through the force program review (FPR) process. The VCSA chairs the FPR resolving any issues forwarded from the resourcing conference forums. The VCSA scrutinizes, reviews and approves the force ultimately presented to the CSA for decision and briefed to the SECARMY.

## 5–19. Army structure (ARSTRUC) message

The ARSTRUC message provides a historical record of Army's Senior Leadership final decisions made during the TAA process. The ARSTRUC message, produced by G–3 Force Management, is directive in nature, providing the MACOMs results at the SRC level of detail. The ARSTRUC message directs the MACOMs to make appropriate adjustments to their force structure at the unit identification code (UIC) level of detail during the next command plan. Command plan changes are recorded in the SAMAS, the official database of record for the Army. SAMAS, along with the BOIP and TOE, provides the basis for Army authorization documentations (MTOE and TDA).

## 5–20. The product of TAA

a. The resourced TAA force represents the force structure for POM development, capturing all components (Active, Reserve, HN) and type (MTOE, TDA) requirements through the end of the POM years. The POM force meets the projected mission requirements with appropriate risk within anticipated end strength and equipment level. The final output should result in an executable POM Force. The Army forwards the POM force to OSD with a recommendation for approval.

b. The product of the TAA and POM processes is the approved force structure for the Army, which has been divided for resource management purposes into components: the AA (COMPO 1), the ARNG (COMPO 2), the USAR (COMPO 3), and unresourced units (COMPO 4). COMPO 4 units, mostly CSS units, are part of the Army's required force structure, but are deliberately unresourced so that available resources can be applied to higher priority peacetime force structure initiatives and other Army programs. Three other components — direct host-nation support (COMPO 7), indirect host-nation support (COMPO 8), and logistics civil augmentation (COMPO 9) — comprise force structure

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offsets. COMPO 7 and 8 are guaranteed by host-nation support agreements. COMPO 9 is an augmentation, not an offset and represents the contracts for additional support and services to be provided by domestic and foreign firms augmenting existing force structure (Figure 5–9).

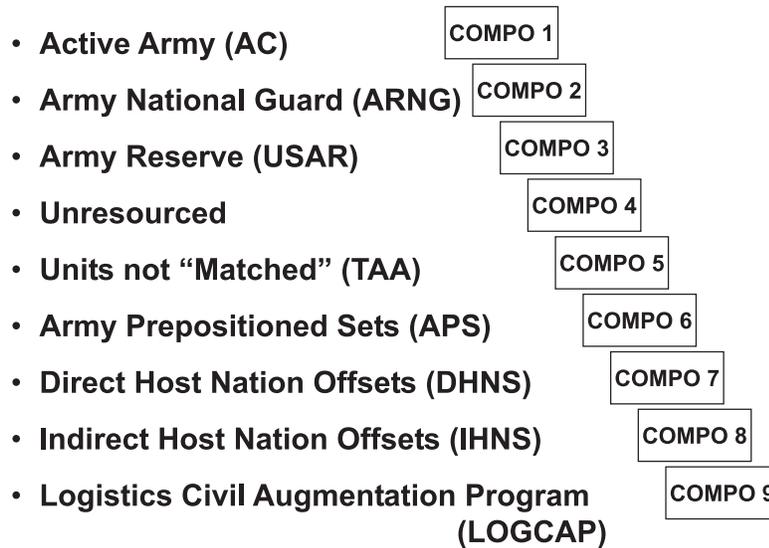


Figure 5–9. Force structure components (COMPO)

## Section VI

### Phase V–Document organizational authorizations

#### 5–21. Documentation components

*a.* The fifth and final phase of force development, the documenting of unit authorizations, can be viewed as the integration of organizational model development and organizational authorization determination. Battlefield requirements for specific military capabilities drive the development of organizational models. The results of this process are TOEs for organizations staffed and equipped to provide increments of the required capabilities. TOEs specify Army requirements. Determining organizational authorizations, on the other hand, is a force structure process that documents resources (people, equipment, dollars and facilities) for each unit in the Army.

*b.* Because the Army is a complex array of people, each with one or more of a variety of skills, and many millions of items of equipment, there must be an organized system for documenting what is required and how much is authorized. More importantly, as the Army moves forward with its equipment modernization program, application of new doctrines, and the development of resulting organizations, the Army must have a way of keeping track of changes that are made so that they may be managed efficiently and with a minimum of turbulence. The Army’s authorization documentation system (TAADS) is the automated system containing all Army unit authorization documents.

*c.* Each unit in the Army has a TAADS authorization document identifying its mission, structure, personnel and equipment requirements and authorizations. These documents are essential at each level of command for the Army to function. A unit uses its authorization document as authority to requisition personnel and equipment and as a basis for readiness evaluation. Authorization documents are used to manage personnel and materiel procurement, force planning, programming, budgeting, training, and distributing. Additionally, authorization documents are used at various levels of command for inspections, surveys, special projects, and studies.

#### 5–22. Structure and manpower allocation system (SAMAS)

*a.* SAMAS is the force development automated data base that records, maintains and distributes force structure information for all 8500+ units in the total Army. SAMAS is the Army’s “database of record” for all force structure actions. It maintains information for all COMPOs.

*b.* The primary inputs to SAMAS are the “operating” forces (divisions, separate brigades, ACRs and special forces groups) directed by the DPG, the “operating” and “generating” forces developed during TAA to support the combat force structure, and generating forces derived during the TAA process.

c. SAMAS has two primary views. One is the force structure (FS) File (commonly referred to as the “force file”), reflecting the approved (programmed and documented) force structure position for each unit in the Army. The force file produces the Army’s MFORCE. The second file is the Program and Budget Guidance (PBG) File (commonly referred to as the “budget file”). The budget file produces the manpower addendum to the PBG.

d. The force file is updated and maintained by the force structure command managers and OIs at HQDA G-3 (DAMO-FM). The force file displays the force structure position for every unit in the Army at UIC, SRC, EDATE, Army management structure code (AMSCO) (see para 9-27b), MDEP, resource operating command, required and authorized strength levels (personnel spaces), MTOE and TDA number level of detail. Additional data items include troop program sequence number (TPSN), unit number and regimental designation, unit description, command assignment code, location code, station name, phase and action codes, required and authorized strength levels, mobilization data, Army force package indicator (FPI) and DA Master Priority List (DAMPL) number. There are approximately 46 total data items for each unit, displayed over-time (previous, current and future programmed and approved actions). SAMAS does not contain MOS and grade level of detail, but drives the development of authorization documents in TAADS, which contains the MTOEs and TDAs at paragraph, line, MOS and grade, line item number (LIN), equipment readiness code (ERC) and quantity level of detail.

e. The budget file is updated and maintained by the RIs/PBG command managers. The budget file contains military and civilian manpower data and represents the manpower for which budget authority is available. The budget file is the feeder system to the HQDA Program Analysis and Evaluation (PA&E) Program Optimization and Budget Evaluation (PROBE) database, which captures the Army’s POM and Budget submissions. The budget file also feeds civilian data to the Assistant SECARMY (Financial Management and Comptroller) (ASA (FM&C)) Civilian Manpower Integrated Costing System (CMICS) where civilian costing is performed for all PPBES events. Primary inputs to the budget file include MACOM command plans, PBD and POM decisions. Primary output of the budget file is the manpower addendum to the PBG. The manpower addendum is normally published three times a year.

f. The Master Force (MFORCE) depicts the CSA-approved current, budgeted and programmed force structure of the Army. As such, it is the authoritative record of the total force over time. The MFORCE is updated and “locked” annually, usually in the June time frame, at the end of the documentation process. The “locked” position becomes the official Army force structure.

### 5-23. The Army authorization documents system (TAADS)

a. Authorization documents. Every Army unit and Army components of other agencies must have an authorization document to reflect an organizational structure that can be supported in terms of manpower and equipment. Authorization documents state a unit’s approved structure and resources, serving as the basis and authority for requisitioning of personnel and equipment. There are two types of authorization documents in the Army: MTOEs and TDAs.

(1) *MTOE*. The MTOE is a modified version of a TOE prescribing the unit organization, personnel, and equipment necessary to perform a mission in a specific geographical or operational environment. It reflects the organizational option selected from the TOE. Thus, the MTOE of a unit organized at the ALO 3 has been based on the Level 3 organizational structure found in the TOE. At unit level, the MTOE is the base document for:

- (a) Requesting personnel and equipment.
- (b) Distributing personnel and equipment resources.
- (c) Unit status reporting.
- (d) Reporting supply and maintenance status.

(2) *TDA*. The TDA prescribes the organizational structure for a unit having a support mission for which a TOE does not exist. TDAs are unique in that they are developed based on the type and level of workloads associated with the unit’s mission. Units with similar missions, like U.S. Army garrisons, may be organized similarly but may have a substantially different mix and number of personnel and equipment authorizations due to differences in the population and composition of the post they support. Beginning in 1999, the development of TDAs fell under TDA Centralized Documentation (CENDOC). Under this initiative, TDA documents are designed and built at HQDA (USAFMSA). This will allow for standardization of unit design for units with like-type missions, provide the ability to conduct supportability analyses and compliance reviews, and enhance the capability to plan and evaluate changes. By 2005 all TDA units in the Army will be centrally documented. Under the TDA category are four specialized types of TDAs.

(a) *Mobilization TDA (MOBTDA)*. The MOBTDA records the mission, organizational structure, and personnel and equipment requirements and authorizations for an Army unit to perform assigned missions upon mobilization. It reflects the unit’s mobilization plan by identifying functions to be increased, decreased, established, or discontinued.

(b) *Augmentation TDA (AUGTDA)*. The AUGTDA records the mission, organizational structure, and personnel and equipment requirements and authorizations to augment an MTOE unit to perform added non-TOE peacetime missions. AUGTDA may include military and/or civilian personnel and/or military or commercial equipment allowances required and authorized to augment or supplement an MTOE unit. An example is the augmentation of the 11th ACR at the National Training Center (NTC), Fort Irwin, CA (see para 15-31b(4)), with equipment authorizations for their “visually modified” (VISMOD) opposing forces (OPFOR) equipment.

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(c) *Full Time Support TDA (FTSTDA)*. The FTSTDA documents military (AC and AGR) and Federal Civil Service positions required and authorized to provide full-time support to RC MTOE and TDA units.

(d) *Joint Table of Authorization/Joint Table of Distribution (JTA/JTD)*. JTAs and JTDs are documents that authorize equipment and personnel for joint activities supported by two or more services. Examples of this would be the Army component for the COCOMs staff or for the Joint Staff.

b. The development and documentation of authorization documents is supported by TAADS. TAADS is a HQDA automated system that contains all unit authorization documents, maintains personnel and equipment data for individual units and the entire Army force structure, standardizes authorization documents for similar parent units, and interfaces with other DA automated systems, e.g. SAMAS, LOGSACS, and PERSACS.

c. The authorization document data maintained in TAADS are organizational structure, personnel, and equipment requirements and authorizations. The basic procedures for documentation are the same for MTOE and TDA units; that is, all unit personnel and equipment requirements and authorizations are written in the same detail. However, the basis for developing the two documents differs.

(1) MTOEs are derived by adjusting/modifying TOEs to meet specific operational requirements. A unit will be organized under the proper level of its TOE to the greatest extent consistent with the mission and the availability of manpower spaces and equipment.

(a) Personnel authorizations are derived from SAMAS, CONPLANS and leadership decisions.

(b) Equipment authorizations are derived from the AMP, fielding time lines and distribution plans.

(2) TDAs are developed to attain only essential manning, the most efficient use of personnel, and the most effective operational capability within the manpower spaces prescribed in the command force structure. Manpower standard applications, manpower surveys, manpower requirements models and change requests, and personnel requirements from BOIPs, are used to structure TDA manpower.

d. HQDA reviews and approves all authorization documents (MTOEs and TDAs) in the TAA and Command Plan processes to ensure compatibility among the unit's mission, capabilities, organization, ALO, and the allocation of resources. Approved MTOEs and TDAs are documented in TAADS and the SAMAS MFORCE.

### 5-24. The force documentation process.

a. The MTOE force structure authorization documentation process begins with documentation guidance released by HQDA G-3 (FM) at the start of the documentation window. The HQDA guidance establishes the focus ("target") of the documentation window and directs documentation of specific units and actions. Under centralized documentation (CENDOC), USAFMSA builds draft MTOEs based on the documentation guidance and forwards these documents to HQDA and the MACOMs for subject matter expert (SME) and command review before being incorporated into the Command Plan process.

b. Under CENDOC, the TDA force structure authorization documentation process will begin to closely resemble the MTOE documentation process. USAFMSA initiates the process with the receipt of HQDA guidance and builds the appropriate draft TDAs to reflect current guidance. The TDAs will be staffed with the MACOMs and appropriate ARSTAF office/agency SMEs before being incorporated into the Command Plan process.

c. The Command Plan Process. Detailed integration and documentation of the force centers on the "command plan process," a yearlong process running from the approved June MFORCE until the next June's approved MFORCE. The Army uses this process to update and create MTOE and TDA documents up to two years out. These documents officially record decisions on missions, organizational structure, and requirements and authorizations for personnel and equipment. The command plan process also updates programmed decisions for the outyears in SAMAS. (See figure 5-10)

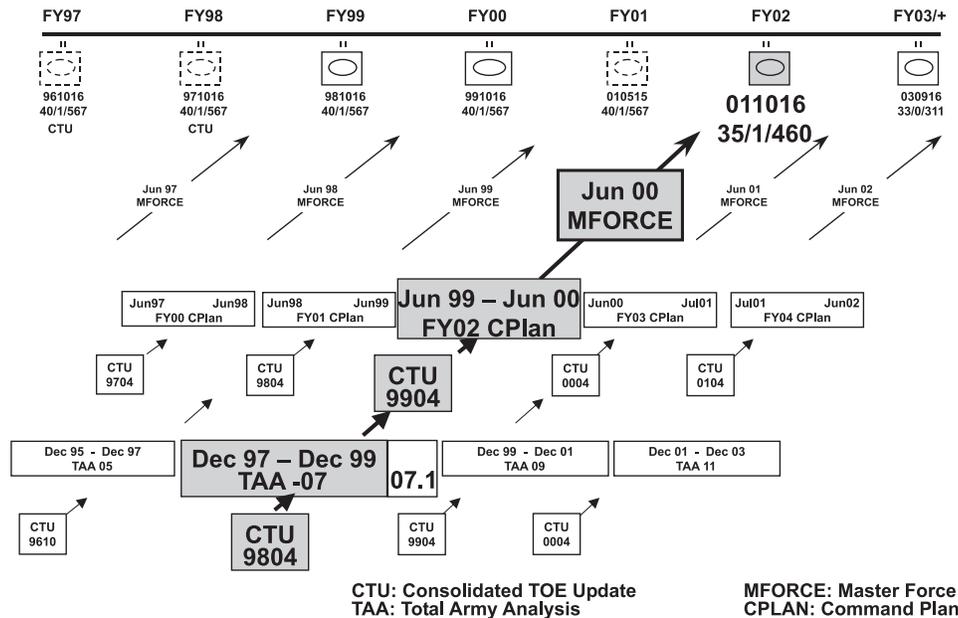


Figure 5-10. The year-to-year flow

(1) The command plan is used to make adjustments between spaces programmed in SAMAS and the proposed draft authorization documents for that cycle. In some cases, two to six years will separate the TAA force programming for a unit and the documentation of the unit. Changes in structure over time necessitate that “bills” and “billpayers” for authorized spaces be identified and adjustments made to balance the Force and budget files in SAMAS with TAADS. Unresolved issues are deferred pending identification of other solutions (delayed implementation, directed military overstrength (DMO), overstructure/undermanning (OS/UM), re-order documentation priorities, as examples).

(2) The command plan is also used by the MACOMs to comply with TAA directed force structure actions and to submit MACOM initiatives. HQ, U.S. Army Reserve Command (USARC) submits a command plan for all USAR units in CONUS (less USAR Special Operations Forces) through HQ, FORSCOM. Force structure issues for USAR units outside of the continental United States (OCONUS) are submitted through the respective MACOM. The National Guard Bureau (NGB) (see para 7-29), in coordination with the State NG HQ, develops the Army National Guard Troop Structure Program (ARNG-TSP). After acceptance by the States, the ARNG-TSP is submitted to HQDA as the ARNG command plan.

(3) Following command plan submission and resolution, SAMAS (both force structure and budget files) is adjusted to the “corrected” strength levels and the draft MTOEs and TDAs, with changes applied, are again forwarded to the SMEs and the MACOMs for review to ensure the agreed-upon positions have been documented.

d. The Reconciliation Process. At the close of each documentation window, the “SAMAS-TAADS compare” is run. The “SAMAS-TAADS compare” reconciles the forces programmed in SAMAS with the authorization documents submitted for approval in TAADS at the aggregate level of detail. Those TAADS documents that match SAMAS programming at UIC, SRC, EDATE, MDEP, AMSCO, and requirements and authorizations strength level of detail (officer/warrant officer, enlisted, civilian), are approved. Approved documents are forwarded to the MACOMs for distribution to the appropriate units. “Disconnected” SAMAS/ TAADS actions are not approved. The MFORCE (approved SAMAS) and approved TAADS documents provide the basis for updating a number of other data bases and systems, including:

- (1) The HQDA DCS, G-1/ U.S. Total Army Personnel Command (PERSCOM) Personnel Management Authorization Document (PMAD).
- (2) The SACS-personnel and logistics.

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(3) HQDA DCS, G-3-Training (DAMO-TR) Battalion Level Training Model (BLTM) and the Training Resource Model (TRM) for developing operating tempo (OPTEMPO) funding.

(4) ASA (FM&C) Army Budget Office (ABO) for civilian costing through the CMICS model and budget estimate submission (BES) preparation.

(5) HQDA G-8 PA&E for POM preparation.

*e.* Organization Change Concept plans.

(1) A CONPLAN is a detailed proposal by a MACOM/Agency to create or change one or more units when the level of change reaches a specified threshold. The purpose of a CONPLAN is to ensure that resources are used to support Army objectives, priorities, and missions. AR 71-32 addresses CONPLANS and provides guidance and formats for submission.

(2) CONPLANS are used to request a new organizational structure, or to request changes in existing organizational structure. The HQDA-approved requirements in a CONPLAN form the basis for requesting additional resources. Types of resources and how they may be requested include: (1) Manpower: TAA or MACOM POM; (2) Equipment: Memorandum request; (3) Funds: MACOM POM; and (4) Facilities : DD Form 1391 (Military Construction Project Data).

(3) A CONPLAN must demonstrate a valid need for change, or demonstrate significant improvement to be realized, in order to warrant creating a new, or reorganizing an existing, organization. CONPLANS are not used to request additional manpower, increases to approved grade structure in the AR 611-series, increases in equipment authorizations, additional funding, or new facilities.

(4) The HQDA approval process for CONPLANS includes an evaluation of the missions, functions, organization, workload data, and required operational capability of the organization affected and the proposed manpower and equipment requirements. Final approval of CONPLANS is accomplished by HQDA G-3 (DAMO-FMP). HQDA approval is the authority to implement the proposal and publish the TAADS document and permanent orders.

### 5-25. Structure and composition system (SACS)

*a.* The SACS, supported by the Force Builder Decision Support System (FBDSS), produces the Army's time-phased demands for personnel and equipment over the current, budget and program years. These demands are then extended for a total of a ten-year period. Additionally, SACS defaults to FY 2050 and builds a fully modernized OTOE position for all units. In this way, SACS shows current levels of modernization, levels achieved at the end of the POM, and a fully modernized Army (for planning purposes).

*b.* Operated and maintained by USAFMSA, FBDSS produces SACS by merging data from a number of management information systems and databases addressing force structure, personnel, manpower, and dollar resource constraints. Specifically, SACS combines information from BOIP, TOE, SAMAS, TAADS and known force structure constraints not included in the previous files. SACS products are the Personnel SACS (PERSACS) and the LOGSACS. Both PERSACS and LOGSACS are at the UIC/EDATE and MOS/grade (GRD)/ LIN/ ERC/quantity (QTY) level of detail for requirements and authorization for MTOE and TDA units. The SACS/Force builders process is shown in figure 5-11.

(1) PERSACS combines data from the SAMAS, TAADS, and TOE systems to state military personnel requirements and authorizations by grade, branch, and MOS/AOC for each unit in the force for the 10 years of the SACS. This data supports planning for personnel recruiting, training, promoting, validating requisitions, and distribution.

(2) LOGSACS combines data from the SAMAS, TAADS, TOE, and BOIP to state equipment requirements and authorizations by LIN and ERC for each unit in the force for the current, budget, and POM years extended for a total of ten years. Authorized/required quantities of currently documented equipment are determined for each unit from its authorization document in TAADS for the first two years of the SACS run. Data for the POM period and beyond is derived from the unit TOE model and data on unit equipment for new developmental items that are undocumented, but planned for inclusion at a later date, are applied through application of the applicable BOIP/ICP file(s). A summary of all unit requirements for a particular LIN, as computed by LOGSACS, is the initial issue quantity (IIQ) of that LIN. FBDSS takes the IIQ input and adds requirements for Army war reserves, operational projects, war reserve stocks for allies and operational readiness float (ORF)/ repair cycle float (RCF) to produce the Army Acquisition Objective (AAO)

*c.* LOGSACS and PERSACS, while products of SACS, are themselves inputs to other processes. The Total Army Equipment Distribution Program (TAEDP), for example, uses equipment requirements and authorizations from LOGSACS to plan equipment distribution. The PMAD, used by DCS, G-1 and PERSCOM for personnel requirements and authorizations, is updated in part by TAADS, but not by PERSACS.

*d.* USAFMSA produces SACS output three to four times per year. These outputs are used to analyze force structure decision impacts on out-year programming in terms of army forces (COMPOs, unit types, and quantities) and unit composition (personnel and force modernization levels).

*e.* SACS output products (PERSACS and LOGSACS) are published after the AUTS process at the end of the command plan cycle. The reconciled MFORCE is the key force structure input to initiate the SACS cycle.

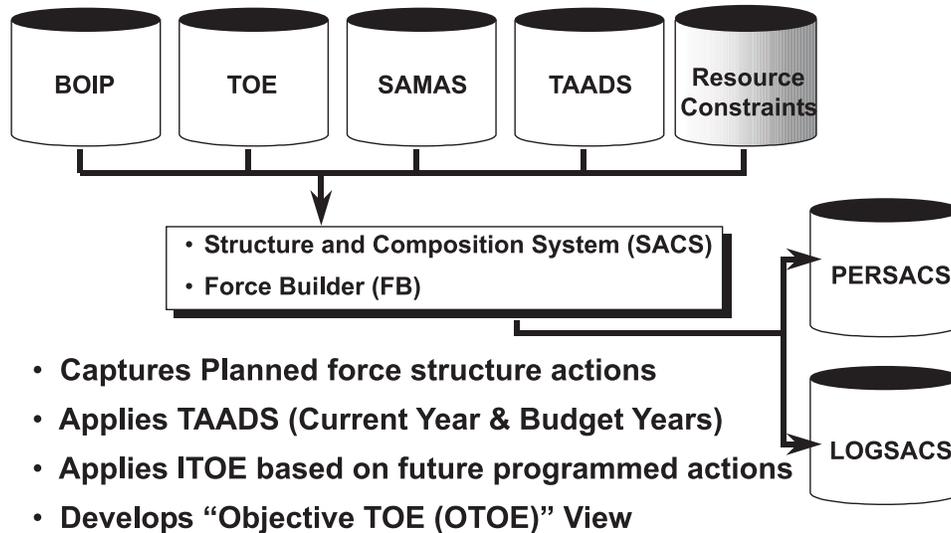


Figure 5–11. SACS/Force builders process

### 5–26. Force management system (FMS).

*a.* The increased complexity of the Army, coupled with the frequency and scope of changes, has made the task of coordinating the various systems and databases that direct, control or document the force increasingly difficult. To meet these challenges, HQDA G–3, Director of Force Management is developing the FMS. FMS will be an overarching automation system that will ultimately replace the existing systems for developing, documenting, accounting, and managing organizational requirements and authorizations. FMS will become the Army’s single database for requirements and authorizations information. FMS will provide capability to plan tactical unit conversions to new concepts and doctrine. It will also support other Army databases such as HQDA DCS, G–1, G–4, G–8, and ASA–MRA with baseline and out-year force structure modernization authorization data. This integrated system will replace the legacy systems, which evolved in the 1970s-80s. The FMS is critical to Force Management missions support to develop organizational models (both operating and generating forces); provide analytical support in determination of organization authorizations, and document organization authorizations across the Army.

*b.* FMS is designed to effectively manage manpower, personnel, equipment, readiness, and force structure decisions and databases. Specifically, FMS will integrate the capabilities of, and then replace, the following systems:

- (1) RDS
- (2) TAADS
- (3) SAMAS
- (4) FBDSS
- (5) PMAD

*c.* FMS brings to the Force Management community interactive tools, use of direct database access, web access technologies, supporting on-line transactions and on-line analysis. These capabilities will be available for daily use by all portions of the Force Management community. FMS is scheduled for Initial Operating Capability (IOC) in November of 2003 and Full Operating Capability (FOC) in September 2004.

## Section VII

### Summary and references

#### 5–27. Summary

*a.* Capability requirements drive what the Army needs to give it the capabilities to deter or conduct operations across the full spectrum of military operations in support of national security objectives. Resources determine the capabilities the Army can afford.

*b.* Force development begins with capabilities requirements generation for doctrine, organizations, training, leader development, materiel, personnel and facilities derived from a concept of how-to-fight/operate (required capabilities).

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These approved requirements initiate the five force development phases: generate requirements, design organizations, develop organizational models, determine organizational authorizations, and document those authorizations. The BOIP and TOE systems provide the organizational models that are the building blocks of force structure. The capabilities based force-structuring process determines the mix of units for a balanced force and how many units the Army can afford in our resource-constrained environment.

c. Finally, the authorization documentation process documents the decisions of the organizational unit modeling and force structuring activities providing the detailed forecast of authorizations that forms the basis for acquiring, distributing, and sustaining personnel, materiel, and facilities in the Army.

d. The past several years have seen significant changes to the force development process. The process of change and how to manage it remains dynamic. This chapter has been a snapshot of a process that needs to remain as dynamic as the environment it supports as we transform the Army.

### 5–28. References

- a. CJCS Instruction 3170.01C, *Joint Capabilities Integration and Development System (JCIDS, (Final Draft))*.
- b. Army Regulation 1–1, *Planning, Programming, Budgeting, and Execution System*.
- c. Army Regulation 71–9, *Materiel Requirements*.
- d. Army Regulation 71–11, *Total Army Analysis*.
- e. Army Regulation 71–32, *Force Development and Documentation - Consolidated Policies*.
- f. Message, HQDA, DAMO–ZA, 221230Z September 1995, Subject: *Revised MTOE Documentation Policy*.
- g. Field Manual 100–11, *Force Integration*.
- h. TRADOC Pamphlet 71–9: *Requirements Determination*.
- i. TRADOC Pamphlet 525–3–0, *Objective Force Concept (Final Draft)*.
- j. TRADOC Pamphlet 525–66, *Force Operating Capability (Final Draft)*.