

Army Regulation 70-1

Research, Development, and Acquisition

Army Acquisition Policy

**Headquarters
Department of the Army
Washington, DC
31 December 2003**

UNCLASSIFIED

SUMMARY of CHANGE

AR 70-1

Army Acquisition Policy

Specifically, this revision--

- o Implements the revised Department of Defense Directive 5000.1, The Defense Acquisition System (12 May 2003), and Department of Defense Instruction 5000.2, Operation of the Defense Acquisition System (12 May 2003).
- o Incorporates Army policy issued since the last publication of this regulation (published 15 December 1997 and effective 15 January 1998). A list of policy statements rescinded as a result of this publication is at appendix B. The appendix also lists policy memoranda that are not rescinded but have contents that have been included in this regulation.
- o Eliminates the designation of Acquisition Category IV (ACAT IV) programs.
- o Incorporates acquisition community support of the unit set fielding directive and the software blocking policy (paras 1-5y, 2-1j, 2-2c, 2-26a(4), 2-26b(12), 2-27d, and 4-2b).
- o Incorporates the totality of Army acquisition, logistics, and technology workforce (AL&TWF) policy (chap 9).

Effective 30 January 2004

Research, Development, and Acquisition

Army Acquisition Policy

By order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

History. This publication is a major revision.

Summary. This regulation implements Department of Defense Directive 5000.1, The Defense Acquisition System, and Department of Defense Instruction 5000.2, Operation of the Defense Acquisition System. It governs research, development, acquisition, and life-cycle management of Army materiel to satisfy approved Army requirements. It applies to major weapon and command, control, communications, and computers/information technology systems, nonmajor systems, highly sensitive classified acquisition programs, and clothing and individual equipment. This regulation is first in the order of precedence for managing Army acquisition programs following statutory requirements, the Federal Acquisition Regulation, Defense Federal Acquisition Regulation Supplements, Department of Defense regulatory direction, and Army Federal Acquisition Regulation supplements. If there is any conflicting guidance pertaining to contracting, the Federal Acquisition Regulation and Defense and Army Federal Acquisition Regulation supplements will take precedence over this regulation and Department of Defense guidance.

Applicability. *a.* This regulation applies to the Army (the Active Army, the Army National Guard of the United States, and

the U.S. Army Reserve). It applies to personnel involved in research, development, acquisition, and support of materiel items and systems. It applies to weapon systems; command, control, communications, and computers/information technology systems; national security systems; special access programs (unless specifically excepted per program charter); computer resources integral to those items or systems; system and nonsystem training aids, devices, simulations, and simulators; embedded training; embedded testing; instrumentation, targets, and threat simulators; and clothing and individual equipment. It applies to command, control, communications, and computers/information technology systems where the Army is the executive agent for another organization or Service or where a command, control, communications, and computers/information technology system is developed cooperatively with other governments unless such organizations can assure their compliance.

b. The portions of this regulation pertaining to the Army's acquisition, logistics, and technology workforce management apply to Active Army, Department of the Army civilians, the Army National Guard of the United States, and Army Reserve personnel serving in designated acquisition positions.

c. The following items are excluded from the purview of this regulation:

(1) Materiel requirements for the U. S. Army Civil Works Program except for information technology.

(2) Functional medical clothing and equipment listed in Common Table of Allowances 8-100.

(3) Those distinctive articles of clothing and insignia worn and used by the U. S. Corps of Cadets at the U.S. Military Academy.

(4) Centrally procured heraldic items in the initial and supplemental clothing allowances (Common Table of Allowances 50-900).

(5) Other items as determined by

Headquarters, Department of the Army and so directed after proper Army Staff coordination.

(6) Medical materiel and information systems that support fixed facility tables of distribution and allowances health care missions within the Defense Health Program, which will be managed under Army Regulation 40-61 and Army Regulation 25-1.

Proponent and exception authority.

The proponent of this regulation is the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. The Assistant Secretary of the Army for Acquisition, Logistics, and Technology has the authority to approve exceptions to this regulation that are consistent with controlling law and regulation. The Assistant Secretary of the Army for Acquisition, Logistics, and Technology may delegate this authority in writing to a chief of an office within the proponent agency in the grade of colonel (O-6) or above or the civilian equivalent (GS-15 or the pay band equivalent NH-IV).

Army management control process.

This regulation contains management control provisions and identifies key management controls that must be evaluated (appendixes D and E).

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, ATTN: SAAL-PA, 2511 Jefferson Davis Highway, Arlington, VA 22202-3911.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, ATTN:

*This revision supersedes Army Regulation 70-1, dated 15 December 1997, and rescinds Army Regulation 70-35, dated 17 June 1988.

SAAL-PA, 2511 Jefferson Davis Highway, Arlington, VA 22202-3911.

Distribution. Distribution of this publication is available in electronic media only and is intended for command levels D and E for the Active Army, the Army National Guard of the United States, and the U.S. Army Reserve.

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Glossary

Chapter 1 Introduction

1-1. Purpose

a. This regulation and DA Pamphlet (Pam) 70-3 implement the Army's acquisition policy for programs in acquisition categories (ACATs) I through III (para 3-2). This regulation assigns responsibilities to Army organizations in accordance with Department of Defense Directive (DODD) 5000.1 and Department of Defense Instruction (DODI) 5000.2. The Army will apply the direction contained in DODD 5000.1 and DODI 5000.2 to all acquisition programs while streamlining and tailoring the procedures within statutory and program requirements.

b. This regulation also specifies Army's acquisition workforce management responsibilities and defines clothing and individual equipment (CIE) acquisition responsibilities.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1-4. Tenets of Army acquisition

a. *Assistant Secretary of the Army for Acquisition, Logistics, and Technology.* The Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) is the Army Acquisition Executive (AAE). The AAE is totally responsible for acquisition matters within the Department of the Army and is the single decision authority for all Army acquisition matters. The ASA(ALT) is responsible for approving all requests to initiate new acquisition programs that are supported by approved capability documents, requisite funding, and program documentation. (App B lists policy statements incorporated into this regulation.)

b. *Milestone decision authority.* In order to ensure clear lines of responsibility and reporting, each Army acquisition program (to include CIE), will have only one designated milestone decision authority (MDA), either the Defense Acquisition Executive (DAE), the Department of Defense Chief Information Officer (DOD CIO), the AAE, or a program executive officer (PEO). This designation is by duty position. These assignments are as reflected in table 3-1. The AAE may delegate MDA for ACAT II programs. The MDA for ACAT III programs is the general officer (GO) or member of the Senior Executive Service (SES) to whom this responsibility has been assigned. MDA responsibility may not be assigned or re-delegated below the rank of GO or SES. All requests for delegation of milestone decision authority for ACAT II programs will be submitted to the Director, Acquisition Policy, SAAL-PA.

c. *Program/Project/Product manager.* A program/project/product manager (PM) is a Department of the Army (DA) command select list (CSL) manager of a system or program. All Army acquisition programs, regardless of ACAT, will be managed by a PM who reports to his or her assigned MDA (that is, the DAE, the DOD CIO, the AAE, or PEO).

d. *Core management issues.* There are certain core management issues that must be formally addressed at the appropriate milestone for every acquisition program. MDAs will rigorously address these core issues before making program decisions:

- (1) Why is the program needed?
- (2) Has the need been validated?
- (3) What specific capabilities are necessary?
- (4) When do the specific capabilities need to be introduced to the field or fleet?
- (5) How much will the program cost, to include the cost of all blocks (under evolutionary acquisition) and retrofit actions to upgrade previous blocks to the latest configuration?
- (6) Is the program affordable and fully funded?
- (7) Have alternative solutions been reviewed, and why was this solution selected?
- (8) Does the Acquisition Strategy adequately describe what is to be developed or produced to the specified capability?
- (9) Has the program's risk been assessed and managed?
- (10) Has a program baseline been developed?
- (11) Is the system or item designed and programmed such that the National Technology and Industrial Base (NTIB) is encouraged to compete using available commercial manufacturing processes?
- (12) Can it be supported?
- (13) Have the stability of the design and the operational capability of the system been verified?
- (14) Has the program's or system's plan been fully coordinated and synchronized with the plans of other applicable programs or systems from a system-of-systems interoperability and interdependency perspective in accordance with the unit set fielding directive and software blocking policy?
- (15) Has the system been determined to be safe, operationally suitable, and logistically supportable?

e. Total life cycle systems management. Under total life cycle systems management (TLCSM), PMs are responsible and accountable for the life-cycle management of their assigned programs. As such, there is no transition of life cycle management responsibility away from the PM. They will manage assigned programs in a manner consistent with the policies and principles articulated in governing regulations, chapter 2, and appendix C.

f. Evolutionary acquisition. Evolutionary acquisition is the preferred approach to satisfying operational needs. The objective is to balance needs and available capability with resources and to put capability into the hands of the user quickly. To facilitate evolutionary acquisition, program managers will use appropriate enabling tools, including a modular open systems approach to ensure access to the latest technologies and products, and facilitate affordable and supportable modernization of fielded assets.

(1) In planning evolutionary acquisition strategies, program managers will strike an appropriate balance among key factors, including the urgency of the capability gap; the maturity of critical technologies; system-of-systems operational and technical factors; and the interoperability, supportability, and affordability of alternative acquisition solutions. The approaches to achieve evolutionary acquisition require collaboration among the user, tester, and developer.

(2) Evolutionary Acquisition Strategy must be based on time-phased operational requirements in the capability document and indicate an initial increment of capability and some number of subsequent increments necessary to provide the full capability.

(3) The Acquisition Strategy for the evolutionary acquisition approach will describe Increment 1 (the initial deployment capability); how it will be funded, developed, tested, produced, and supported; and the approach to treatment of subsequent blocks.

g. Supportability. Supportability is co-equal to cost, schedule, and performance. System supportability must be fully addressed throughout the system acquisition process. Supportability analyses must be conducted as an integral part of the systems engineering process to ensure supportability requirements are identified to optimize total system performance. Supportability planning and execution are a component of the integrated logistics support (ILS) process, as defined in Army Regulation (AR) 700-127.

h. Balanced fielding. The acquisition of a training system that supports a new defense system or piece of equipment will be assigned the same priority as that of the parent defense system or equipment. All MDAs will ensure that all system support costs, including training system, development, and infrastructure upgrades, related to new or modified equipment acquisitions are included in the system's management decision package before approval is granted for fielding. PMs will perform required fielding actions in accordance with AR 700-142. Exceptions to this balanced fielding policy must be approved by the AAE.

i. Integrated Concept Teams and Integrated Process/Product Teams. Integrated Concept Teams (ICTs) and Integrated Process/Product Teams (IPTs) are an integral part of the defense acquisition process. They will be used throughout the acquisition process to produce quality systems. They are the fora within which issues are defined and adjudicated. Information on IPTs are addressed in the DODI 5000.2. Additional information on conducting successful IPTs is contained within "Rules of the Road-A Guide for Leading Successful Integrated Product Teams," dated 21 October 1999, available on the AT&L Knowledge Sharing System (AKSS) at <http://www.acq.osd.mil/ap/21oct99rulesoftheroad.html>.

1-5. General Army acquisition policy and guidance

a. Cost. The default definition of cost for the Department of the Army is life-cycle cost as stated in DOD 5000.4-M: "includes all work breakdown structure elements; all affected appropriations; and encompasses the costs, both contractor and in-house effort, as well as existing assets to be used, for all cost categories. It is the total cost to the Government for a program over its full life, and includes the cost of research and development, investment in mission and support equipment (hardware and software), initial inventories, training, data, facilities, and the operating, support, and, where applicable, demilitarization, detoxification, or long term waste storage."

b. Approval of Army warfighting requirements. Army approval authority for all warfighting capabilities is the Chief of Staff, Army (CSA). All warfighting needs in the form of capabilities documents, regardless of ACAT, will be submitted to Headquarters, Department of the Army (HQDA) for validation and approval. The Army Requirements Oversight Council (AROC) advises the CSA on Army warfighting capabilities (that is, military need and risk, synchronization with the Transformation Campaign Plan (TCP), program affordability, program definition, and interoperability). The AROC reviews capabilities documents, the capstone requirements document (CRD), and operational requirements document (ORD) updates/annexes and makes recommendations on the documents for Army warfighting requirements to the CSA. For documents requiring Joint Requirements Oversight Council (JROC) action the AROC will recommend approval of documents (with or without AROC modification) and forward to the JROC. (See Chairman, Joint Chiefs of Staff Instruction (CJCSI) 3170.01C for criteria.)

c. Streamlining and tailoring. All MDAs will take action to streamline and tailor their programs, to include program documentation, acquisition phases, the timing and scope of decision reviews, and decision levels, within statutory requirements (statutory requirements include Acquisition Program Baseline, Market Research and Technology Development Strategy) unless waived as follows:

- (1) Requests for waivers for regulatory requirements contained in DODI 5000.2 affecting ACATs IC, IAC, II, and III programs will be submitted to the AAE for approval.
- (2) Waivers for exceptions to regulatory requirements affecting ACAT ID and IAM programs will be submitted through the AAE to the DAE, the DOD CIO, or the Director, Operational Test and Evaluation (DOT&E), as appropriate, for approval.
- (3) Statutory requirements cannot be waived unless the statute specifically provides for waiver of the stated requirements.
 - d. Test and evaluation (T&E).* Materiel developers (MATDEVs) must develop a test and simulation strategy that optimizes the use of appropriate types of events to support the acquisition program. Consider use of separate developmental testing and operational testing (DT/OT), combined DT/OT, modeling and simulation (M&S), and alternate test events, as appropriate, to meet program requirements (AR 73–1 and DA Pam 73–1). Evaluation of system performance will be conducted as a continuous evaluation process during the system life cycle to maximize opportunities to collect system performance data in a cost-effective manner.
 - e. Systems acquisition.* MATDEVs must develop and procure systems that are fully compliant with the Joint Technical Architecture–Army and AR 25–1.
 - f. Joint program acquisition for command, control, communications, and computers and information technology.* Procurement or other acquisition of the hardware infrastructure needed by the Army to support its implementation of joint acquisition command, control, communications, and computers/information technology (C4/IT) programs is subject to the oversight and direction of the Army CIO.
 - g. Modeling and simulation.*
 - (1) M&S should be used in a robust, collaborative manner to address system development such that the total ownership cost is reduced, time to field initial operational capability (IOC) is reduced, and military utility and supportability are increased through the collaborative efforts of the requirements, acquisition, T&E, logistics, and training communities.
 - (2) The use of M&S should be carefully considered throughout all modification and upgrade efforts, assessing the impact of upgrades/additions to existing system designs, measuring supportability and military worth.
 - h. Supportability.* System supportability must be fully addressed throughout the system acquisition process. Supportability analyses must be conducted as an integral part of the systems engineering process to ensure supportability requirements are identified to optimize total system performance. Supportability planning and execution are a component of the ILS process, as defined in AR 700–127.
 - i. Army Enterprise Strategy.* Ensure each research, development, and acquisition (RDA) information technology initiative fully meets the requirements of the Clinger-Cohen Act of 1996.
 - j. Environment, safety, and occupational health (ESOH) risk management.* ESOH risk management (that is, identify hazards, assess risks, make risk decisions, implement, and supervise) is the mechanism the Army uses to build effective systems that are as environmentally acceptable, safe, and healthy as possible, given programmatic cost and schedule. PMs will integrate this process into the systems engineering process to allow for timely and informed ESOH risk decisions and to provide a means to inform users of residual hazards, ultimately protecting the force. The programmatic environment, safety and occupational health evaluation (PESHE) will document environmental analyses, system safety risk assessments, and the health hazard assessments used to make decisions for the acceptance of risk. Decisions to accept risks associated with hazards will be made at a management level commensurate with the risk (see table 1–1 for a risk decision authority matrix). The assessment and acceptance will be available at the Milestone Decision Review (MDR). Identified hazards and the status of corrective actions will be recorded, provided to evaluators, and maintained until system disposal.
 - k. Explosive ordnance disposal.* All Army programs for the acquisition of explosive ordnance (including applicable weapon delivery systems) will include the development of explosive ordnance disposal (EOD) technical data (in accordance with the specifications of the single manager), the availability of hardware for EOD validation or verification testing, and the recommendation for the unique tools necessary to render safe and dispose of the explosive ordnance.
 - l. Insensitive munitions.* Munitions survivability is crucial to the success of combat systems. The reactive nature of munitions and combat systems makes them susceptible to degradation and destruction when exposed to stimuli such as fragments and fires. Design features will be developed and introduced via a total systems engineering approach that ensures that all combat system requirements are met while enhancing survivability to unplanned stimuli.
 - m. Pollution prevention.* All Army acquisition managers will establish an environmental management process to integrate pollution prevention into the systems engineering process. This endeavor will be maintained throughout the acquisition process.
 - n. Re-procurement.* Re-procurement of an item is authorized when there is a continuing functional need based on an updated performance specification or purchase description from the last procurement. Re-procurement should not require any research, development, test, and evaluation (RDTE) funds other than 6.5 RDTE funding for market research and associated testing. The combat developer (CBTDEV) or training developer (TNGDEV) will provide a statement of continuing need (SCN) for the item to Deputy Chief of Staff (DCS), G–3 (Requirements) where the

requirement will be validated. As required by DCS, G-3, a revised requirement document may be developed to support the continuing need. The capability document must be validated and approved by the office of the DCS, G-3. An approved SCN will then be provided to the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) for re-procurement action.

o. Special tools acquisition. A special tool is a tool designed to perform a specific task for use on a specific end item or a specific component of an end item and is not available in the common tool load that supports that end item/unit. It is authorized by the repair parts and special tool list (RPSTL) located within that end item's technical manual (TM). (This differs from common tools, which are used on multiple end items and are found in a set, kit, or outfit as authorized by a supply catalog.) Planning for special tools must begin in the development phase and continue after deployment of all weapon systems. The elimination of redundant/duplicate special tools must be a primary system development consideration; success in this area will contribute to reducing the logistics footprint.

p. Use of recovered materials. Acquire, in a cost-effective manner, items composed of the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials (FAR Part 23, Subpart 23.4.)

q. Supply Maintenance Army (SMA)-Operation Support Cost Reduction (OSCR) Program.

(1) SMA-OSCR is defined as the re-engineering/redesign of repair parts that will improve reliability; decrease operating and support costs for depot level repair, secondary items, and repair parts; or extend useful life. The re-engineering is expected to reduce turnover for the items and reduce funding requirements in field operating budgets. The SMA-OSCR program funds projects to re-engineer Army Working Capital Fund (AWCF) SMA managed spare parts for the specific purpose of achieving field operational tempo (OPTEMPO) savings. Secondary items are redesigned/re-engineered for the purpose of lowering unit cost or extending the useful life of the item directly for the field.

(2) The AWCF obligation authority finances the SMA-OSCR program. Funding is contained within the hardware operating cost authority of the wholesale SMA activity group and is limited to SMA-owned-and-stocked secondary items. The program includes all Army managed spares that are procured by either the AWCF or the Defense Working Capital Fund (DWCF). The program consists of individual approved projects funded by SMA-OSCR to perform only nondevelopmental engineering design/redesign efforts that result in a physical hardware application for spares, using existing technology, and extends from the time projects are defined until the project is delivered.

r. Authority of MDAs, PEOs, and PMs. Organizations outside this programmatic chain provide support and advice to acquisition decision makers. If the PEO's/PM's analysis indicates that functional requirements in support of meeting materiel requirements do not add value to the Army, the PEO/PM may require that the functional proponent justify the requirement. The burden of proof for justifying the functional requirement lies with the functional proponent. In cases where the functional requirement is not a statutory requirement (for example, Economic Analysis) and does not result in a clear benefit to the Army, the MDA may exempt the program from the functional requirement. The functional proponent may appeal the MDA's decision to the AAE.

s. Acquisition Strategy (AS). An Acquisition Strategy (AS) is a business and technical management approach designed to achieve program objectives within the resource constraints imposed. It is the framework for planning, directing, contracting for, and managing a program. It provides a master schedule for research, development, test, production, fielding, modification, post-production management, and other activities essential for program success. The AS is the basis for formulating functional plans and strategies (for example, the Test and Evaluation Master Plan (TEMP), the Acquisition Plan, competition, and prototyping). The AS is based upon an approved requirement. The Acquisition Strategy will be developed early in the life of the program, and the PM will achieve an approved AS prior to release of a solicitation or will seek a waiver from the MDA based upon unique program requirements. The solicitation will not be released prior to approval of the AS.

(1) The PM develops a program AS. The AS is coordinated with agencies that support the PM and agencies that will use and support the system when it is fielded, including organizations that will provide backup and emergency long-term support. Coordination must also occur within the joint acquisition community when other Services and joint programs may be affected. The coordinated program AS is approved by the MDA.

(2) PMs must coordinate acquisition strategies with the CBTDEV, TNGDEV, facility developer, testers and independent evaluators, logisticians, life cycle software engineers, ESOH staff, human system integrators (HSI), joint coordination boards (for joint programs), and other matrix support organizations. Other system-specific considerations may make further coordination advisable. These include, but are not limited to, advanced technologies; software engineering; night-vision and electro-optical devices; smart sensors or weapons system signatures; standard auxiliary power units; batteries; environmental control units; shelters; and modeling and simulation.

(3) In planning evolutionary acquisition strategies, program managers will strike an appropriate balance among key factors, including the urgency of the operational requirement; system-of-systems operational and technical factors; the maturity of critical technologies; and the interoperability, supportability, and affordability of alternative acquisition solutions.

t. Capstone requirements document. The CRD provides the means to document common systems requirements, such as overarching interoperability requirements or standards that apply to a family of systems. A CRD will not be used to

establish a funding line; a capabilities development document (CDD)/capabilities production document (CPD) fulfills this purpose. Also, the CRD will not require the traditional program documents since these documents are included in the subordinate systems' capabilities documents. Upon approval, all program Capabilities Documents covered by the CRD will be made compliant with all requirements stated in the CRD (CJCSI 3170.01C).

u. CIO assessment process. The Army CIO/G-6 performs an evaluation on all ACATs I and II and special interest programs for compliance with statutory and Army regulatory requirements. The CIO/G-6 functional organization at the PEO/major Army command (MACOM) performs the assessment on ACAT III and other qualifying programs. The Army CIO/G-6 requires any automated information system (AIS) using the Army Enterprise infostructure (AEI) to obtain "networthiness" certification before the system or capability can be connected to the Army's network (refer to para 7-9). Acquisition requirements are documented in the CIO/G-6 Assessment Criteria and are updated as required based upon changes in statute and Army regulations. PMs provide a self-assessment based on the CIO/G-6 Assessment Criteria that serve as the basis for the required evaluation. In support of ACAT I and ACAT II milestone decisions, a CIO/G-6 assessment memorandum is prepared by the Army CIO/G-6 for annex C of the modified integrated program summary (MIPS). The Army CIO/G-6 has the responsibility to recommend to the AAE the continuation, modification, or termination of Army programs having C4/IT impact. The Army CIO/G-6 evaluates all new C4/information management (IM) systems and systems with embedded information technology (IT). Evaluations are performed to determine that systems being acquired will satisfy the Army's Networthiness Policy and thus comply with the Clinger Cohen Act. PEO/PMs and MACOMs will provide information through the CIO/G-6 Assessment process to support evaluations of both ACAT and non-ACAT systems. A tailored assessment submission may be developed by MACOMs developing non-ACAT systems. In support of ACAT I and ACAT II milestone decisions, a CIO Assessment Memorandum is prepared by the Army CIO/G-6 for annex C of the MIPS. The Army CIO/G-6 has the responsibility to recommend to the AAE the continuation, modification, or termination of Army programs having C4/IT impact.

v. MANPRINT/HSI requirements. MANPRINT/HSI must be fully addressed throughout the system acquisition process. MANPRINT/HSI analyses must be conducted as an integral part of the systems engineering process to ensure MANPRINT/HSI requirements are integrated into the system design, so as to optimize total system performance and minimize life cycle ownership costs. MANPRINT/HSI initiatives, applications, and assessments are the primary mechanism by which risks are identified, resolved or mitigated. Additional information on MANPRINT and the domains can be found in AR 602-2.

w. Contractors on the battlefield. PEOs/PMs will strive to develop systems that do not require the routine assignment of contractor support personnel in the ground maneuver area forward of the division rear (Force XXI) or intermediate staging base of the Interim Division (IDIV). The support philosophy for systems will be in compliance with AR 715-9.

(1) PMs will prepare a support strategy for systems that require contractor support personnel in the forward maneuver area. The support strategy will be reviewed at program initiation (usually Milestone B) and each subsequent decision review and in process review (IPR) up to and including the full rate production decision review. The reviews will include an assessment of operational impact.

(2) Programs past Milestone B that do not have a support strategy will require a waiver, approved by the MDA. The support strategy will be reviewed at the next decision review or IPR for post-Milestone B programs.

(3) The support strategy for any system requiring contractor support personnel in the forward maneuver area (subparagraph (1) above) will include an addendum explaining why organic support cannot be provided. The content of both "assessment of operational impacts" and the "request for waiver" will, at a minimum, include a detailed discussion of the issues germane to the deployment of contractors in support of battlefield operations contained in Army Field Manual 3-100.21 (that is, force protection, life support, transportation). The assessment of the operational impact and the request for waiver will also include a detailed discussion of the contract provisions required to enable deploy/support/redeploy operations; as well as the number of contractors; and cost estimates of this support burden to both the program office and the Army activity requiring the support.

x. Performance-based logistics. Performance-based logistics (PBL) is the preferred support strategy for materiel systems. The Army will implement PBL on weapon systems in order to provide the warfighter increased operational readiness; increased reliability; enhanced logistics response times; enhanced deployment; reduction in the logistics footprint; and reduction in logistics costs.

(1) *PBL implementation strategy.*

(a) The extent and level of detail to which PBL will be applied will be based on a business case analysis (BCA). The BCA will be validated by the Deputy Assistant Secretary of the Army for Cost and Economics, SAFM-CE, 109 Army Pentagon, Washington, DC 20310-0109.

(b) PBL will be implemented on all ACAT I and ACAT II programs, where PBL is proven to be economically and operationally feasible.

(c) PBL will be applied to ACAT III programs at the discretion of the PM, with approval from HQDA.

(d) When a PBL strategy is used, the PM will designate a product support integrator (PSI) to integrate all product support for the system. For new programs the PSI will be identified no later than the system design and development (SDD) phase. For other systems, the PSI will be identified as soon after the BCA has been validated by the DASA-CE.

(e) PBL must be tailored to individual system needs. Where feasible, the PM will integrate their system centric PBL strategy with those of other PMs to form a system-of-systems PBL strategy.

(f) PBL will be executed through performance based agreements (PBAs) with, at a minimum, the using MACOM(s) and the product support integrator (PSI). All PBAs will be approved by the AAE.

(2) *PBL constraints.* The following will serve as constraints in the design and implementation of a PBL strategy.

(a) The approach must be transparent to the field user. Transparency will be determined by any changes in how the field user is trained to perform logistical activities.

(b) Contractors on the battlefield policy will be followed unless a written waiver is obtained as defined in AR 715-9.

(c) The PSI will integrate with existing and future logistics systems, that is, STAMIS and WLMP.

(d) Total asset visibility (TAV) will be maintained.

(e) Standard Department of Defense (DOD) distribution hubs will be used for all contingency and wartime operations.

(3) *Decision criteria for PBL.* All ACAT programs will consider the PBL constraints, identified above, and the following in their BCAs:

(a) The commodity

(b) Service life/life cycle phase

(c) Operational requirements

(d) Statutory provisions

(e) Regulatory provisions

(f) Linkage to higher level strategic plans and their performance measures.

y. *Unit set fielding.* Unit set fielding (USF) is a disciplined systems modernization approach that fields multiple systems with associated software to units during a single modernization window. This approach, which expands on single system modernization policies and procedures, focuses on fielding fully integrated combat capability. USF is the integration and synchronization of the resourcing, planning, preparation, and fielding of a unit set of equipment with associated software to a designated unit. PMs will—

(1) Report all information that indicates or could indicate a schedule slippage.

(2) In accordance with HQDA and the U.S. Army Training and Doctrine Command (TRADOC), develop and synchronize the production and delivery of training subsystem dwyer8 to support the USF windows.

(3) Prioritize requirements in accordance with Army Modernization A Schedule (AMS) and provide displaced equipment transportation estimates to DCS, G-8 (DAPR-FDR) and DCS, G-4 (DALO-TSP) annually to support the program objective memorandum (POM) building process.

(4) Ensure required associated support items of equipment (ASIOE) and components needed for USF are funded, integrated and fielded.

(5) Develop a mechanism to ensure all materiel is operational, compatible, supportable, interoperable, deployable, and trainable before providing such materiel to the units.

(6) Coordinate surveys of installations for range, motor pool, warehouse, training infrastructure, support, facility, information infrastructure, requirements. These requirements are then submitted to MACOMs; DCS, G-3; and DCS, G-8 for inclusion in the POM build.

(7) Participate in the DCS, G-8 chaired synchronization committees.

z. *Software blocking policy.* The Army software blocking policy establishes the mechanism that the Army will use to ensure requirements and system developments are harmonized during program execution. The policy extends to all systems that exchange information regardless of their place in the life cycle. This includes not only systems in development but also those being maintained through post deployment software support (PDSS). The only exception is business systems that do not exchange information with tactical command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems. All MDAs will provide a software blocking assessment that will be submitted for validation by the software blocking (SWB) GOSC tri-chairs (that is, the ASA(ALT); the DCS, G-6; and the DCS, G-8). This assessment will be performed in accordance with the SWB evaluation process and any guidelines produced by the SWB SoS Oversight Committee and will be used at each milestone decision. The SWB process to obtain all system of systems component systems will be used for all USF and subsequent fieldings.

Table 1-1
ESOH risk decision matrix

		HAZARD PROBABILITY				
		FREQUENT	REASONABLY PROBABLE	OCCASIONAL	REMOTE	IMPROBABLE
		A	B	C	D	E
SEVERITY	CATASTROPHIC	HIGH				
	CRITICAL	HIGH				
	MARGINAL	MEDIUM			LOW	
	NEGLIGIBLE				LOW	

RISK ACCEPTANCE BY:

HIGH : AAE or designee.

MEDIUM: PEO or equivalent with concurrence of CBTDEV proponent CDR.

LOW: PM or equivalent.

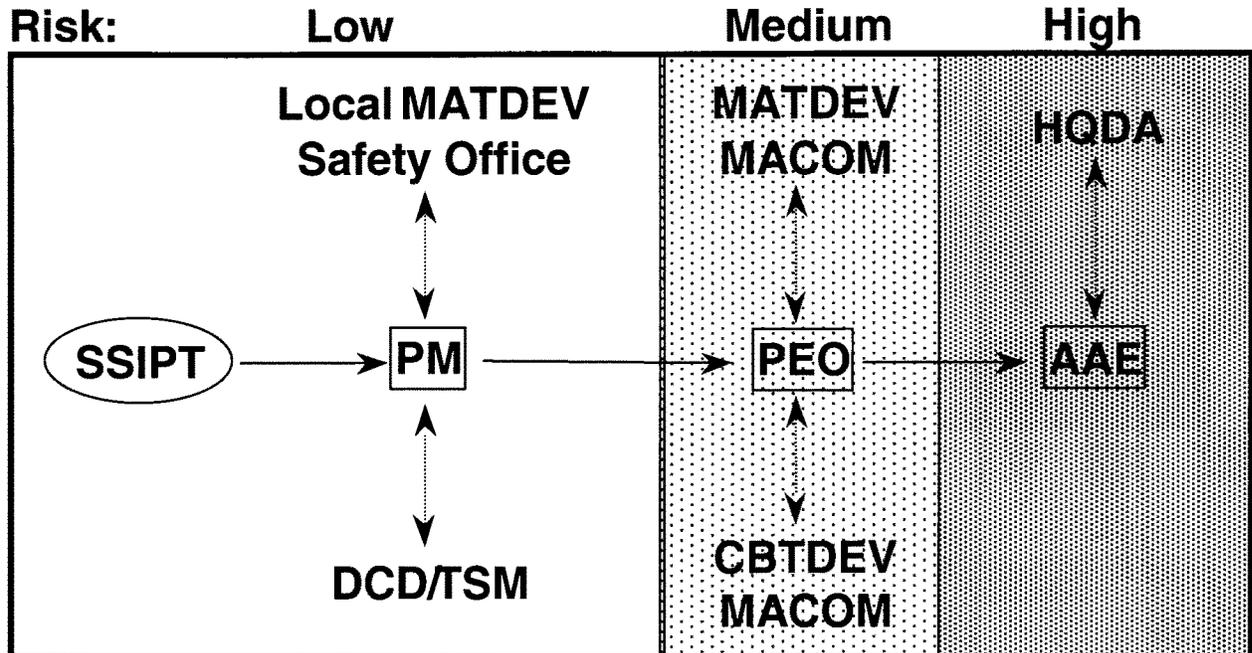


Figure 1-1. System risk assessment coordination process

Chapter 2 Responsibilities

Section I

Army Acquisition Executive, Program Executive Officers, and Program, Project, Product Managers

2-1. Army Acquisition Executive

The Army Acquisition Executive will—

- a. Administer acquisition programs in accordance with DOD policies and guidelines.
- b. Develop and promulgate acquisition policies and procedures.
- c. Establish and maintain the Army Acquisition Corps (AAC). Act as the final authority on all matters affecting the Army's acquisition system, except as limited by appropriate authority.
- d. Establish and chair the Army Acquisition Career Program Board to advise and assist in managing the accessions, training, education, retention, and career development of military and civilian personnel in the acquisition, logistics, and technology workforce (AL&TWF) and in selecting individuals for the AAC. The board will review and make recommendations on waivers authorized by statute. The board is established pursuant to the authority of Section 1202, Title 10, United States Code (10 USC 1202) and Section 1706, Title 10, United States Code (10 USC 1706).
- e. Appoint a Director, Acquisition Career Management in the office of the AAE to assist the AAE in performing duties with respect to the Army acquisition workforce (AAW).
- f. Appoint, supervise, and evaluate assigned PEOs and direct-reporting PMs.
- g. Serve as the MDA for ACATs IC, IAC, and II programs.
- h. Review and approve, for ACAT ID and IAM programs (table 3-1), the Army position at each milestone decision before the Defense Acquisition Board (DAB) review or DOD CIO review. This includes the review and approval of acquisition program baselines (APB). The AAE also approves and signs all PEO and PM charters and designates acquisition command billets.
- i. Designate the appropriate level of centralized management and approve any establishment or disestablishment of a program or a PM in the Army acquisition structure.
- j. Ensure compliance with the Army's unit set fielding and software blocking policies.
- k. Provide oversight of the acquisition aspects of the Army's recapitalization effort.
- l. Serve as the MDA for ACAT I through III systems designated for recapitalization (selected upgrade).
- m. For recapitalization—
 - (1) Co-chair, with the Vice Chief of Staff, Army (VCSA), quarterly reviews of the overall recapitalization effort.
 - (2) Approve, with the VCSA, all candidate systems for recapitalization.
 - (3) Approve, with the VCSA, all configuration waivers for recapitalization systems that do not meet the Army recapitalization standard.
 - (4) Approve, with the VCSA, all recapitalization baselines, baseline updates, and breach re-baselines.
- n. Approve and assign software reuse domains and domain management responsibility based on recommendations from the Army CIO/G-6.
- o. Develop safety, health, and environmental risk management processes for materiel development and oversee process implementation to ensure compliance of acquisition, logistics, technology, procurement, the industrial base, and security cooperation programs with ESOH statutory and regulatory requirements; act as the risk decision authority for high-risk residual hazards associated with Army systems. Army implemented the National Environmental Policy Act under Part 651, Title 32, Code of Federal Regulations (32 CFR 651) requirements.
- p. Establish and implement Army horizontal technology integration (HTI) policy. Ensure the impacts on systems issued to and supporting the training base, training aids, devices, simulators, and simulations (TADSS), embedded training, and range and Combat Training Center (CTC) instrumentation systems are fully assessed and their modification or upgrade planned as part of each HTI initiative.
- q. Ensure technical and functional integration and synchronization across assigned programs.
- r. Develop and implement guidance and procedures to institutionalize the integrated use of modeling and simulation throughout the acquisition life cycle of a system.
- s. Co-chair the Army Modeling and Simulation General Officer Steering Committee.
- t. Plan and execute the requirements for health hazard assessments and toxicity clearances per AR 40-5 and AR 40-10.
- u. Review and approve cost analysis requirements descriptions (CARD) for Army programs.

2-2. PEOs and PMs reporting directly to the AAE

PEOs, and direct-reporting PMs will—

- a.* Serve as a MATDEV, have no other command or staff responsibilities, and only report to and receive guidance and direction from the AAE.
- b.* Be responsible for programmatic and the planning, programming, budgeting, and execution necessary to guide assigned programs through each milestone within approved baselines and established exit criteria.
- c.* Provide the planning guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with unit set fielding, the Army Enterprise Architecture (AEA), and software blocking; meet joint interoperability requirements; minimize life cycle cost; and are supported and fielded within cost, schedule, performance, and supportability baselines, providing a coordinated, Army-wide solution.
- d.* Oversee the development, coordination, and commitment to an APB and ensure immediate reporting of all imminent and actual breaches of approved baselines. Include program related operation and support costs in the APB.
- e.* Ensure APBs and solicitations implement the capability document.
- f.* Implement IPTs throughout the acquisition process.
- g.* Provide technical and functional integration across assigned programs. Ensure that functional (matrix) support to subordinate offices and PMs is planned and coordinated with the supporting organizations.
- h.* Supervise and evaluate assigned PMs. Program and project managers will supervise and evaluate assigned project and product managers.
- i.* Exercise the fund control responsibilities of an independent general operating agency.
- j.* Provide the overall management of the test and evaluation activities, to include approval of materiel system readiness certification operational test readiness statements (OTRSs) for assigned systems.
- k.* Establish an environmental, safety, and occupational health management process to ensure the sustainment of acquisition, logistics, technology, procurement, industrial base, and security cooperation programs with ESOH statutory and regulatory requirements.
- l.* For training support—
 - (1) Plan and program resources for development, testing, fielding, and sustainment of all required system TADSS, embedded training, and training/distance learning support products to execute and sustain new equipment training (NET) in accordance with the system's ORD (or capabilities document), the System Training Plan (STRAP), and the NET Plan.
 - (2) Plan and program resources for the modification or upgrade of TADSS and embedded training impacted by modifications, upgrades, or block improvements to assigned materiel systems.
 - (3) Ensure the impacts on systems issued to and supporting the training base, TADSS, embedded training, and range and CTC instrumentation systems are fully assessed and their modification or upgrade planned as part of any assigned HTI initiative.
- m.* Coordinate their PMs' (or their own in the case of direct-reporting PMs) embedded diagnostics acquisition strategies with the PM - test, measurement, and diagnostics equipment (TMDE).
- n.* Support development and re-engineering of all software by integrating software reuse principles (domain specific focus, reuse software engineering, and reuse oriented architectures) into the system software engineering process. Incorporate reuse technology into the system engineering and acquisition processes.
- o.* Serve as the safety officer for assigned systems with the responsibility for proper planning and execution of system safety requirements per AR 385-16 and act as the risk decision authority for medium residual hazards associated with Army systems. Be responsible for identifying all hazards, eliminating or mitigating when possible, and for providing an assessment of hazards that are not eliminated for an assigned program.
- p.* Evaluate ACAT III programs for compliance with statutory and Army regulatory acquisition requirements articulated in the most recent CIO Assessment Criteria.
- q.* Ensure subordinate offices and PMs plan, at an execution level, for the integrated use of M&S throughout the acquisition life cycle of their programs. Such planning should encompass development of digital product descriptions; verification, validation, and accreditation; and collaboration with the requirements, T&E, logistics, and training communities so that information developed via M&S efforts will lead to more informed decisionmaking. Decisions based on analysis conducted using M&S are expected to result in reduced ownership costs and increased supportability and military worth.
- r.* Sign the recapitalization program baseline (RPB). Obtain AAE/VCSA approval of the RPB.
- s.* Fund their PMs in accordance with the RPB, with all allocated recapitalization funding.
- t.* Certify that the recapitalization configuration meets the RPB prior to production and fielding or obtain a waiver from the AAE and the VCSA.
- u.* Manage PM execution on all recapitalization (rebuild or selected upgrade) of systems. Monitor the performance of programs against RPB established cost, schedule, performance, and supportability thresholds.
- v.* Conduct (with PMs) RPB breach analysis and provide recommended solutions to the AAE and the VCSA.

w. Conduct small business outreach activities at least once each year and ensure subordinate offices include small business specialist input in developing the business strategy part of the acquisition strategy.

x. Plan and execute the requirements for health hazard assessments and toxicity clearances per AR 40–10 and AR 40–5.

2–3. Program, project, product manager (PM)

The PMs will—

- a. Serve as MATDEVs and will have no other command or staff responsibilities.
- b. Plan and manage acquisition programs consistent with the policies and procedures issued by the AAE and appropriate regulations, policies, procedures, and standards.
- c. Provide the planning guidance, direction, control, oversight, and support necessary to ensure systems are developed and maintained in accordance with the Army Knowledge Enterprise Architecture (AKEA) and the Army's software blocking process. This will include certification of compliance with the architecture and the software blocking policy to the MDA prior to formal release of the draft and final solicitations. Systems must also satisfy joint interoperability requirements, minimize life-cycle cost, and be fielded within cost, schedule, performance, and supportability baselines. PMs must coordinate their system development and fielding plans with other system PMs in accordance with the Software Blocking Policy.
- d. Develop and submit requirements for financial, manpower, matrix, and contractor support to the AAE through the respective PEO.
- e. Develop, coordinate, and commit to an APB and immediately report all imminent and actual breaches of approved baselines.
- f. Perform cost/performance tradeoff studies and work with the Office of the DCS, G–3 and the CBTDEV to establish new system cost targets.
- g. Prepare and submit timely and accurate program performance reports as required.
- h. For training support—
 - (1) Plan and program resources for development, testing, fielding, and sustainment of all required system TADSS, embedded training, and training/distance learning support products to execute and sustain NET in accordance with the system's ORD (or capabilities document), the System Training Plan (STRAP), and the NET Plan.
 - (2) Plan and program resources for the modification or upgrade of TADSS and embedded training impacted by modifications, upgrades, or block improvements to assigned materiel systems.
 - (3) Ensure the impacts on systems issued to and supporting the training base, TADSS, embedded training, and range and CTC instrumentation systems are fully assessed and that modification or upgrade is planned as part of any assigned HTI initiative.
- i. Through their respective PEO, coordinate their embedded diagnostics Acquisition Strategy with the PM - TMDE.
- j. Coordinate with the appropriate domain managers to ensure that software reuse opportunities are adequately addressed.
- k. Implement IPTs throughout the acquisition process.
- l. For HTI programs, the HTI PM and its host platform PMs must coordinate all planning, programming, and budgeting efforts to ensure their programs remain executable. PMs of designated HTI initiatives and programs will participate on an as needed basis in an advisory capacity in the appropriate Army Systems Acquisition Review Council (ASARC) and pre-ASARC.
- m. Be responsible for weapon system C4/information technology (C4/IT) system configuration management.
- n. Act as the risk decision authority for low risk residual hazards associated with Army systems. Be responsible for identifying all hazards and eliminating or mitigating hazards early in the life cycle when possible and for providing an assessment of hazards that are not eliminated for an assigned program.
- o. Develop, process, and maintain current input of basis of issue plan (BOIP) feeder data in accordance with AR 71–32.
- p. Serve as the safety officer for assigned systems and ensure that a tailored system safety program is implemented for all systems establish a safety system effort following the provisions of AR 385–16.
- q. Plan and perform systems engineering activities intended to prevent or delay exploitation of critical technologies in U.S. weapon systems (for example, software tampering and piracy).
- r. For ACAT I, ACAT II, and special interest programs, perform a program self-assessment utilizing the CIO Assessment Criteria. (The self-assessment is submitted to Army CIO/G–6 for review and evaluation.) Perform a self-assessment for ACAT III programs utilizing the CIO Assessment Criteria. (The self-assessment is submitted to the CIO functional organization within their PEO for review and evaluation.)
- s. Plan, at an execution level, for the integrated use of M&S throughout the acquisition life cycle of assigned programs. Such planning should encompass development of digital product descriptions; verification, validation, and accreditation; and collaboration with the requirements and training communities so that information developed via

M&S efforts will lead to more informed decisionmaking. Decisions based on analysis conducted using M&S are expected to result in reduced ownership costs and increased supportability and military worth.

t. Design, plan, program, coordinate, and execute a viable T&E program in conjunction with the T&E working-level IPT. This will include coordination of the test and evaluation strategy for their respective systems with the U.S. Army Test and Evaluation Command (ATEC).

u. For recapitalization—

(1) Develop all required system recapitalization documentation; develop and sign the system RPB.

(2) Perform program assessment for the AAE and VCSA using the data collection metrics to measure system compliance with the recapitalization standard.

(3) Manage the recapitalization configurations. Certify that the recapitalization configuration meets the RPB prior to production and fielding or obtain a waiver from the AAE and the VCSA.

(4) Execute all directed rebuilds and selected upgrades to a system in accordance with the RPB and the approved documentation.

v. Manage and execute all funds in accordance with the RPB. Ensure that all functions and actions required to support the recapitalization of the system are planned, programmed, and budgeted during the appropriate POM and budget processes.

(1) Conduct, with the PEO, RPB breach analysis and provide recommended solutions to the AAE and the VCSA.

(2) Coordinate, with AMC, the RPB prior to approval for supportability. Execute, in coordination with AMC, a depot/industry partnership agreement.

(3) Ensure allowance for embedded diagnostics and prognostics, automated information technology, and TADSS are considered as baseline configurations.

(4) Develop and acquire targets, threat simulators, and major test instrumentation for both DT and OT except for items related to space and missile defense systems. Major instrumentation is defined as costing \$1 million per year or \$5 million over the life of the project.

w. Establish an environmental management process to ensure the sustainment of acquisition, logistics, technology, procurement, industrial base, and security cooperation programs with ESOH statutory and regulatory requirements; resolve environmental issues using performance-based systems engineering solutions where economically feasible to the program; serve as the safety officer for assigned systems with the responsibility for proper planning and execution of system safety requirements per AR 385–16; and act as the risk decision authority for medium-risk residual hazards associated with Army systems.

(1) Ensure corrosion prevention control is an integral part of the acquisition process for new systems and rebuild systems. Ensure the most appropriate and economical corrosion control technologies are included in the weapon system design.

(2) Plan and execute the requirements for health hazard assessments and toxicity clearances per AR 40–5 and AR 40–10.

x. PMs will comply with statutory provisions of Title 10, to include the core logistics capability statute, Section 2464, Title 10, United States Code (10 USC 2464) and the “50/50” statute (10 USC 2466). PMs will document compliance with these statutory provisions. Assess the ability of the industrial base to support the life-cycle requirements for an assigned program. Develop and implement a strategy to encourage industry to compete, invest and modernize the industrial base for assigned programs.

y. PMs will document and retain the methodology as to how the direct maintenance man-hours, such as direct maintenance man-hours from previous or like-item equipment, as well as any adjustments, were developed and ensure that maintenance supportability is considered throughout the milestone decision review process.

Section II

Headquarters, Department of the Army Elements

2–4. The Chief of Staff, Army

The Chief of Staff, Army (CSA) will—

a. Serve as the MDA for clothing bag, mess, dress, service, and optional purchase uniform items.

b. Approve all warfighting requirements.

c. Approve major warfighting concepts designed to guide force modernization, (that is, Brigade Combat Team or higher Organizational Concepts).

2–5. The Vice Chief of Staff, Army

The Vice Chief of Staff, Army (VCSA) will—

a. Convene and chair the Army Requirements Oversight Council.

b. Serves as the Army’s representative on the Joint Requirements Oversight Council.

- c. Provide oversight for the approval of requirements validation, prioritization, and fielding of Army recapitalization programs.
- d. Co-chair, with the AAE, quarterly reviews of the overall recapitalization effort.
- e. Approve, with the AAE, all candidate systems for recapitalization.
- f. Approve, with the AAE, all configuration waivers for recapitalization systems that do not meet the Army recapitalization standard.
- g. Approve, with the AAE, all recapitalization baselines, baseline updates, and breach re-baselines.

2-6. Assistant Secretary of the Army for Acquisition, Logistics, and Technology

The Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) will—

- a. Serve as the Army Acquisition Executive, the Senior Procurement Executive, the Science Advisor to the Secretary of the Army, and as the senior research and development (R&D) official for the Department of the Army. The ASA(ALT) also has the principal responsibility for all DA matters and policy related to acquisition, logistics, technology, procurement, the industrial base, and security cooperation (that is, security assistance and armaments cooperation).
- b. Exercise the procurement and contracting functions, to include exercising the authorities agency head for contracting, procurement, and acquisition matters pursuant to laws and regulations, the delegation of contracting authority, and the designation of contracting activities.
- c. Oversee ILS, readiness, supply, services, maintenance, transportation, and related automated logistics systems management.
- d. Appoint, manage, and evaluate program executive officers and direct-reporting program managers.
- e. Manage the Army Acquisition Corps and the Army Acquisition Workforce.
- f. Chair the Army Systems Acquisition Review Council (ASARC).
- g. Act as the Systems Architect of the Army.
- h. Coordinate with the Office of the DCS, G-3 and the Office of the Assistant Chief of Staff for Installation Management (OACSIM) in the preparation of the modernization portion of the POM.
- i. Execute the research and development function, including scientific and technical information, domestic transfer, advanced concepts and assessments, basic and applied research, and non-system-specific advanced development.
- j. Manage the Department of the Army Competition Advocate Program.
- k. Ensure the production readiness of weapon systems.
- l. Formulate Army-wide technology base strategy, policy, guidance, and planning.
- m. Administer and oversee research, development, test, evaluation, and acquisition programs, to include the execution of data/information exchange programs, cooperative research and development memoranda of understanding, and participation in international forums concerning the aforementioned subjects.
- n. Serve as the SA's single executive for providing export policy oversight—providing policy direction and oversight to the DCS, G-2 on technology transfer. Chair and direct the Technology Transfer Security Assistance Review Panel, which serves as the executive decision authority for Army export control.
- o. Develop, defend, and direct the execution of the Army's acquisition policy as well as legislative and financial programs and the budget.
- p. Establish policies and strategies for implementing and evaluating the effectiveness of acquisition initiatives within the Army.
- q. Develop, manage, and approve the long-range acquisition investment analysis.
- r. For environmental issues—
 - (1) In cooperation with the Commanding General, U.S. Army Materiel Command (AMC), establish and maintain the Environmental Support Office (ESO) within ASA(ALT) to provide direct support to the Army Acquisition Community, PEO, and PM environmental and affirmative procurement initiatives, issues, and concerns. The ESO will provide recommendations to the AAE or other decision authority about environmental issues associated with materiel and ASA(ALT) missions and functions. The ESO will be the ASA(ALT) single point of contact for coordinating environmental issues related to materiel development, logistics, and technology for HQDA component organizations in coordination with the Office of the ASA(I&E). The ESO will ensure execution of environmental policy by acquisition managers.
 - (2) Establish and maintain direct environmental support to program executive officers, program managers, and Army acquisition components for consideration of environmental issues impacting operational mission requirements and advise the AAE about high-risk residual hazards.
 - (3) Evaluate all environmental, safety, and occupational health research and development (R&D) programs and give priority to funding all programs including acquisition and industrial pollution prevention analyses to resolve system ESOH issues.
- s. Serve as the functional chief (FC) for Career Program 14 (CP-14) contracting and acquisition (see AR 690-950).

Appoint a functional chief's representative (FCR) for CP-14 to represent the contracting career programs and an FCR for CP-15 to represent quality and reliability assurance programs.

t. Oversee the development, coordination, and implementation of policy and programs associated with the Army's Security Cooperation activities (that is, foreign military sales, foreign military training, allocation of excess defense articles to foreign countries, armaments cooperation, technology transfer, direct commercial sales, and munitions case processing).

u. For life-cycle logistics—

(1) Establish policy and oversee the development and execution of logistics management programs.

(2) Oversee logistical acceptability and supportability of materiel systems to include acquisition logistics, in coordination with the DCS, G-4.

(3) Oversee the establishment of the HQDA logistics position concerning the acceptability, deployability, and supportability of all programs.

(4) Ensure that logistics considerations are incorporated in the warfighting analysis, in coordination with the DCS, G-4.

(5) Integrate manpower and personnel integration (MANPRINT)/human systems integration (HSI) and acquisition logistics into the materiel acquisition process.

(6) Establish an ILS office to serve as the independent logistician for all ACAT level programs.

(7) The ILS office will serve as the Army proponent for TLCSM and performance based logistics (PBL).

v. Develop and implement guidance and procedures to institutionalize the integrated use of modeling and simulation throughout the life cycle of acquisition systems.

w. Co-chair the Army Modeling and Simulation General Officer Steering Committee.

x. Exercise direct tasking authority over the Army's designated Executive Agents for the execution of their delegated security cooperation responsibilities.

y. Provide the Army policy representative to the Defense Acquisition Regulatory Council.

z. Direct the Army Science Board.

aa. Establish policies, strategies, and funding for implementing corrosion prevention and control within the Army and for evaluating corrosion prevention and control effectiveness.

2-7. Assistant Secretary of the Army (Civil Works)

The Assistant Secretary of the Army for Civil Works (ASA(CW)) has the principal responsibility for overall policy direction and supervision of the DA functions relating to all aspects of the Civil Works Program, including all reimbursable work performed on behalf of Federal and non-Federal entities. Among the responsibilities, the ASA(CW) will—

a. Manage the DA Civil Works Program for conservation and development of the national water resources, including flood damage reduction, river and harbor navigation, environmental restoration, and related purposes. This includes the following:

(1) Developing, defending, and directing the execution of the Army civil works policy and legislative and financial programs and budget.

(2) Developing policy and guidance for and administering the DA regulatory program to protect, restore, and maintain the waters of the United States in the interest of the environment, navigation, and national defense.

(3) Serving as congressional liaison on civil works matters under the direction of the Chief of Legislative Liaison, including serving as the DA point of contact for House and Senate Authorization and Appropriations Committees charged with oversight of the DA Civil Works Program.

(4) Developing policy guidance and conducting oversight for the U.S. Army Corps of Engineers programs in support of other Federal and non-Federal entities, except those activities that are exclusively in support of the U.S. military forces.

b. Providing advice and assistance to the Army Acquisition Executive on acquisition matters relating to the Army Civil Works Program.

2-8. Assistant Secretary of the Army (Financial Management and Comptroller)

The Assistant Secretary of the Army (Financial Management and Comptroller) (ASA(FM&C)) will—

a. Direct and manage the Department of the Army's financial management activities and operations.

b. Execute the Department of the Army's Planning, Programming, Budgeting, and Execution System (PPBES), including oversight of Army program development, preparation of budget estimates, and otherwise implementing, with respect to the Department of the Army, the functions specified for the Under Secretary of Defense (Comptroller) in Section 135, Title 10, United States Code.

c. Establish and maintain Department of the Army financial management systems (including accounting systems, internal management control systems, and financial reporting systems) in accordance with Section 3022, Title 10, United States Code.

d. Establish Army finance and accounting policies, practices, and procedures in coordination with the Defense Finance and Accounting Service. Coordinate and oversee finance and accounting policy related to Army classified programs. Implement plans to review and oversee the tactical finance and accounting network. Provide assistance and support to the Auditor General of the Army.

e. Maintain the Department of the Army's future year plan describing the activities the Department of the Army proposes to conduct to improve financial management.

f. Oversee implementation of the Chief Financial Officers Act and related financial management legislation.

g. Establish policy and direct Department of the Army Internal Review and Audit Compliance, the Internal Management Control, Travel Charge Card Program, and the Fraud, Waste, and Abuse Program. Serve as the Department of the Army's focal and coordinating point for General Accounting Office (GAO) and Department of Defense Inspector General (DODIG) policy matters.

h. Oversee productivity and management programs.

i. Oversee Army-wide cost and economic analysis functions and activities. Supervise, direct, and develop Army cost estimates in support of systems acquisition and PPBES.

j. Direct the cost and economic analysis program as it relates to all financial management activities, to include establishing cost and economic analysis policies, methods, and procedures.

k. Develop statutory independent cost estimates and component cost analyses for weapon and information systems. Chair and oversee the Army Cost Review Board and approve the Army cost position for all major acquisition programs. Develop cost estimates for contingency operations and deployment options for various force sizes.

l. Oversee the conduct of independent resource analysis to enhance management of Department of the Army assets.

m. Oversee and provide technical guidance and support for the Army Cost Management/Activity Based Costing program. Conduct cost control and budget execution analysis of operating and investing accounts. Oversee and provide technical guidance for commercial activity and outsourcing studies.

n. Develop and maintain standard Army cost and economic analysis systems, models, and databases. Develop and maintain cost factors for installation base operations, civilian personnel, and train operating tempo in support of the program development, budget development, and program/budget execution processes.

o. Provide policy and oversight for military and civilian comptroller career program development matters.

p. Develop ASA(FM&C) position for the Selected Acquisition Report (SAR) reviews.

q. Transmit to the SA a report each year on the activities of the Assistant Secretary, including a description and analysis of the status of Army financial management during the preceding year.

2-9. Assistant Secretary of the Army (Installations and Environment)

The Assistant Secretary of the Army (Installations and Environment (ASA(I&E))) has the principal responsibility for all DA matters related to installations, real estate, chemical and biological agent destruction, environment, safety, and occupational health. The ASA(I&E) also sets the strategic direction, determines objectives, establishes policy, sets standards, and approves programming and funding for these programs. The ASA(I&E) will—

a. Provide policy, programming, and oversight of installation and housing programs for Active Army and Reserve Components including the following:

(1) Facilities design, construction, maintenance, physical security, and repair of buildings and utilities.

(2) Real property acquisition, management, disposal, condemnations, exchanges, public domain withdrawals, out-leasing (enhanced use leasing), and real property donations to the Army.

(3) Installation management improvement, energy management, and homeowners assistance.

(4) Base closures, realignments, stationing, planning and utilization, reuse, and economic adjustment programs.

b. Provide policy, programming, and oversight of installation privatization efforts, such as utilities, housing, competitive sourcing, and historic properties.

c. Develop overseas military construction agreements in support of U.S. military forces overseas, including overseas military construction, environment, safety, occupational health, and engineering services in support of U.S. military forces and other DOD-sponsored initiatives.

d. Provide policy, programming, and oversight of the environmental, safety, and occupational health programs including—

(1) Protection of air, water, and training lands, as well as pollution prevention, compliance, and cleanup of all Army properties, and natural and cultural resources management.

(2) HQDA treaty compliance review and chemical stockpile emergency preparedness.

(3) Policy and oversight of the environment, safety, and occupational health aspects of the Chemical Demilitarization Program.

(4) Develop environmental, safety, and occupational health policies and standards for the Army explosives, biological defense research, and chemical agent programs.

(5) Technology for all environment, safety, and occupational health related research, development, test, and evaluation (RDTE) activities.

e. Oversee the Chemical Demilitarization Program and supervising the Program Manager of Chemical Demilitarization.

f. Establish and maintain an organization within the ACSIM that will—

(1) Provide the ASA(I&E) and others, as directed, an independent environmental quality impact analysis (EQIA) for all major decision reviews for Army weapon systems.

(2) Provide technical support to ASA(FM&C) for the development and validation of environmental quality life cycle cost estimates as part of the Army cost review process, as required.

(3) Upon request, assist program managers with the integration of environmental quality considerations into all aspects of their programs.

g. Provide technical support to the ASA(ALT) in implementing affirmative procurement programs.

h. Participate in cost-performance tradeoff studies to ensure installation and environmental considerations and readiness issues are adequately addressed.

i. Assist in the development of the Army cost position.

j. Recommend material requirements and the associated priorities for ESOH considerations for system acquisition programs to the DCS, G-3.

k. Ensure that ESOH considerations are incorporated into warfighting analyses and provide recommendations to the ASA(ALT); the DCS, G-3; and the DCS, G-4 regarding environmental security and force protection issues.

l. Provide recommendations to a milestone decision authority regarding environmental quality, safety, occupational health, and installation concerns during a system's milestone review process.

2-10. Assistant Secretary of the Army (Manpower and Reserve Affairs)

The Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA(M&RA)) has the principal responsibility for setting the strategic direction and providing the overall supervision for manpower, personnel and Reserve affairs across all the Army components (Active, Guard, Reserve, civilian, and contractor). The ASA(M&RA) will—

a. Advise the SA on all matters relating to Human Resources and Reserve Affairs matters.

b. Ensure MANPRINT/HSI is considered and executed in the materiel acquisition process.

c. Oversee the current and future personnel readiness and well-being of the Army through the development and integration of human resources policies and programs across all components (Active, Guard, Reserve, civilian, and contractor).

d. Provide military and civilian human resources policy, programming, and oversight. These areas include, but are not limited to, accession; recruiting; retention; well-being programs; leadership; compensation and entitlements; morale, welfare, and recreation (MWR) and family support programs; civil-military cooperative programs to include Junior Reserve Officers' Training Corps (JROTC); awards; boards; the military postal system; the chaplaincy program; the Army history program; Health Affairs; education programs; the Soldiers' and Airmen's Home; equal opportunity, equal employment opportunity and sexual harassment; and special interest human resources programs. Provide policy, programming, and oversight for the Army marketing and advertising strategy for recruiting.

e. Oversee the personnel security, corrections, discipline, Office of the Special Counsel investigations, law enforcement, and military justice matters in coordination with the Army General Counsel.

f. Oversee and review all policies and programs pertaining to readiness resourcing, training, force structure, and professional and leader education and development.

g. Provide guidance and direction to the Army Reserve Forces Policy Committee.

h. Provide policy and oversight of Army manpower requirements determination and resource allocations for all the Army components across all MACOMs and separate agencies (Active, Guard, Reserve, joint, and Defense). Provide oversight to the Army Directed Military Over Strength Program and serve as Army proponent of military manpower requirements outside of the DOD. Is responsible to the SA for all Manpower Management policies and the development and publication of all manpower reports to Congress.

i. Provide guidance and direction for the utilization of contractor manpower in theaters of operation.

j. Provide policy, programming, and oversight of Army organization and force structure, to include the Army force management initiatives that affect the operating and generating forces (Active, Guard, and Reserve). Responsible for the execution of the Army Management Headquarters Account (AMHA).

k. Integrate resourcing initiatives into the budget and POM processes. This includes the oversight of the Organizing, Manning, and Training Program Evaluation Groups (PEGs), the synchronization of manpower initiatives addressed in the manning PEG, and the synchronization of programs and initiatives affecting Reserve Components in all the appropriate PEGs.

l. Provide policy, programming, and oversight of all Army workforce mix initiatives for active military personnel, Army civilian personnel, Army National Guard military and civilian personnel, Army Reserve military and civilian personnel, and Army contractors. This includes the policy, challenges and appeals, exemption approval, and reporting requirements under Sections 1 through 6, Federal Activities Inventory Reform Act of 22 October 1998, Public Law

105–270 (FAIR); oversight and management of contractor manpower reporting requirements; oversight and management of core competencies and workforce mix in relation to inherently governmental and outsourcing requirements; oversight and management of military to civilian conversions; and the oversight of workforce mix documentation in both the operating and generating forces.

2–11. Deputy Under Secretary of the Army (Operations Research)

The Deputy Under Secretary of the Army (DUSA(OR)) will—

- a.* Establish, review, and enforce Army test and evaluation (T&E) policy and procedures.
- b.* Oversee all Army T&E associated with the system research, development, and acquisition of all materiel and C4 and intelligence (C4I)/IT systems.
- c.* Provide staff management of all test programs of interest to the Office of the Secretary of the Army.
- d.* Approve TEMPs for ACAT ID, ACAT IC, ACAT IAM, ACAT IAC, and ACAT II programs, as delegated by the AAE. Also approve TEMPs for other programs on the Office of the Secretary of Defense (OSD) T&E oversight list.
- e.* Recommend candidate systems to DOD for live-fire test and evaluation (LFT&E).
- f.* Provide policy guidance for the life-cycle management, resourcing, verification, validation, accreditation, configuration management, interoperability, and release of all M&S.
- g.* Chair the Army Model and Simulation Executive Council.
- h.* Act as the Army proponent for information repositories pertaining to Army M&S.
- i.* Establish policy for operations research and systems analysis activities for DA analytical support services.

2–12. The General Counsel

The General Counsel (GC) will—

- a.* Provide legal advice to the the Secretary of the Army, AAE, ASA(ALT), Army CIO, ASARC, Army IT Overarching Integrated Process/Product Team (OIPT), and other DA officials, with respect to DA acquisition, logistics, and technology programs and major systems and services acquisitions.
- b.* Advise the Army Acquisition Career Program Board on legal issues concerning acquisition workforce management.
- c.* Exercise technical supervision over all attorneys providing legal advice concerning programs managed within the Army CIO and AAE–PEO program manger structure.
- d.* Provide legal advice on all aspects of international cooperative RDA programs.
- e.* Provide legal advice on acquisition policies and Army acquisition workforce management policies.

2–13. Chief Information Officer/G–6

The Chief Information Officer/G–6 (CIO/G–6) has the principal responsibility for the Army’s information management (IM) functions pursuant to 10 U.S.C. 3014(c)(1)(D) and is responsible for setting the strategic direction, determining objectives, and supervising the DA’s command, control, communications and computers (C4) and information technology (IT) functions. The CIO/G–6 reports to the SA and will provide the CSA such staff support as the CSA considers necessary to perform CSA duties and responsibilities. The CIO/G–6 will—

- a.* Serve as the Army CIO.
- b.* Serve as the Army G–6 for information and signal operations, network and communications security, force structure, equipping, and employment of signal forces.
- c.* Provide policy, oversight, and program direction to the U.S. Army Network Enterprise Technology Command/9th Army Signal Command (NETCOM/9th ASC). The NETCOM/9th ASC will—
 - (1) Serve as the single authority to operate, manage, and defend the Army’s infostructure at the enterprise level.
 - (2) Ensure Army IT systems are designed for survival, recovery, and support reconstitution for continuation of operations (COOP) support requirements.
 - (3) Provide technical support and evaluation to the CIO/G–6 during requirements processing.
 - (4) Conduct Army infostructure architecture and systems design review.
 - (5) Provide operational review and coordination authority for any standard architecture design or device that impacts the AEI.
 - (6) Provide support to the CIO/G–6 networthiness process.
 - (7) See AR 25–1 for additional responsibilities.
- d.* Develop policy and guidance on information management and C4/IT (including automation, telecommunications, visual information, and related activities, services, and programs).
- e.* Develop, coordinate, and implement Army knowledge management, Army Enterprise Architecture, the total AEI, and the Army online portal.
- f.* As the Army’s technical infostructure architect, codify and maintain the Joint Technical Architecture–Army; ensure that all Army IT is developed in compliance with the current technical architecture interfacing with DOD and other Service C4I architectures; and ensure that the mandated technical architecture is included in all procurements.

- g. Develop, coordinate, and implement a C4 information management capital planning and investment strategy (include investment policies, oversight, and control) and the planning, programming, budgeting, and execution of all C4/IT resources.
- h. Provide CIO validation of requirements for warfighting, base operations, and administrative and other mission-related processes associated with a C4/IT impact.
- i. Advise and assist the ASA(ALT) on all matters relating to the acquisition of C4/IT.
- j. Provide CIO assessment of national security systems and information technology systems as defined in the Clinger-Cohen Act (CCA) and CIO certification of CCA compliance for all major automated information systems.
- k. Provide guidance on and validation of business process initiatives and programs with a C4 information management impact.
- l. Develop and implement a C4 information management human capital strategy and related programs.
- m. Develop policy and provide oversight for Army information assurance and provide centralized program management for the Army's Information Systems Security Program.
- n. Provide policy, guidance, and oversight of the public key infrastructure, common access card, and other enabling technology programs.
- o. Serve as the DOD lead to consolidate and coordinate all biometrics activities.
- p. Develop policy and provide oversight of the Army Spectrum Management Program.
- q. Develop policy and provide oversight of visual information.
- r. Provide oversight of joint military satellite communications programs and projects.
- s. Develop policy, provide oversight, and program direction for the Army Electronics Business Program.
- t. Oversee the Army's Record Management program and the Freedom of Information and Privacy Act Programs.
- u. Serve as the Chair of the Army CIO Executive Board.
- v. Represent the DA on the Federal CIO Council, the DOD CIO Executive Board, the Military Communication-Electronics Board, the National Security Telecommunications and Information Systems Committee, and the Defense Senior Communicators Committee.
- w. Ensure compliance with policies that impact interoperability (that is, interoperability certification, army software blocking).
- x. Develop, coordinate, and implement the Networthiness Certification Program.

2-14. Chief of Public Affairs

The Chief of Public Affairs will—

- a. Serve as the Army MATDEV and be responsible for RDTE functions for public affairs materiel.
- b. Articulate the user requirements for public affairs equipment for field and installation use.
- c. Prepare requirements documents for public affairs-peculiar equipment.
- d. Be responsible for the overall design and selection of equipment that has application in public affairs operations and activities.
- e. Coordinate with Commanding General (CG), TRADOC; CG, Network Command; Director, Armed Forces Information Service (AFIS); Office of the Chief, U.S. Army Reserve (OCAR); and the National Guard Bureau (NGB), on requirements for tactical and standard equipment with public affairs applications.
- f. Provide the planning, guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with the Army Enterprise Architecture to meet military public affairs support mission requirements and interface with other Army and Service systems; minimize life-cycle cost and field systems within cost, schedule, and performance baselines.
- g. Develop policy for acquisition of military public affairs support systems. Manage, execute, and coordinate planning, programming, and budgeting for public affairs programs and projects.
- h. Serve as the CBTDEV, trainer, and user representative for Army Public Affairs.
- i. Formulate concepts; identify requirements for future doctrine, training, leader development, and organizations; recommend priorities for public affairs materiel needs.

2-15. Director, Small and Disadvantaged Business Utilization

The Director, Office of Small and Disadvantaged Business Utilization (SADBU) will—

- a. Advise the AAE and ASARC concerning small business issues that arise during the acquisition of weapon, information, or materiel systems.
- b. Provide policy and program advice to the ASA(ALT) to support implementation of statutory and regulatory responsibilities.
- c. Develop a strategy concerning small business program goals.
- d. Advise the Secretary of the Army on a regular basis with respect to small business issues arising out of subparagraphs *a*, *b*, and *c* above.

2-16. Assistant Chief of Staff for Installation Management

The Assistant Chief of Staff for Installation Management (ACSIM) will—

- a.* Identify to the ASA(ALT) and DCS, G-3 any long-range environmental issues associated with the proposed fielding of acquisition products and systems.
- b.* Serve as the Army's CBTDEV for installation environmental quality RDTE to include generating, validating, and prioritizing those RDTE requirements.
- c.* Serve as the technical advisor to ASA(I&E) for all environmental matters impacting installation sustainment and materiel operation and support.
- d.* Be responsible for installation environmental quality programs that support system fielding, operations, and maintenance.

2-17. Chief of Engineers

The Chief of Engineers (COE) will—

- a.* Provide engineer participation on the Army Staff as it decides battlefield requirements and modernizes the force, to include the engineer perspective on RDA and the distribution of systems and materiel.
- b.* In coordination with DCS, G-2 and TRADOC, review all emerging Army digital terrain data requirements and provide technical guidance and support to Army developers regarding digital terrain data.
- c.* Review all emerging Army digital terrain data requirements and provide technical guidance and support to Army developers regarding digital terrain data.

2-18. The Surgeon General

The Surgeon General (TSG) will—

- a.* Serve as the Army medical MATDEV for assigned programs and be responsible for medical RDA functions, to include health facility planning. Advise the AAE and ASARC concerning medical and health hazard issues during acquisition of systems.
- b.* Appoint the CG, Medical Research and Materiel Command to serve as the Deputy for Medical Systems for the ASA(ALT), responsible for assisting the AAE with medical issues, health hazards, and human implications of nonmedical systems acquisitions.
- c.* Provide the planning, guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with the Army Enterprise Architecture; minimize life-cycle cost; and are fielded within cost, schedule, and performance baselines.
- d.* Develop implementing policy and conduct program oversight for the acquisition of combat medical systems, medical readiness, health care programs, and health facility planning and other assigned Army and joint Service requirements.
- e.* Formulate, justify, defend, and execute all appropriation program requirements and funds in support of medical combat support equipment acquisition programs.
- f.* Recommend materiel capabilities and associated priorities for medical readiness and health care programs to the DCS, G-3.
- g.* Exercise primary responsibility for the Army's Health Hazard Assessment Program (see AR 40-10). Budget for and fund ESOH hazard assessments of Medical Department acquisition programs throughout the acquisition process.
- h.* Evaluate medical-related ACAT III programs for compliance with statutory and Army regulatory acquisition requirements articulated in the most recent CIO Assessment Criteria: "Develop and manage medical acquisition and career positions and personnel to meet DAWIA standards."
- i.* Establish implementing policies and oversee execution of policies concerning use of humans as volunteers (see AR 70-25).
- j.* Develop occupational health standards and medical support policies for the Biological Defense Program (see AR 385-69) and the Army Chemical Agent Safety Program (see AR 385-61).

2-19. Chief, National Guard Bureau

The Chief, National Guard Bureau (NGB) will—

- a.* Appoint an NGB CIO.
- b.* Serve as the program director for that portion of the dedicated procurement program pertaining to the National Guard and other programs as designated.
- c.* Plan, program, and budget for operational support of systems that have been removed from the Active Army but remain in the National Guard or for systems designated to provide strategic defense.
- d.* In support of the AAC—
 - (1) Formulate and administer, with the Director, Acquisition Career Management, acquisition career management policy that is consistent with the DAWIA.

(2) Provide recommendations on the identification and designation of acquisition and critical acquisition positions within the NGB and Army National Guard (ARNG).

(3) Advise the AAE on ARNG acquisition personnel matters and acquisition position management concerns.

e. Establish and maintain an acquisition career management program within the existing ARNG members of the AAC and AAW.

2–20. The Chief, Army Reserve

The Chief, Army Reserve (CAR) will—

a. Serve as the program director for that portion of the dedicated procurement program pertaining to the U.S. Army Reserve (USAR).

b. Plan, program, and budget for operational support of systems that have been removed from the Active Army but remain in the Army Reserve.

c. In support of the AAC: Provide Active Guard Reserve (AGR) support to Active Army programs.

(1) Formulate and administer, with the Director, Acquisition Career Management, acquisition career management policy that is consistent with DAWIA.

(2) Provide recommendations on the identification and designation of acquisition and critical acquisition positions within the USAR.

(3) Ensure that the allocations of individual mobilization augmentee (IMA) soldiers filling acquisition positions are consistent with established DA priorities.

(4) Manage acquisition related personnel qualifications, selection, training, utilization, and reporting requirements within the existing USAR personnel system to support the accession, career development, and promotion of USAR members of the AL&TWF.

2–21. Chief of Chaplains

The Chief of Chaplains (CCH) will—

a. Serve as the Army chaplaincy MATDEV and be responsible for the chaplaincy RDTE functions.

b. Appoint the Command Chaplain, U.S. Army Materiel Command, as the Director of Ecclesiastical Logistics, Chaplaincy Materiel Acquisition, and Technology.

c. Provide the planning, guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with Army Enterprise Architecture that meet military religious support mission requirements and interface with other Army and Service systems; minimize life-cycle cost; and are fielded within cost, schedule, and performance baselines.

d. Develop policy for acquisition of military religious support systems. Manage, execute, and coordinate the planning, programming and budgeting for chaplaincy programs and projects. Assign staff oversight for the combat developments and materiel acquisition process to the Director, Plans, Policy Development, and Training, Office of the Chief of Chaplains.

e. Assign staff oversight for planning, programming, and budgeting relating to chaplaincy materiel development projects and activities to the Director, Information, Resource Management, and Logistics, Office of the Chief of Chaplains.

2–22. Director of Army Safety

The Director of Army Safety (DASAF) will—

a. Develop, coordinate, and disseminate system safety program policies.

b. Manage the Army System Safety Program and its interface with MANPRINT/HSI and other disciplines.

c. Coordinate system safety issues with HQDA agencies, PEOs, and MACOMs.

d. Establish, coordinate, and publishes annual system safety objectives for implementation by DA organizations.

2–23. Deputy Chief of Staff, G–1

The DCS, G–1 will—

a. Develop, coordinate, and disseminate MANPRINT/HSI program policy and guidance to the Army. The DCS, G–1 will ensure that MANPRINT/HSI is integrated into the materiel systems requirements, development, acquisition, and modification processes.

b. Exercise primary staff responsibility for MANPRINT, to include MANPRINT assessments and MANPRINT domain assessments.

c. Be responsible for the wear and appearance of Army uniforms

d. Program active Army initial, supplemental, and clothing replacement allowance as part of the Military Personnel, Army (MPA) budget; and Reserve Officers' Training Corps (ROTC) uniform allowances as part of the Reserve Personnel, Army (RPA) budget.

e. Oversee and execute the Army Soldier-oriented R&D Program and supervise human performance RDTE efforts.

f. Through the U.S. Army Human Resources Command, will—

(1) Establish and maintain a capability to centrally manage the AAC and other centrally managed acquisition programs for both military and civilian workforce members.

(2) Establish a functional capability within the U.S. Army Human Resources Command (HRC) staffed with acquisition career managers for civilians and assignment officers for military for the purpose of central management of AL&TWF personnel.

2-24. Deputy Chief of Staff, G-2

The DCS, G-2 will—

a. Be responsible for intelligence, counterintelligence, and security policy supporting the systems acquisition process.

b. Provide policy oversight of personnel, industrial, communications, and information security; intelligence systems processing sensitive compartmented information, as well as intelligence and counterintelligence activities, in support of the RDA process.

c. Establish and implement threat support and documentation policy for force, combat, and materiel development activities.

d. Establish and implement the Army Foreign Materiel Program policy.

e. Validate and approve threat documentation.

f. Ensure counterintelligence support to HQDA and the MATDEVs for materiel acquisition.

g. Serve as the coordinator for the development of threat M&S. Develop threat M&S consistent with available resources. When unable to develop M&S, will oversee the PMs' process for obtaining the necessary threat M&S.

h. Serves as the single Army point of contact for establishing and granting the necessary delegated disclosure authority to disclose classified military information. Disclosure of such information is frequently necessary to facilitate cooperative R&D and security cooperation (that is, security assistance and armaments cooperation).

i. Serve as Army Staff lead for intelligence, surveillance, and reconnaissance (ISR) integration issues.

j. Establish and operate an Army Research and Technology Protection Center to integrate and synchronize security, intelligence, counterintelligence, foreign disclosure, and security countermeasure support to research and technology protection activities Army-wide.

k. Provide policy formulation, oversight, staff supervision, and evaluation of security, intelligence, counterintelligence, foreign disclosure, and security countermeasure support to research and technology protection planning.

2-25. Deputy Chief of Staff, G-3

The DCS, G-3 will—

a. Develop Army policy and guidance for materiel requirements and combat development programs, to include the operational requirements generation process, the horizontal requirements integration processes, and HTI.

b. Validate and integrate the review and evaluation of materiel requirements and critical operational issues and criteria (COIC) for all ACAT programs.

c. Approve or disapprove all waiver requests for nuclear, biological, and chemical (NBC) contamination survivability.

d. Define and validate capability goals, materiel objectives, overall force structure design, and BOIPs.

e. Support the Army's CIO in the validation of requirements and the resourcing and prioritization of IT programs.

f. Establish Army priorities throughout PPBES to include RDA programs and solutions to mission needs.

g. With the assistance of the DCS, G-8 and the DUSA (OR), coordinate force modernization activities, develop modernization plans, and monitor the impact of force modernization planning and execution for the total Army.

h. Conduct force integration analysis to assess supportability and affordability for structure, manpower, equipment, fiscal resources, facilities, and training.

i. Serve as co-proponent for the Army Research, Development, and Acquisition Plan (RDAP).

j. Develop training policy and serve as the Army staff proponent for training and TADSS programs.

k. Perform cost/performance tradeoff studies and work with the MATDEV and the CBTDEV to establish new system cost targets.

l. Provide operations security (OPSEC) support to HQDA and MACOMs for materiel acquisition.

m. Serve as the functional proponent for the Army's Operating and Support Cost Reduction (OSCR) Program.

n. Develop Army policy and guidance for the development and documentation of Minimum Mission Essential Wartime Requirements (MMEWR) of combat, combat support, combat service support, medical, special operations, intelligence, and security organizations.

o. Approve table of organization and equipment (TOE) and BOIP.

p. Co-establish, with the OASA(ALT), policy and guidance for the conduct of analysis of alternatives (AoA) for major defense acquisition programs (MDAPs) and major automated information systems (MAIS) programs.

- (1) Designate the Army command(s) or agency(ies) responsible for performing operational analyses and requirements tradeoff analyses either prior to or in support of AoAs.
- (2) Specify the date by which the AoA report must be provided to HQDA. This date is determined to meet ASARC and DAB/Review time lines.
- (3) Ensure that the AoA report is provided to ASARC members prior to the ASARC.
- (4) For a DAB/Review managed system—
 - (a) After approval of the AoA by the ASARC, submit the approved AoA through the VCSA and the AAE to OSD's Director, Program Analysis and Evaluation (DPA&E). The DPA&E assesses the adequacy of the AoA for the DAB/CIO Review.
 - (b) If necessary to meet DAB time lines, with the concurrence of OASA(ALT), submit the AoA report in draft form to the DPA&E prior to the approval of the AoA by the ASARC.
 - q. Vice-chair the Army Modeling and Simulation Executive Council.
 - r. Serve as HQDA proponent for M&S planning, prioritization, and programming.
 - s. Serve as functional CIE proponent for the Operations and Maintenance, Army (OMA) and RDTE budget appropriations related to CIE to include programming and funding: Active Army trainee organizational clothing and individual equipment (OCIE) requirements and authorized alterations of personal clothing as a part of the OMA budget; senior ROTC cadet OCIE requirements as part of the OMA budget; OMA procurement of CIE items for central funding and fielding (CFF).
 - t. Perform Army Staff oversight of the development of the Army's operational architecture and requirements and synchronize the technical, systems, and operational architectures.
 - u. Approve manpower estimate reports.
 - v. Ensure compliance with policies that impact interoperability (for example, Interoperability Certification, Army Software Blocking).

2–26. Deputy Chief of Staff, G–4

The DCS, G–4 is responsible for providing advice and assistance to the ASA(ALT) in addition to the responsibilities and authorities as DCS, G–4 on the Army Staff.

- a. As the responsible official for sustainment the DCS, G–4 will—
 - (1) Serve as the principal military advisor to the ASA(ALT) in the functional area of logistics.
 - (2) Manage readiness through the integration of logistics supportability throughout the acquisition life cycle management process for new systems as well as for maintaining the readiness of current systems.
 - (3) Ensure that the sustainment functions of readiness, supply, services, maintenance, transportation, aviation, munitions, security assistance, and related automated logistics systems management are fully integrated and properly balanced between acquisition and logistics.
 - (4) Ensure integrated logistics support requirements are validated and included in the materiel acquisition process to support unit set fielding, Total Package Fielding and full materiel release of systems and equipment.
 - (5) Responsible to the AAE for policies and oversight of integrated logistics support programming, planning, and execution, to include total life cycle systems management and performance based logistics.
 - (6) Direct an organization in OASA(ALT) for ILS.
 - (7) Oversee logistics operations associated with security cooperation and other ASA(ALT) staff.
 - (8) Support the AAE to ensure that program executive offices have incorporated and programmed supportability requirements into the acquisition and fielding requirements for new systems.
- b. The responsibilities as DCS, G–4 (ARSTAF) are—
 - (1) Responsible for the career development of the logistics workforce.
 - (2) Establish policies and provide guidance that ensures responsive, flexible, and effective logistics support to the Army.
 - (3) Maintain the status of current logistics operations and contingency plans and resource programs that support Army-wide logistics operations in the following areas: strategic mobility, supply, maintenance, war reserves/prepositioning, aviation, munitions, transportation/distribution, and readiness.
 - (4) Develop detailed logistics programs, budgetary input, and activities for the execution of responsibilities and authorities in the logistics area. Areas of concentration are supply, maintenance, and transportation. Specific items of interest are aviation, munitions, and readiness.
 - (5) Oversee the execution of Army logistics policies, programs, budgetary inputs, and activities in the major Army commands, focusing on supply, maintenance, transportation, distribution, strategic mobility, and the prepositioning of supplies and equipment.
 - (6) Support the CSA, in CSA's role as the CSA and as a member of the Joint Chiefs of Staff (JCS).
 - (7) Support the VCS in the Vice Chief's assigned Joint role.
 - (8) Represent Army logistics in joint concepts, such as focused logistics, and associated military programs.
 - (9) Chair the Army Uniform Board (AUB).

(10) Participate in cost-performance tradeoff studies to ensure logistics considerations and readiness issues are adequately addressed.

(11) Serve as the approval authority for all depot maintenance core analyses.

(12) Ensure that deployed equipment is sustained in compliance with the Army software blocking policy, the unit set fielding directive, and other policies or directives that impact interoperability.

(13) Manage the Army's logistics transformation program.

2-27. Deputy Chief of Staff, G-8

The DCS, G-8 is responsible for programming, materiel integration, DA studies and analysis, and externally directed reviews. The DCS, G-8 will—

a. Develop, independently assess, integrate, and synchronize The Army Program in support of The Army Vision. The DCS, G-8 is the principal advisor to the Chief of Staff, Army on joint materiel requirements and doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTLMPF) integration.

b. Serve as the principal advisor to the CSA on joint materiel requirements integration of doctrine, training, leader development, organizations, materiel, personnel and facilities (DTLOM-PF), and the materiel program execution over their life cycles.

c. Advocate the Army Vision with OSD, the Joint Staff, combatant commanders, the Services, and external agencies.

d. Serve as the USF system-of-systems manager (SOSM) in execution of Army Transformation.

e. Responsible for the future Army through programming, materiel integration, DA studies, and externally directed reviews.

f. Responsible for transitioning approved Army requirements from the planning to the programming phase of the PPBES.

g. Develops and defends of the Army POM; the Future Years Defense Program (FYDP); and the independent assessment, integration, and synchronization of the Army Program Objective.

h. Provides analytic support for HQDA using in-house, contractor, and federally funded research and development center resources.

2-28. The Sergeant Major of the Army

The Sergeant Major of the Army (SMA) will—

a. Advise and assist the DCS, G-1 to ensure that Army uniforms and related wear policies are suitable for Army enlisted personnel.

b. Advise and assist the DCS, G-4 to ensure that Army uniform issue and sale policies and procedures are suitable for Army enlisted personnel.

Section III

Commanding Generals of Major Army Commands and Heads of Other Army Elements

2-29. Commanding General, U.S. Army Materiel Command

The CG, U.S. Army Materiel Command (AMC) will—

a. Plan for and provide essential logistical, system (for example, hardware and software), and other functional support for deployed equipment, coordinating with and backing up any PM-contracted support.

b. Provide logistics and functional area matrix support as requested by PEO/PMs.

c. Manage the Army's science and technology base through its laboratories and research, development, and engineering centers.

d. Be responsible for the logistics support of assigned materiel in response to approved requirements.

e. Through subordinate intelligence offices, prepare, review, and approve threat documentation and disseminate intelligence to contractors in support of materiel development as a matrix support function in accordance with AR 381-11.

f. Provide security, intelligence, and counterintelligence support to assigned programs having critical program information (CPI).

g. In coordination with ASA(ALT), plan, program, and budget to support the Environmental Support Office (ESO) to provide direct environmental functional support to the Army acquisition community for acquisition, logistics, technology, procurement, industrial base security assistance programs.

h. Provide staff support to HQDA for policies and strategies to implement and evaluate the effectiveness of technical data management and the integrated digital environment within the Army.

i. Manage the Army Product Engineering Services Office (APESO) and provide independent assessments of program production readiness.

- j.* Provide an Army repository for reusable software components. Provide DOD development teams with domain analysis, source code, modeling, and reuse classes.
- k.* Participate in the Defense Logistics Agency Weapon Systems Support Program as outlined in AR 711–6.
- l.* Serve as the functional chief for Career Program 16 (CP–16), engineers and scientists (nonconstruction). Appoint a functional chief’s representative for CP–16 to represent the program for engineers and scientists (nonconstruction).
- m.* Through the U.S. Army Tank and Automotive Command, Army’s corrosion prevention and control manager—
 - (1) Provides technical guidance and support to PMs, vendors, and field Army commands on the application of corrosion prevention and control.
 - (2) Establishes teams of corrosion prevention and control experts to provide on-site assistance and interact with PM engineering personnel.
 - (3) Assists in the requirement generation process to ensure technical quality of specifications; prepares, submits, and defends requirements for resources required to lead the Army’s program for corrosion prevention and control; provides training programs that increase the awareness of the value of corrosion prevention and control; provides technical leadership to all levels of Army maintenance; and maintains a library of corrosion impact data to allow identification of materials and items that are susceptible to corrosion, predict service life, and evaluate life-cycle cost in terms of equipment readiness and maintenance.
- n.* Through the U.S. Army Research Laboratory, provide survivability, vulnerability, and lethality analysis to U.S. Army Test and Evaluation Command for Army Material programs.
- o.* Provide industrial base and diminishing manufacturing sources and material shortages (DMSMS) resourcing and support to ASA(ALT) and the PEOs/PMs in accordance with AR 700–90.

2–30. Commanding General, U.S. Army Space and Missile Defense Command/U.S. Army Strategic Command

In the capacity as the CG, U.S. Army Space and Missile Defense Command (USASMDC), the CG, USASMDC will—

- a.* Serve as MATDEV for assigned programs.
- b.* Provide the planning guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with the Army Enterprise Architecture technical requirements, minimize life-cycle cost, and are fielded within cost, schedule, and performance baselines.
- c.* Supervise, and evaluate assigned PMs, for projects assigned to USASMDC and provide matrix support as requested by PEO/PMs.
- d.* Be the principal assistant and staff advisor to the Secretary of the Army and the Chief of Staff of the Army for all matters pertaining to RDTE, fielding, and logistics support of space and missile defense programs.
- e.* Conduct technology base R&D for future space and missile defense concepts and other assigned technologies.
- f.* Validate space and missile defense cost estimates for assigned programs.
- g.* Serve as the primary point of contact with, and under, the Missile Defense Agency (MDA) oversight; be the executing agent for MDA for assigned technology base activities and other assigned programs.
- h.* Manage the development, acquisition, and support of non-system TADSS and system TADSS as requested by PEOs and PMs related to space and missile defense systems.
- i.* Develop and acquire targets, threat simulators, and unique test instrumentation for both DT and OT related to space and missile defense systems.
- j.* Manage and operate the U.S. Army Kwajalein Atoll (USAKA) Ronald Reagan Ballistic Missile Defense Test Site (RTS) and the High Energy Laser System Test Facility (HELSTF) (DOD major range and test facilities bases (MRTFBs)). (The other Army portions of DOD MRTFBs are managed and operated by the Army Test and Evaluation Command.)
- k.* Lead multidisciplinary ICT to identify desired future warfighting and training capabilities for space and missile defense.
- l.* Formulate concepts and identify requirements for future doctrine, training, leader development, organizations, materiel, and soldiers (DTLOMSs) for space and missile defense.
- m.* Serve as CBTDEV and force developer for those programs over which SMDC is assigned proponentcy for the Army. Work through TRADOC and HQDA (Office of the DCS, G–3) to formulate Army positions.
- n.* Support research and development in support of the Army Service component command to the U.S. Strategic Command (USSTRATCOM) mission and the mission of the U.S. Army Forces Command Global Missile Defense Forces.

2–31. Commanding General, U.S. Army Corps of Engineers

The Commanding General, U.S. Army Corps of Engineers (USACE) will—

- a.* Execute policy and oversee the development and execution of the Civil Works program, as directed by ASA(-CW), to include—
 - (1) All purely civil works-related activities (for example, water control, geographic information systems, supervisory

control and data acquisition, other hydropower management systems, and inland waterways management and control systems).

(2) All dual-use (civil/military) civil engineering related activities such as computer-aided design and drafting (CADD), various embedded control systems associated with energy management and control systems, and other related technologies.

b. Establish and independently execute acquisition, technical, and general policy for all civil emergency management activities.

c. Provide the planning guidance, direction, control, oversight, and support necessary to ensure systems are developed in accordance with the Army Enterprise Architecture; minimize life-cycle cost; and are fielded within cost, schedule, and performance baselines.

d. Supervise, evaluate, and exercise program direction and control over PMs of assigned programs.

e. Analyze all emerging Army systems for both digital terrain data requirements and environmental effects. Environmental effects include climate, terrain, noise, and minimizing toxic and hazardous wastes associated with normal system test, operation, use, and maintenance. Coordinate the development of digital terrain databases for the use in modeling and simulation.

f. Evaluate ACAT III programs for compliance with statutory and Army regulatory acquisition requirements articulated in the most recent CIO Assessment Criteria.

g. Coordinate the development of digital terrain databases for use in modeling and simulation.

h. In coordination with the DCS, G-2 and TRADOC, analyze all emerging Army systems for both digital terrain data requirements and environmental effects. Environmental effects include climate, terrain, noise, and minimizing toxic and hazardous wastes associated with normal systems test, operation, use, and maintenance.

i. Evaluate ACAT III programs for compliance with statutory and Army regulatory acquisition requirements articulated in the most recent CIO/G-6 assessment criteria.

j. Develop or test emerging construction technologies for use by U.S. Army in the provision of facilities.

k. Maintain Theater Army Facilities standards.

l. DOD Contract Construction Agent (DODD 4270.5).

m. In contingencies, under the Field Force Program, acquire and dispose of real estate in support of contingency operations. Responsibilities include—

(1) Contingency master planning and design for base camps, support bases, and facilities.

(2) Contingency contract award and administration of facilities construction.

(3) Contract for technical engineering services in support of military infrastructure requirements.

(4) Provide technical engineering review and contract administration support to USAMC for Logistic Civil Augmentation Program (LOGCAP) provided facilities.

2-32. Commanding General, U.S. Army Criminal Investigation Command

The Commanding General, U.S. Army Criminal Investigation Command (CIDC) will—

a. Articulate the user requirements for criminal investigative equipment for field and laboratory use.

b. Be responsible for the overall design of equipment that has application in criminal investigations.

c. Coordinate with CG, INSCOM and CG, TRADOC on requirements for tactical and standard equipment with law enforcement applications.

2-33. Commanding General, U.S. Army Intelligence and Security Command

The Commanding General, U.S. Army Intelligence and Security Command (INSCOM) will—

a. Serve as the CBTDEV and TNGDEV for strategic signals intelligence (SIGINT), information security (INFOSEC), and INSCOM sole-user intelligence and electronic warfare (IEW) systems; be responsible for formulating doctrine, concepts, organization, materiel, and TADSS requirements and objectives; prioritize materiel needs; and represent the user in the materiel acquisition process.

b. Prepare requirements documents and serve as the Army representative during development and fielding of new SIGINT and INFOSEC systems that are under the purview of the National Security Agency (NSA) and have application solely to U.S. SIGINT and INFOSEC systems.

c. Coordinate with the MATDEV on matters pertaining to acquisition of INSCOM sole-user SIGINT and intelligence, security, and electronic warfare (ISEW) systems.

d. Conduct developmental and operational T&E for assigned classified or secure systems, to include SIGINT equipment acquired for Army use in the U.S. SIGINT system as specifically designated by HQDA (Office of the DCS, G-3) and in coordination with ATEC.

e. Coordinate with the CG, TRADOC on combat and training developments for INSCOM sole-user ISEW systems and conduct combat and training developments for these systems when directed by HQDA.

f. Provide counterintelligence support to HQDA and the MATDEVs for Army acquisition programs.

2-34. Commanding General, U.S. Army Medical Command

The Commanding General, U.S. Army Medical Command (MEDCOM) will—

- a.* Oversee the Army's Health Hazard Assessment Program development on assigned programs.
- b.* Provide support to DOD components through mission area interface of CBT/TNGDEVs for capabilities and materiel development on assigned programs.
- c.* Organize and develop information management strategic plans and policies, and assessment criteria, for Army Medical Department (AMEDD) information systems management as assigned by the Army CIO in accordance with the Army Enterprise Architecture.
- d.* Execute the Army medical RDA missions through the U.S. Army Medical Department Center and School and the U.S. Army Medical Research and Materiel Command.

2-35. Commanding General, Military Traffic Management Command

The Commanding General, Military Traffic Management Command (MTMC), as the Army Transportability Agent, will—

- a.* Provide transportability engineering and deployability advice and analyses to the CBTDEV, TNGDEV, MATDEV, tester, and evaluator.
- b.* Provide transportability approval or identify corrective actions required to obtain approval for all transportability problem items.
- c.* Serve as MATDEV for assigned transportation common-user automated information systems; ensure assigned systems are developed in accordance with the Army Enterprise Architecture.
- d.* Evaluate transportation common-user transportation-related ACAT III automated information system programs for compliance with statutory and Army regulatory acquisition requirements articulated in the most recent CIO Assessment Criteria.

2-36. Commanding General, U.S. Army Special Operations Command

The Commanding General, U.S. Army Special Operations Command (SOC) will—

- a.* Serve as the CBTDEV, trainer, and user representative for Army Special Operations Forces (SOF).
- b.* Prepare requirements documents for SOF-peculiar equipment.
- c.* Formulate concepts; identify requirements for future doctrine, training, leader development, and organizations; and recommend priorities for SOF materiel needs.
- d.* Provide support to assigned operational test and evaluation.

2-37. Commanding General, U.S. Army Training and Doctrine Command

The Commanding General, U.S. Army Training and Doctrine Command (TRADOC) will—

- a.* Serve as the principal Army CBTDEV and TNGDEV.
- b.* Formulate concepts; identify requirements for future DOTLMPF and CIE; recommend priorities for force modernization changes; and represent the soldier in the acquisition process.
- c.* Integrate the total combat and training development efforts of the Army.
- d.* Develop and update capability documents and crosswalk the subsystem capability documents to CRDs and other required supporting documents. Ensure requirement documents are in compliance with Army system-of-systems interoperability requirements as stated in other approved capability documents in accordance with the Army Software Blocking Policy as appropriate.
- e.* Identify desired future warfighting and training capabilities through multidisciplinary ICTs.
- f.* Provide TRADOC representative(s) to IPT(s) as required.
- g.* Develop system training plans in support of program capability documents that lay out the equipment training strategies and total training support requirements for the operational, institutional, and self-development domains to include NET and unit sustainment (AR 350-1).
- h.* Support T&E programs and ensure availability of COIC to support TEMP approval, ensuring test participants are trained in accordance with applicable doctrine.
- i.* Develop and enforce operational architectures for all systems and systems of systems.
- j.* Be responsible for performing AoAs as necessary.
- k.* Participate with the MATDEV in conducting cost-performance tradeoff studies and establishing cost targets. Update requirement documents with changes resulting from cost-performance trade studies when appropriate.
- l.* Ensure subordinate offices plan for the integrated use of M&S across the requirements generation process to facilitate sustained collaboration with the acquisition workforce.
- m.* Support the PM and provide necessary data to support the environmental, safety, and occupational health evaluation.

2-38. Commanding General, U.S. Army Center for Health Promotion and Preventive Medicine

The Commanding General, U.S. Army Center for Health Promotion and Preventive Medicine will—

- a.* Serve as the Surgeon General's Health Hazard Assessment Program lead agent, implementing the program on behalf of The Surgeon General.
- b.* Develop and maintain a database of system assessments for use in completing Health Hazard Assessment Reports and providing program management information.
- c.* Upon request, prepare and submit health hazard assessment (HHA) reports to support MDRs and materiel releases.
- d.* Maintain liaison with T&E agencies, MANPRINT domains, and other Army Medical Department agencies to encourage the exchange of technical information and process improvements.
- e.* Provide on-site Health Hazard Assessment support to include IPT participation and technical services when requested and funded by MATDEVs.
- f.* Complete toxicity clearances on new chemicals and material before accepted for Army use (see AR 40-5).

2-39. Commanding General, U.S. Army Medical Research and Materiel Command

The Commanding General, U.S. Army Medical Research and Materiel Command will—

- a.* Serve for The Surgeon General as the medical MATDEV, logistician, and technical/developmental tester, and act as MDA responsible for RDA and logistical support for assigned medical materiel capabilities.
- b.* Serve as the Deputy for Medical Systems to the ASA(ALT). As such, advise the AAE and ASARC concerning medical and health hazard issues during acquisition of systems.
- c.* Supervise, evaluate, and exercise program direction and control over PMs of assigned programs.
- d.* Conduct developmental tests, evaluations, and assessments for medical materiel systems and support operational test.
- e.* Act as Chief Technology Officer to maintain and manage the medical science and technology base.
- f.* Support the Army Health Hazard Assessment program per AR 40-10.
- g.* Develop POM and fund requirements in support of assigned RDTE acquisition and logistic programs and execute resources in accordance with AMEDD investment strategy.

2-40. Commanding General, U.S. Army Medical Department Center and School

The Commanding General, U.S. Army Medical Department and School will—

- a.* Serve as the medical combat, doctrine, and training developer and operational tester and evaluator.
- b.* Develop doctrine, organizations, and capability needs within the guidelines established by the CG, TRADOC and in accordance with Army health care standards established by TSG (see AR 40-60).
- c.* Support the Army Health Hazard Assessment program per AR 40-10.

2-41. Commanding General, U.S. Army Safety Center

The Commanding General, U.S. Army Safety Center (USASC) will—

- a.* Assist the Director of Army Safety (DASAF) in developing system safety policies, objectives, and evaluation standards.
- b.* Develop and maintain an Army hazard-based accident database for use in risk assessment decisions.
- c.* Provide an independent safety assessment for ACAT I and ACAT II programs. Coordinate the independent safety assessments with the MATDEVs.
- d.* Establish, identify, and maintain a DA program of generic system safety.
- e.* Develop and disseminate improved system safety engineering techniques.

2-42. Commanding General, U.S. Army Test and Evaluation Command

The Commanding General, U.S. Army Test and Evaluation Command (ATEC) will—

- a.* Support the acquisition and force development processes through overall management of the Army's test and evaluation programs.
- b.* Plan, conduct, and report the results of DT and OT, including Live-Fire testing. Ensure that testing addresses compliance with the Army Software Blocking Policy as appropriate. Plan, conduct, and report the results of system-of-systems evaluations in support of software blocking.
- c.* Provide the independent system evaluation report for all Milestone Decision Reviews, the materiel release decision, and at other occasions upon request. This must include system-of-systems evaluation and test efforts. Conduct testing for non-acquisition customers as appropriate.
- d.* Provide survivability, vulnerability and lethality analysis and survivability enhancement assessment expertise for Army materiel programs.
- e.* Manage OSD-directed joint OT.
- f.* Chair and manage the Test, Schedule, and Review Committee (TSARC).

- g. Review TEMPs for all systems to ensure test planning and resources are adequate to evaluate operational effectiveness, suitability, and survivability. Provide input to parts 3 and 4 of the TEMP as appropriate.
- h. Manage and operate the Army's portion of the DOD major range and test facility base (except for the U.S. Army Kwajalein Atoll (USAKA)/Ronald Reagan Ballistic Missile Defense Test Site (RTS) and the High Energy Laser System Test Facility (HELSTF)).
- i. Ensure that a specific analysis of safety considerations is included in the test design; address safety issues in the independent evaluation through the Safety Confirmation process.
- j. Provide safety releases prior to any testing, demonstration, or pre-test training using troops. This includes tests with type-classified materiel used in a new or innovative manner.
- k. As a result of cost performance trade of analysis conducted prior to OT, make optimum use of M&S, combined DT/OT and alternative test events.
- l. Ensure M&S used in T&E events and procedures are integrated throughout the requirements generation, training, and other acquisition functions. Accreditation of M&S will be conducted for all M&S used by the Command.
- m. Provide assessments or evaluations (including safety confirmations) for Milestone decision reviews and the materiel release decision for new procurements, re-procurements, and system changes/modifications (AR 700-142) and at other points in the acquisition cycle as requested, for example at materiel release.
- n. Provide T&E representation to IPTs as required.
- o. Provide support to U.S. Army Medical Research and Materiel Command regarding the medically related protection aspects in the development, testing, evaluation, and readiness of CIE.
- p. Develops non-major instrumentation for testing. Non-major is defined as projects costing under \$1 million per year or under \$5 million over the life of the project.

2-43. Commander, Defense Contracting Command — Washington

The Commander, Defense Contracting Command – Washington (DCC-W) will provide contracting support to DOD activities in the National Capital Region (NCR) per DODD 5335.2.

2-44. Commandant, U.S. Army Chaplain Center and Schools

Commandant, U.S. Army Chaplain Center and Schools will—

- a. Serve as the chaplain combat, doctrine, and training developer for the Chief of Chaplains.
- b. Coordinate the development of concepts, programs, experiments, and initiatives that identify, prioritize, and integrate DOTLMPF-based requirements in keeping with the guidance of the Chief of Chaplains and under the guidelines established by the CG, TRADOC.

2-45. Deputy Assistant Secretary of the Army for Cost and Economics

The Deputy Assistant Secretary of the Army for Cost and Economics (DASA-CE) is the principal advisor to the Assistant Secretary of the Army (Financial Management and Comptroller) (ASA(FM&C)) on all Army cost and economic analysis activities. The Deputy for Cost Analysis will—

- a. Provide cost and economic analysis support to the Army Planning, PPBES, and other Army decision-making processes.
- b. Develop and promulgate Army policy on cost risk, cost analysis, and economic analysis. Publish Army cost and economic analysis regulations, pamphlets, and manuals. Proponent for AR 11-18, the Cost Analysis Manual, the Economic Analysis Manual, and other related publications.
- c. Manage the Army's implementation of the DOD Visibility and Management of Operating and Support Cost (VAMOSOC) Program.
- d. Administer the Army centrally funded cost research program. Serve as—
 - (1) Executive Secretary of the Cost Review Board.
 - (2) Deputy Functional Chief Representative for the Cost Analysis career field within the Comptroller Career Program (CP-11).
 - (3) Serve as Army administrator for the OSD Cost Analysis Improvement Group process.
 - (4) Serve as Army administrator for the OSD Cost Benefit Review Group process.
- (a) Represent the ASA(FM&C) at ASARC and PPBES program reviews. Ensure that cost estimates are available for review by major program councils.
- (b) Establish policies and procedures for implementing Army contractor cost data reports.

2-46. Director, U.S. Army Fuze Management Office

The Director, U.S. Army Fuze Management Office will—

- a. Provide oversight management of all fuze and safety and arming (S&A) device programs, programs involving fuzes and S&A devices, and components performing fuzing and S&A functions.
- b. Chair the U.S. Army Fuze Safety Review Board.

- c. Manage fuzes and S&A device programs as directed by higher headquarters or as requested by MATDEVs.
- d. Act as the Army's focal point for fuzes and S&A devices and related matters.

2-47. Director, U.S. Army Materiel Systems Analysis Activity

The Director, U.S. Army Materiel Systems Analysis Activity will—

- a. Perform and provide integrated analytical support to AMC, DA, and other Army agencies throughout the entire systems development/acquisition process in the following areas:
 - (1) Item/system performance data development and certification.
 - (2) Item/system performance/effectiveness analyses, both stand-alone and as part of the AoA process.
 - (3) Reliability and maintainability standards development/reform (Executive Agent).
 - (4) Production readiness reviews/producibility evaluations.
 - (5) Value Engineering Program.
 - (6) Industrial base capability studies.
 - (7) Product Data Management System development/improvement.
 - (8) Program risk assessments.
- b. Perform and provide logistics analysis support to AMC, DA, and other Army agencies throughout the life cycle of Army materiel and systems to include—
 - (1) Wholesale/retail supply and maintenance analyses.
 - (2) Field exercise data collection/sample data collection.
 - (3) War reserve and contingency package analyses.
 - (4) Industrial base sustainment studies.
- c. Exercise HQDA responsibility for verification, validation, and accreditation of item level performance M&S
- d. Develop, maintains, improve and/or verify, validate and accredit models and simulations (M&S) in the areas of item/system performance and logistics.
- e. Develop, maintain, and improve industrial base Web-based automated tools.
- f. Exercise HQDA responsibility for Army reliability methodology development.
- g. Exercise HQDA responsibility for the Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG-ME).
- h. Perform management-engineering analyses for AMC and DA to support the development/justification of manpower requirements for acquisition organizations and to ensure the integration of those requirements into the POM and Total Army Analysis (TAA) process.
- i. Provide the ASA(ALT) and Acquisition Support Center with Manpower Program Estimating Equations and Predictive Staffing Models that estimate future staffing requirements for all Army Acquisition Functions.

2-48. Director, U.S. Army Nuclear and Chemical Agency

The Director, U.S. Army Nuclear and Chemical Agency (USANCA) will—

- a. Establish nuclear survivability criteria and NBC contamination survivability criteria for Army materiel.
- b. Monitor the Army's nuclear survivability and NBC contamination survivability programs.
- c. Assist the MATDEV and CBTDEV with the application of nuclear effects and NBC contamination survivability criteria for systems and assist in the evaluation of system survivability shortfalls.

2-49. Director, U.S. Army Test and Evaluation Management Agency

The Director, U.S. Army Test and Evaluation Management Agency (TEMA) will—

- a. Develop and monitor T&E policy.
- b. Manage the HQDA staffing and approval process for TEMP's requiring HQDA approval and OSD approval.
- c. Serve as HQDA coordination agent for all T&E policy, resource programming, and related programmatic.
- d. Provide staff management of all test programs of interest to the Chief of Staff of the Army.
- e. Develop and monitor Army MRTFB management funding policy.
- f. Provide HQDA oversight on the funding of the Army Threat Simulator Program (ATSP), Army Targets Program, and Army Instrumentation Program and coordinate with the project manager for instrumentation, targets, and threat simulators (ITTS).
- g. Ensure that threat representative targets and threat simulators are validated to support accreditation of each specific application.
- h. Chair the Army Threat Validation Working Group.
- i. Approve Army threat validation reports for targets and threat simulators/simulations.

2–50. Procurement agencies (Defense Supply Center, Philadelphia; Defense Supply Center, Richmond; General Services Administration)

The commanders of procurement agencies in support of CIE will—

- a.* Execute full-scale production procurement.
- b.* Execute distribution of CIE items in accordance with Army plans and priorities.
- c.* Prepare specifications for CIE items in coordination with PEO Soldier.
- d.* Act as the sole point of contact within DOD for deviations, waivers, warranties, or contractual implementation of approved value engineering change proposals (VECPs) pertaining to their contracts.

Chapter 3 Army Acquisition Management Process

3–1. Overview of the acquisition management process

- a.* The acquisition process consists of a series of management decisions made in DOD or the Army as the development of a materiel system progresses from a stated materiel capability to a fielded/sustained system. The acquisition process is structured in logical phases separated by major decision points called milestones. It is initiated by a decision point, with decision reviews occurring at various other times. Entry into the acquisition process occurs at any point, consistent with phase-specific entrance criteria and statutory requirements and approval from the MDA.
- b.* The materiel acquisition process is divided into three distinct activities (pre-systems acquisition, systems acquisition, and sustainment). The three activities are subdivided into five phases: concept refinement; technology development; system development and demonstration; production and deployment; and operations and support. The five phases contain six work efforts: system integration; system demonstration; low rate initial production (LRIP); full rate production (FRP) and deployment; sustainment; and disposal.
- c.* Milestone B is the point of program initiation for the Army unless the maturity of the program justifies entry into the Defense Acquisition Management Framework at a later point. Milestone C is the decision point at which permission is sought to produce the specified LRIP quantities. If no LRIP is required of the system under review, Milestone C may then serve as the full rate production decision review. For systems requiring LRIP, the full rate production decision review will fall post-Milestone C and later in the production and deployment phase. This is illustrated in figure 3–1.
- d.* All acquisition programs, regardless of ACAT, will utilize the new defense acquisition management framework and apply the new terms of reference.

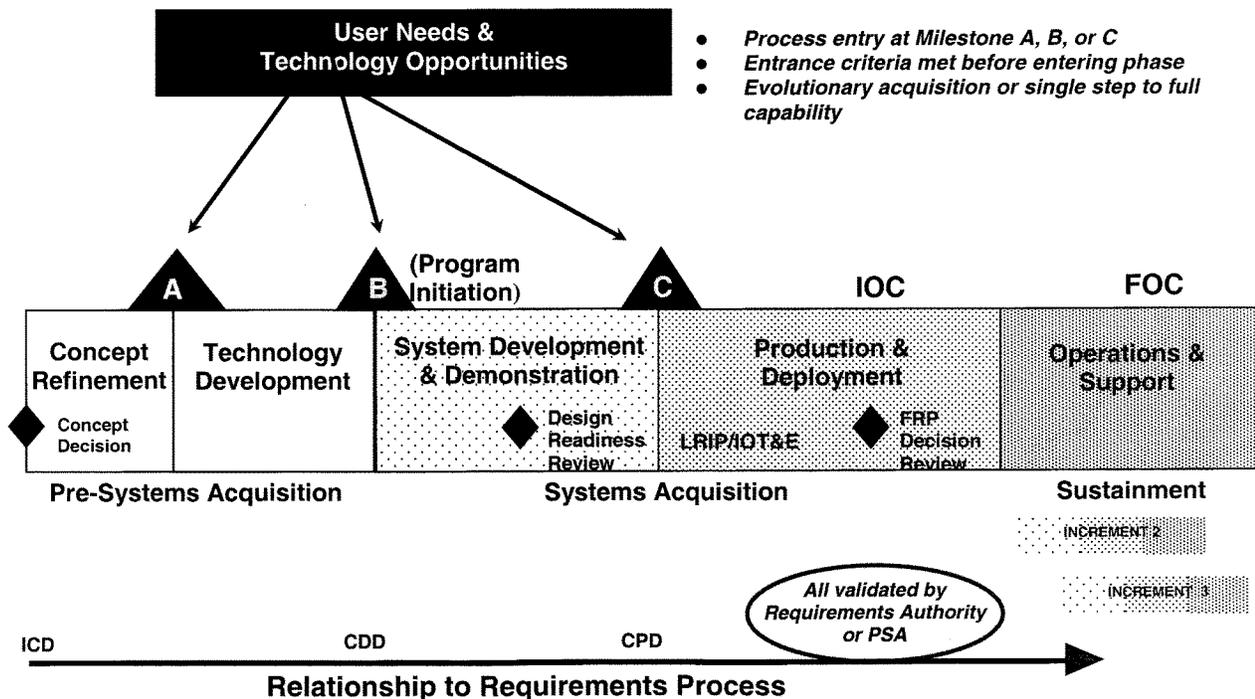


Figure 3-1. The Defense Acquisition Model

3-2. Categories of acquisition programs and MDA

All Army acquisition programs, except highly sensitive classified programs, will be placed into one of three ACATs (table 3-1) in which the MDA is the DAE, the DOD CIO, AAE, or the appropriate PEO. Highly sensitive, classified programs will comply with the policies and procedures specified in DODI 5000.2 and this regulation based on program equivalent dollar value. The ACAT determines the level of MDA.

a. *Pre-ACAT technology projects.* Advanced technology demonstrations, joint warfighting experiments, advanced concept technology demonstrations, and general technology development and maturation are efforts that occur prior to the initiation of an acquisition program. These efforts may also continue after program initiation to support subsequent increments of the program.

b. *ACAT I programs.* ACAT I programs are major defense acquisition programs or programs that are designated ACAT I by the MDA as a result of the MDA's special interest. ACAT I programs have two subcategories: ACAT I D and ACAT I C.

(1) ACAT I D programs are MDAPs whose MDA is the DAE (that is, the Under Secretary of Defense for Acquisition, Technology and Logistics). These programs receive a DAB review and require a decision by the DAE at each decision point. Prior to the DAB, the ASARC will review the program's status and documentation to ensure it is ready for a DAB review. The ASARC will provide a recommendation to the AAE who will then decide whether to allow the program to proceed to the DAB.

(2) ACAT I C programs are major defense acquisition programs for which the AAE has been designated as the MDA. These programs receive an ASARC review and require a decision by the AAE at each decision point.

c. *ACAT IA.* ACAT IA programs are major automated information systems or programs that are designated as ACAT IA by the MDA as a result of the MDA's special interest. In some cases, an ACAT IA program also meets the definition of an MDAP. The DAE and the DOD CIO (that is, the Assistant Secretary of Defense for Networks and Information Integration) will decide who will be the MDA for such AIS programs. Regardless of who is the MDA, the statutory requirements that apply to MDAPs will apply to such AIS programs. ACAT IA programs have two subcategories: ACAT IAM and ACAT IAC.

(1) ACAT IAM programs are MAIS programs whose MDA is the DOD CIO.

(2) ACAT IAC programs are MAIS programs whose MDA has been designated as the AAE.

d. *ACAT II.* ACAT II programs are those programs that do not meet the criteria for an ACAT I program but are major systems or are designated as ACAT II by the MDA as a result of the MDA's special interest. These programs

receive ASARC review. The MDA for ACAT II programs is the AAE or the individual designated by the AAE. (MDA responsibility may not be assigned or re-delegated below the rank of GO or SES.) AIS programs will not be assigned ACAT II, due to the dollar values of MAIS and non-major AIS programs.

e. ACAT III. ACAT III programs are defined as those acquisition programs that do not meet the criteria for an ACAT I, ACAT IA, or ACAT II. The MDA is designated by the AAE and will be the lowest appropriate level. This category includes non-major AIS programs.

f. Changes in ACAT level. The AAE will approve all changes to Acquisition Category levels.

(1) PEOs or direct-reporting PMs will request in writing a reclassification of an acquisition program to a higher or lower ACAT. The request will be submitted to the AAE through the Director, Acquisition Policy, 2511 Jefferson Davis Highway, ATTN: SAAL-PA, Arlington, VA 22202-3911. The request must identify the reason(s) for the requested change and be accompanied by the justifying documentation. The change will become effective upon approval by the AAE. The program's changed ACAT will then be posted to the ACAT Database.

(2) ACAT-level changes will be reported as soon as the PEO/PM suspects, within reasonable confidence that the program is within 10 percent encroachment of the next ACAT level. The AAE is responsible for notifying the DAE or the DOD CIO when cost growth or a change in Acquisition Strategy results in changing a previously lower categorized program to an ACAT I or IA program. ACAT-level reclassification will occur upon direction by either the DAE or the DOD CIO.

(3) Either the DAE or the DOD CIO may reclassify any acquisition program as ACAT ID or IAM at any time.

(4) The DODI 5000.2 provides further information on changes in ACAT-level for ACAT I or IA programs.

Table 3-1
Categories of acquisition programs and milestone decision authorities

Program category	Program management	Primary criteria (\$ = FY2000 constant)	Milestone review forum	Milestone Decision Authority
ACAT I				
ACAT ID	PEO/PM	more than \$365M RDTE more than \$2.19B Proc	DAB	DAE (USD(AT&L))
ACAT IC	PEO/PM	more than \$365M RDTE more than \$2.19B Proc	ASARC	AAE
ACAT IA				
ACAT IAM	PEO/PM	excess of \$32M single year excess of \$126M total program excess of \$378M total life-cycle costs	DOD CIO review	DOD CIO (ASD(NII))
ACAT IAC	PEO/PM	excess of \$32M single year excess of \$126M total program excess of \$378M total life-cycle costs	ASARC	AAE
ACAT II				
ACAT II	PEO/PM	more than \$140M RDTE more than \$660M Proc	ASARC	AAE ¹
ACAT III				
ACAT III	PEO/PM	Non-major (including C4/IT) systems (No fiscal criteria)	IPR	Designated by the office of the AAE

Notes:

¹ The AAE may redelegate MDA authority at his discretion to a level no lower than the PEO (GO/SES) level. Where applicable, in the areas of medical research and development, Army chaplaincy or Public Affairs, the MDA may be the commander of a systems or materiel command for ACAT II and III programs.

3-3. The approval process for a new start program

a. Initiating a new start program. A PEO sponsored new program will not be initiated without specific written approval from the AAE.

b. Request for a new start program. PEOs/PMs interested in initiating a new start program must submit their request through the CSL General Officer Steering Committee (GOSC), as described in DA Pam 70-3. For both military and civilian personnel, all requests must be supported by an authorization. The request must be supported by an initial capabilities document (ICD) and an AoA plan. Human and financial resources for the new program must be identified

by utilizing the criteria sheets provided in the Acquisition Workbook Analysis and Readiness Evaluation (AWARE) software program.

3-4. Assignment of PM

The term program/project/product manager should only be used to identify those persons who are CSL PMs. All Army acquisition programs, regardless of ACAT, will be managed by a PM. The designation of a PM will be made no later than the point of program initiation (that is, Milestone B). A PM and a deputy PM (DPM) of an ACAT I or ACAT II program will be assigned to the position at least until completion of the major milestone that occurs closest in the time to the date on which the person has served in the position for 4 years in accordance with the Defense Acquisition Workforce Improvement Act (DAWIA). In the interest of program continuity, a PM of an ACAT I or ACAT II program and the DPM should not be rotated simultaneously. All other PMs will be assigned to the position at least 3 years. Upon designation, the PM will be given budget guidance and a written charter that clearly delineates his or her authority, responsibility, and accountability for accomplishing approved program objectives. The charter will be presented to the PM upon his or her assumption of command.

3-5. Establishment, transfer, and disestablishment/termination of PEO/PM Programs

a. Establishment. Acquisition programs are established in order to provide intensive, centralized management. The AAE establishes all ACAT II and ACAT III programs. All ACAT I and ACAT IA programs are first reviewed by OSD before deciding whether they are designated ACAT ID/IC or IAM/IAC respectively. The AAE may designate a program to a higher ACAT level if more dedicated oversight is warranted.

b. Transfer. The AAE reviews and approves the transfer of management responsibility for acquisition programs between PEOs and PMs.

c. Mergers. The AAE reviews and approves the merger of PMOs for acquisition programs between PEOs/PMs.

d. Termination/disestablishment.

(1) Termination of a PMO or a program occurs after PM management responsibility for all assigned programs has been satisfactorily completed or when directed by the DAE, the DOD CIO, or the AAE. The PM prepares the termination plan. Army Acquisition Executive approval is mandatory to terminate an acquisition program.

(2) A PMO may be terminated/disestablished when—

(a) Program management objectives have been achieved and the system is removed from inventory, thereby absolving the PM of life-cycle management responsibility.

(b) Program objectives cannot be achieved or no longer meet the threat or the desired capabilities.

(c) Technology no longer meets operational requirements or is no longer economically suitable.

(d) Funding for the program is withdrawn.

3-6. Decision points

There are three types of decision points: milestones, decision reviews, and a design readiness review. Each decision point results in a decision to initiate, continue, modify, or terminate a project or program work effort or phase. The review associated with each decision point will typically address program progress, risk, affordability, supportability, program tradeoffs, Acquisition Strategy updates, and the development of exit criteria for the next phase or effort. The type and number of decision points will be tailored to program needs. The MDA will approve the program structure as part of the Acquisition Strategy.

a. Milestone decision reviews initiate programs and authorize entry into a major phase of the acquisition process. The information specified in DA Pam 70-3 and DODI 5000.2 will support milestone reviews.

b. Decision reviews will assess program progress and authorize continued program development. They are designed to be streamlined reviews and will require only the information specified by the MDA or as required by statute. These reviews are typically employed to permit entry upon the concept refinement effort and to seek a decision to enter into FRP and deployment.

(1) At the concept decision review, the MDA designates the lead DOD component(s) to refine the initial concept selected, approves the AoA plan, and establishes a date for a Milestone A review. The MDA decisions will be documented in an acquisition decision memorandum (ADM). This effort will normally be funded only for the concept refinement work. The MDA decision to begin Concept Refinement DOES NOT mean that a new acquisition program has been initiated. Additional information is available in the DODI 5000.2 tables at Enclosure 3 of that document.

(2) The design readiness review (during SDD) provides an opportunity for mid-phase assessment of design maturity as evidenced by measures such as the number of subsystem and system design reviews successfully completed; the percentage of drawings completed; planned corrective actions to hardware/software deficiencies; adequate development testing; an assessment of environment, safety, and occupational health risks; a completed failure modes and effects analysis; the identification of key system characteristics and critical manufacturing processes; an estimate of system reliability based on demonstrated reliability rates. Successful completion of the design readiness review ends system integration and continues the SDD phase into the system demonstration effort. MDAs may, consistent with the intent of this paragraph, determine the form and content of the review.

(3) The MDA will schedule a FRP decision review during the production and deployment phase to consider the results of production qualification testing and the initial operational test and evaluation results before authorizing FRP and deployment. If no LRIP is involved, the FRP decision review must occur prior to entering the production and deployment phase. In this case, the Milestone C decision will be the FRP decision review.

(4) MDAs may tailor the information requirements to support the review. Those requirements will be consistent with and not exceed the specifications of DODI 5000.2, enclosure 3.

3-7. Assignment of popular names

a. A popular name is assigned to a major item of equipment for use in publicizing the item and for ready reference identification.

b. Popular names should reflect functional characteristics and the DA's progress toward modernization of its concepts of warfare. Criteria/categories for consideration during selection of popular names is covered in DA Pam 70-3. The AAE can approve exceptions to the suggested criteria/categories.

c. Popular names for Army equipment and aerospace vehicles should be requested when the system reaches production or has immediate prospects of going into the inventory (see AR 70-50). Changes to approved popular names will only be done under compelling reasons (conformance with this guidance is not a compelling reason).

d. Final approval authority for assignment of popular names for military aerospace vehicles is OSD Public Affairs. Approval authority for other Army major items of equipment is the AAE.

3-8. Recapitalization

Recapitalization is the key element in the modernization and sustainment of the Army's current force and an essential enabler of the Army's transformation. The goals of the recapitalization are to extend service life, stabilize the rate of growth of operating and support costs, improve reliability, maintainability, safety, and the efficiency of recapitalized systems. Further, recapitalization is expected to reduce the logistics footprint, as well as enhance warfighting capabilities for selected recapitalized systems.

a. The Army's recapitalization strategy follows two paths: rebuild and selected upgrade.

(1) Rebuild restores a system to a like-new condition in appearance, performance, and life expectancy. It inserts new technology where practical, to improve reliability and maintainability. The result of the recapitalization rebuild is a system with the same model and a new life.

(2) Selected upgrade rebuilds the system and adds warfighting capability improvements that address capability shortcomings. The result of a selected upgrade is a system with a new model and new life and improved warfighting capability.

b. All selected upgrade programs that provide increased warfighting capability will have an approved capabilities document to support the upgraded capability. Systems designated for selected upgrade may also be required to follow the criteria set forth in the DODI 5000.2 and this regulation.

c. PMs, with AMC, will develop, review, and execute depot/industry partnership plans for rebuild and selected upgrades.

d. PMs will develop an RPB for their specific systems, after the program's option is approved by the AAE/VCSA.

(1) The RPB will be the basis for sound management of systems Recapitalization and will provide an historical record from which to measure the program's successes. It documents the configuration of systems managed under the Army's Recapitalization Plan, as well as the systems' funding requirements. It also provides the basis for determining Recapitalization policy breaches.

(2) The RPB describes the cost, schedule, and performance objectives for individual systems.

(3) The U.S. Army Cost and Economic Analysis Center (CEAC) validates the cost data in the RPB throughout the Recapitalization process and may request additional information to complete the analysis.

(4) The RPB and RPB updates are approved by the AAE/VCSA.

(5) The RPB must be revised if there is a breach in the program, and the re-baseline must be approved by the AAE/VCSA.

(a) Breach occurs when the schedule objective value plus 6 months is exceeded or when the cost objective value plus 10 percent is exceeded or when the quantity of systems to be recapitalized changes for any given year.

(b) The re-baseline will be submitted through the PEO to the AAE/VCSA for approval.

(6) The RPB baseline includes five sections: RPB description, funding, schedule, performance, and interfaces (Depot and Industry Partnerships, Test Community).

(a) The RPB description includes the AAE/VCSA approved recapitalization option for the program. The description includes characteristics of the option, that is, number of systems being recapitalized, configurations, upgrades, and a fleet mix, where appropriate.

(b) The RPB funding section displays the program's recapitalization funding requirements and schedule, as well as the program acquisition unit cost. These funding requirements are broken out into the following categories: OMA and RDA funding including, but not limited to, Sustainment System Technical Support (SSTS); Care of Supplies in Storage (COSIS); Supply Depot Operations (SDO); Second Destination Transportation (SDT); Post Production Software

Support (PPSS); Procurement, Army (PA); and RDTE. The schedule incorporates POM totals and complete program funding totals. Any funding and quantities that differ from the VCSA Recap configuration decision, must be identified, highlighted, and explained. The approving authority and rationale must be identified.

(c) Recapitalization schedules provide quantities of anticipated completed systems by year (inductions) through the end of the recapitalization process.

(d) Recapitalization performance is developed by the PM and describes metrics for measuring the effectiveness of a system's recapitalization process.

(e) Recapitalization interfaces facilitate recapitalization and identify the responsibilities of the partnerships.

(7) Depot/Industry partnership. The PM will identify and provide a short description of existing or potential partnerships among the PM, depots and industry.

(8) Contract agreement. The PM will list the type of contract or agreement the PM has with either industry or the depot that are related to recapitalization (production, logistics support, technical support).

(9) Date of implementation. The PM will provide a list of all testing facilities and dates of tests of the partnership.

(10) Test relationship. The PM will list all testing facilities and dates of tests and proving recapitalization efforts.

(11) Recapitalization initiatives. The PM will list the top-level responsibilities in the agreement that the depot or industry is responsible for executing.

Chapter 4 Acquisition Strategy

4-1. General considerations for the Acquisition Strategy

Each PM will develop and document an Acquisition Strategy to guide program execution from initiation through the re-procurement of systems, subsystems, components, spares, and services beyond the initial production contract award into post-production support. The strategy must address the PM's total life-cycle management responsibility, ending in a consideration of the disposal/demilitarization of the system. A primary goal of the Acquisition Strategy will be to minimize the time and cost it takes, consistent with common sense and sound business practices, to satisfy identified, validated needs, and to maximize affordability throughout a program's useful life cycle. Essential to the development of an Acquisition Strategy, is the need for the PM to perform detailed Market Research. Details about the contents of the Acquisition Strategy may be found in chapter 2 of the Interim Defense Acquisition Guidebook (30 October 2002).

4-2. Transportability considerations affecting the Acquisition Strategy

a. Transportability and deployability. Efficiently and economically transportable equipment and combat resources are critical to enhancing to Army's warfighting capability. All new systems, major modifications, upgrades to current systems, nondevelopmental items, commercial items, and re-procurements designated as transportability problem items must obtain transportability approval from the Commander, MTMC, in accordance with AR 70-44 and AR 70-47. The transportability of the item and the deployability of the force will be evaluated throughout the acquisition cycle as follows:

(1) The CBTDEV and MATDEV will include MTMC in all concept studies of transportability problem items. MTMC will provide transportability and deployability assessments that will determine the impact of proposed design characteristics on the unit or force's ability to meet current and future deployment criteria using existing and future deployment assets.

(2) All requirement documents will be coordinated with MTMC. Detailed transportability requirements will be an integral part of all requirement documents.

(3) Transportability and deployability will be a consideration for all decision reviews of transportability problem items.

(4) A transportability and deployability assessment of transportability problem items will be required from MTMC before Milestone B.

(5) Transportability approval from MTMC will be required before Milestone C.

b. Interoperability and program integration. The development of interoperable systems must be an integral part of all acquisition programs. This applies to all systems that exchange information regardless of their place in the life cycle. This includes the systems in development, being modified, under PDSS, or in post-production software support (PPSS). Synergistic operational interoperability must be a key factor in all phases of a system's development. System acquisitions must be crafted from a system-of-systems perspective in accordance with the DODD 5000.1, the software blocking policy, and unit set fielding directive.

4-3. Support strategy

a. Logistics enablers to prevent failures and improve maintenance. In accordance with Secretary of Defense guidance to minimize the footprint of U.S. forces, PMs will make every effort to improve systems reliability and ease

of maintenance. To move the Army toward the Future Force sustainment goals of sharp reductions in the sustainment domain, significant improvements in reliability, refined procedures for accelerated throughput, battlefield distribution, and mission staging, the following logistics enablers will be considered during system development:

(1) *Remotely accessible embedded system prognostics/diagnostics capabilities.* PEOs and PMs will work closely with the user community translating and incorporating diagnostics and prognostics requirements found in the requirement document into system specifications and contract requirements. In developing systems for the Future Force, PMs will consider, as cost effective technology allows, system designs incorporating remotely accessible embedded system prognostics/diagnostics capabilities in accordance with the approved requirements. The capability will be provided for self-diagnostics and fault isolation to key components or line replacement unit (LRU) level. PMs using embedded diagnostics and prognostics will adopt the necessary interfaces to allow electronic linking to automated information systems as they become available if it is determined to be cost effective. Embedded diagnostics, prognostics, and predictive tools will be addressed in the Supportability Strategy and approved at each milestone decision review where applicable.

(2) *Modular “Plug-and-Play” Components.* During system development, PMs must consider modular plug-and-play components to improve embedded/remote diagnostics and prognostics capabilities addressed in the system’s requirement. Plug-and-play defines a set of common services (protocols) that devices can use to join a network or intelligent system to describe themselves and their capabilities, thereby enabling other devices and people to use them without having to pursue a complicated setup and configuration procedure.

(3) *Intelligent software to automatically compensate for detrimental, environmental and operational conditions.* PMs developing systems for the Future Force will consider, as cost effective technology allows, system designs incorporating technological innovations to allow equipment to continually sense the environment and make automatic adjustments to support the maintenance of efficient operations.

(4) *Contractors on the battlefield.* PEOs and PMs will strive to develop systems that do not require the routine assignment of contractor support personnel in the ground maneuver area forward of the Division Rear (Force XXI). Systems must be developed to comply with the support philosophy of AR 715–9. When a PM anticipates the use of a support strategy that requires contractor support personnel in the forward area, that strategy will be reviewed at Milestone B and at each subsequent decision review up to and including the FRP decision review. For those programs past Milestone B, the waiver must be approved by the MDA and must be concurred in by the DCS, G–4. Additional guidance concerning supportability strategy can be found in AR 700–127.

b. Integrated Logistics Support (ILS). The objective outcome of a system acquisition is a system that represents a judicious balance of cost, schedule, performance, and supportability in response to the user’s expressed need. To that end, Integrated Logistics Support (ILS) management is the technical and management activities conducted to ensure supportability and sustainment implications are considered early in the development process, and executed throughout the acquisition process to minimize support costs and to provide the user with the resources to sustain the system in the field.

(1) ILS management efforts will be initiated by the CBTDEV, in the Pre-Acquisition Phase as part of the Concept Refinement effort. The CBTDEV will designate an Integrated Logistics Support Manager (ILSM) to oversee the ILS activities through their participation in the ICT as outlined in AR 700–127.

(2) At program initiation or earlier where appropriate, the PM will establish an ILS program as a continuation of the work begun by the ICT.

(3) The PM should establish a working-level integrated product team (WIPT) entitled the Supportability Integrated Product Team (SIPT). The SIPT is the organization that oversees the ILS efforts and makes recommendations to the PM for planning, programming, and execution of ILS responsibilities.

(4) The PM will designate an ILSM to chair the SIPT and oversee the ILS program.

(5) The product support integrator (PSI) identified by the PM will co-chair the SIPT.

(6) The ILSM, PSI, and the SIPT members will use the Supportability Strategy as a record of the planning, programming, and execution of the ILS program. This includes defining how systems analyses will be used throughout the systems engineering effort in gathering data, assessing alternative logistic support concepts, making decisions, and coordinating the plans and execution of the selected logistic support alternative and as a record of the actions taken.

(7) The PM will use the 10 logistic support elements identified in AR 700–127 and DA Pam 700–55 as tools to ensure that the full spectrum of supportability considerations are addressed when conducting supportability analyses within the systems engineering process.

c. Supportability strategy. Supportability is a design characteristic. As such, supportability analyses are to be an integral component of the systems engineering process.

(1) The PM will ensure that supportability is given equal consideration with the other program design considerations of cost, schedule, and performance in all acquisition decisions.

(2) The PM will prepare a Supportability Strategy, in accordance with AR 700–127. This is a Government-prepared document that completely defines the acquisition logistics strategy. It will evolve over time and will include a description of the logistics support alternatives, the type(s) of analyses that will be conducted to assess those alternatives, the results of the analyses, the decisions made, the implementation actions required to put the selected

alternative into place, and the actions taken to execute the selected logistics support concept. The strategy will be updated prior to each milestone and major event (that is, design readiness review, production decision, fielding). At a minimum it must be updated at least every 3 years.

(3) The Supportability Strategy will ensure that a core logistics capability in Government-owned, Government-operated facilities is retained for a ready and controlled source of technical competence and resources necessary for effective and timely response to mobilization, national defense contingency situations, and other emergency requirements. The source of support may be organic or commercial or a partnership. The PM must provide long-term access to data required for competitive sourcing of systems support throughout its life cycle. Sustainment support for products will be aggressively pursued through public-private partnerships via Performance Based Logistics contracts.

(4) The PM will summarize the Supportability Strategy in the Acquisition Strategy to include, but not be limited to—

(a) A broad description of the logistics support concept, to include an indication of the amount of support to be provided organically, by contract, or through partnership arrangements.

(b) A description of who the principal parties are in identifying and preparing logistics related acquisition documents, to include a description of the roles and responsibilities of each.

(c) A description of the logistics related information to be obtained from market investigation and market research.

(d) A description of how supportability analyses will be applied to the systems engineering process and contracts.

(e) A description of the logistics functions and tasks to be conducted under contract and how PBL business practices will be applied to those contracts. This includes, but is not limited to, the identification of incentives and penalties to be applied to contract performance.

(f) A description of how rights to technical data or long-term access to technical data is to be obtained.

(g) A description of how a competitive base for acquiring logistics support will be maintained.

(h) A listing of the commercial standards or specifications to be used in acquiring logistics products and services.

(i) A listing of the waivers to be obtained for use of other standards and specifications (that is, Government and military).

(j) A description of how a reduction in total ownership cost will be addressed in contracts.

(k) A description of how the selected logistics support concept will interface with the National Maintenance Program and Single Stock Fund initiatives.

(l) A description of how embedded prognostics/diagnostics, embedded training, and training systems will be incorporated into the system acquisition and support contracts.

(m) A description of how component breakout, standardization, and interchangeability will be addressed in the system acquisition and support contracts.

(n) A description of how automated identification technology (AIT) will be addressed in the system acquisition and support contracts.

(o) A description of how acquisition cross-servicing agreement (ACSA) planning will be/has been implemented in system acquisition and support contracts.

(p) A description of the core depot maintenance analysis and the schedule for depot maintenance transition plan for weapon systems designated as core.

d. Total Systems Approach. The PM will manage their acquisition program to optimize total system performance and reduce total ownership costs. The total system includes, but is not limited to—

(1) The end item.

(2) The ASIOE.

(3) The personnel identified to operate and maintain BOIP feeder data (BOIPFD) the end item and associate support items.

(4) The training, training devices, and training support.

(5) Technical data including, but not limited to, operations and maintenance manuals, standards, specifications, field manuals, engineering drawings, and software documentation.

(6) Transportation equipment.

(7) Command, control, communications, computers, and intelligence (C4I) equipment.

(8) Logistics processes and procedures.

(9) Physical security.

(10) Storage, maintenance, and training facilities.

(11) Force development processes and procedures.

e. Environmental safety, and occupational health. The PM will ensure that ESOH considerations are included in the systems engineering process.

(1) The MATDEVs develop and periodically update a programmatic ESOH evaluation as an element of the Acquisition Strategy. The ESOH section of the Acquisition Strategy addresses the PM's strategy for identifying the

requirements and establishing the organization, responsibilities, milestones, and budget estimates needed to evaluate the impact of ESOH issues.

(2) The MATDEV will establish programs to address system safety, hazardous materials management, and pollution prevention. System safety and health hazard analyses are mutually supporting, as are environmental/pollution prevention analyses and hazardous materials management. The PM should integrate the ESOH information to support the risk management process.

(3) The PM will have system safety programs to meet the safety risk management requirements of this regulation. The Safety Risk Management Process contains five steps: identify hazards, assess risk, make risk decisions, implement, and supervise. The system safety function supports the MATDEV's risk management process. The document that describes how the materiel developer will identify, track, and manage the system hazards is the System Safety Management Plan (SSMP). As an integral part of the programmatic ESOH evaluation, the SSMP should be included in the Acquisition Strategy, especially if the PM has tailored the program's risk decision authority matrix (table 1-1 for the DA standard) such that it changes the levels of decision authority from the DA standard.

(4) PMs have programs addressing hazardous materials management and pollution prevention. However, National Environmental Policy Act (NEPA) is the driving force for all engineering and scientific analyses required to mitigate environmental impacts and establishing pollution prevention. Therefore, hazardous materials management should be a subset of pollution prevention. The goal is to prevent environmental impacts through pollution prevention activities, but if necessary, the use of hazardous materials must be managed until an alternative nonhazardous substitute becomes available. Army implementation of the NEPA is AR 200-2 (32 CFR 651).

(5) The Army Health Hazard Assessment Program assists the PM in meeting health hazard risk management requirements of DODI 5000.2 and AR 40-10. The health hazard risk management process, like the safety risk management process above, includes hazard identification, risk assessment, risk decisions, control implementation/evaluation, and supervision. The Army's HHA Program supports the PM with a formal HHA report that includes hazard identification, risk assessment and recommended controls to support the PM's risk decisions, implementation, and supervision. Health hazards are routinely included in safety hazard tracking systems to ensure that they are adequately addressed by the PM's environmental, safety, and occupational health hazard risk management process.

(6) The Army toxicity clearance process supports the PM by providing approval and guidance for the safe use of new materials and chemicals. The PM is responsible for identifying technically feasible materials proposed for a specific Army use and requesting a toxicity clearance through the method delineated in DA Pam 70-3. The U.S Army Center for Health Promotion and Preventive Medicine's Toxicity Evaluation Program is then responsible for developing the toxicity clearance to include approval/disapproval for specific use as well as any safety requirements.

4-4. Warranties

a. The principal purposes of a warranty in a Government contract are to delineate the rights and obligations of the contractor and the Government for defective items and services and foster quality performance.

b. The use of warranties is not mandatory. All Army acquisition organizations that wish to use a warranty will institute procedures to determine the cost-effectiveness (AR 11-18) of warranties. Prior to negotiating a warranty, a cost-effectiveness analysis will be required to determine the value of the potential benefits received in comparison to the contract cost of the warranty plus the Army's cost of administration and execution.

Chapter 5 Test and Evaluation (T&E)

5-1. Overview of test and evaluation

a. Planning for test and evaluation (T&E) begins at the earliest stages of the development of user needs, science and technology, system requirements, development, and acquisition processes. System evaluators participate in the ICT review of the initial capabilities document when a new system or new technology is being considered for development.

b. Several Army organizations have T&E responsibilities. Specific T&E responsibilities are identified in of AR 73-1 and DA Pam 73-1.

5-2. T&E in support of systems acquisition and development

The primary purpose of T&E is to support system development and acquisition.

a. Army T&E provides information to the following:

- (1) MATDEV/PM for identifying and resolving technical and logistical issues.
- (2) Decision-makers responsible for procuring effective, suitable, and survivable systems.
- (3) Operational users (combat developer (CBTDEV), trainers, and logisticians) for refining requirements and supporting development of effective doctrine, training, tactics, techniques, and procedures and the organization for the system.

b. T&E strategies will integrate all testing and modeling and simulation (M&S) activities as an efficient continuum. Both developmental and operational testers, in concert with the system evaluator, assist the MATDEV and CBTDEV in developing an integrated T&E strategy that optimizes the use of all testing, M&S, and other credible events as appropriate to the program.

c. Continuous evaluation, conducted by the United States Army Test and Evaluation Command (USATEC), will be employed on all acquisition programs. Continuous evaluation is a strategy that ensures responsible, timely, and effective assessments of the status of a system's performance throughout its acquisition process. Continuous evaluation can begin as early as the functional area analysis for materiel systems and as early as the Information Management Plan (IMP) for C4I/IT systems and continue through system post-deployment activities. The continuous evaluation process includes system evaluation and system assessment.

5-3. Test and evaluation integrating modeling and simulation

Army T&E programs will be structured to integrate all T&E activities as an efficient continuum. M&S will be an integral part of T&E planning and will be used to reduce time, resources, and risks involved relative to the T&E programs. The integrated test and simulation strategy can include separate DT, OT, combined DT/OT, M&S, and other events that generate credible data.

a. Verified, validated, and accredited M&S will be applied as appropriate through the system life cycle to support efficient test planning and to supplement actual T&E.

b. A system's TEMP will provide a roadmap for integrated M&S, T&E plans, schedules, and resource requirements necessary to accomplish the T&E program. All relevant information of the test and simulation strategy will be described in the TEMP in accordance with DA Pam 73-1.

5-4. System evaluation

Independent system evaluations and assessments are designed to provide unbiased advice of system development to the Army or DOD decision-maker. The system evaluator, who is organizationally separated from the MATDEV and CBTDEV, ensures a completely objective perspective.

a. *Evaluation process.* The evaluation process consists of early and frequent assessments of system performance status during development. Early involvement can significantly reduce test time and cost through comparative analysis, data sharing, and use of all credible data sources. The purpose of an evaluation is to ensure that only operationally effective, suitable, and survivable systems are delivered to the users.

b. *System evaluation.* The system evaluation integrates experimentation, demonstration, and M&S information with available test data to address the evaluation issues (that is, COIC and additional evaluation focus areas). Through the System Evaluation Plan (SEP), the need for testing is determined and unnecessary testing eliminated. As the system approaches an acquisition milestone or the FRP decision review, the system evaluator will produce a system evaluation report (SER). The purpose of a SER is to advise the decision review principals and milestone decision authority concerning the system's operational effectiveness, suitability, survivability, the adequacy of testing and recommendations for future T&E and system improvements. The system evaluation in support of the FRP decision review will use data resulting from the IOT, when conducted, as a major data source integrated with other credible data sources as defined in the SEP. SA reports will occur at key points during the acquisition, before and after each milestone decision.

5-5. T&E working-level integrated product team

The MATDEV will form a T&E Working-level Integrated Product Team (T&E WIPT). The primary objectives of the T&E WIPT are to develop and document the T&E strategy in the TEMP.

a. The MATDEV, PEO, or acquisition authority will charter the T&E WIPT as soon as the materiel need is identified for all systems, to include command, control, communications, and computers (C4), intelligence (I), and information technology (C4I/IT), regardless of ACAT level.

b. The primary purpose of the T&E WIPT is to optimize the use of appropriate T&E expertise, test assets, targets, instrumentation, facilities, simulations, and models to achieve test integration, thereby reducing costs to the Army and decreasing acquisition cycle time. The T&E WIPT supports the integrated T&E strategy, resolves issues, and assists the PM/MATDEV in developing and coordinating the TEMP.

5-6. T&E review and reporting requirements

During the system acquisition process, T&E reviews are conducted and reporting documents are published that describe how the T&E requirements will be or were satisfied. Submission of T&E documentation (that is, plans, results, and reports) to OSD will comply with the policies and procedures in DODI 5000.2. T&E and TEMP documentation will be maintained in accordance with guidance from AR 25-400-2.

5-7. T&E master plan

The MATDEV has the overall responsibility to develop the TEMP. All T&E WIPT members contribute to the TEMP development and maintenance. Upon approval by the appropriate authority, the TEMP serves as a contract between the

acquisition, requirements, and the T&E communities for executing the T&E strategy. The TEMP provides key management controls for T&E in support of the acquisition process.

a. The TEMP. The TEMP is the basic planning document for a system life-cycle T&E. It is a reference document used by the acquisition and T&E communities to generate detailed T&E plans and to ascertain schedule and resource requirements associated with a given system. While documenting the T&E strategy, the TEMP provides the road map for integrating modeling, simulation, testing, evaluation plans, schedules, and resource requirements necessary to accomplish the T&E program.

(1) Every Army acquisition program will have a TEMP. It is updated for each milestone decision review, breach of the acquisition program baseline or significant change to the ORD or C4I Support Plan (C4ISP).

(2) Army TEMPs will comply with the format and content identified in DA Pam 73-1.

(3) While there will be one TEMP per system, a capstone TEMP is required for a program consisting of a collection of individual programs (see DA Pam 73-1).

(4) An Army-approved TEMP is required before commitment of T&E resources via the TSARC process.

b. System Evaluation Plan. The SEP documents the integrated T&E strategy. It consists of the evaluation strategy of the test and simulation execution that will be used throughout the system acquisition life cycle. It addresses system COIC, coordinated test program (CTP), and additional evaluation focus areas, identifies data needs and sources, the approach to be used for the evaluation of the system, specifies the analytical plan, documents required threat representations and major instrumentation, and identifies program constraints.

c. Operational test readiness statements (OTRS). As specified in the Operational Test Plan (OTP) milestone schedule, an OTRS is provided before the start of OT by each of the following: combat developer, PEO/MATDEV, training developer/trainer, test unit commander, or functional proponent. OTRSs are presented during the OTRR preceding the start of the OT to certify the readiness of the system for testing in each member's area of responsibility. An OTRS may also be required for some FD T&E and will be specified in the OTP if required.

d. Live-Fire T&E documentation.

(1) A LFT&E Strategy will be developed for each program designated for LFT&E. The LFT&E Strategy is approved as an integral part of the TEMP via the TEMP approval process at DOT&E.

(2) LFT&E electronic data processing and Detailed Test Plan (DTP) documents, as identified in the LFT&E plan matrix of the LFT&E strategy, satisfy the DOD requirement for a detailed T&E plan for LFT&E. They are prepared to provide the information required by the Interim Defense Acquisition Guidebook.

(3) The LFT results are contained in the final test report(s). The evaluation findings and recommendations are contained in the SER. Final Test Reports are provided through the DUSA(OR) to the DOT&E. If the DTP has been approved by the DOT&E, the DUSA(OR) will approve the final test report for that LFT phase. For other LFT phases, the testing agency approves the report. The SER is approved by the Commander, USATEC or designee and is submitted through the DUSA(OR) to the DOT&E.

5-8. T&E budget and financial considerations

a. In general, the Army RDTE appropriation will fund testing accomplished for a specific system before the production decision. Army procurement appropriation (APA) and/or operation and maintenance, Army (OMA) will fund testing done after the production decision. The MATDEV developing the system changes will fund testing of those changes using the same appropriation that funds the development itself. The appropriation used to procure or develop the system will fund RDT&E. Funding for C4I/IT will be from either OMA or RDTE, depending on whether the system is general purpose or developmental, respectively. The MATDEV will determine which appropriation to use.

b. The MATDEV will plan, program, budget, and allocate appropriate levels of test funding for all system DT and OT, as identified in the TEMP. ATEC will plan, program, budget, and allocate test funding for Joint T&E, FOT&E, and multi-Service OT&E for which there is no PM. The MATDEV will identify funding associated with specific system T&E (including ITTS) in the system life cycle cost estimates and the TEMP. The MATDEV will develop estimates of costs associated with replacement, repair, or refurbishment of tested equipment and other resources used during testing. Cost estimates also include the cost of disposal of test assets, shipping, demilitarization, and environmental remediation. Cost estimates will be recorded in the program's CARD and in the program office estimates (POE) while footnoting those "common" threat representations and major instrumentation items needed to support T&E that will be funded from sources outside of the program. Costs associated with damage to test equipment or facilities resulting from improper test procedures will be the responsibility of the test organization.

c. Instrumentation required or consumed in a particular test or used solely to support testing of a particular item, will be considered test-specific and will be charged to the funds financing the conduct of the test. The MATDEV will identify costs associated with system-specific items of instrumentation (including interface devices to provide connectivity to generic instrumentation systems) in the initial system acquisition cost analysis and resource requirements addressed by the T&E WIPT when they develop TEMPs. Funding for such instrumentation will be carried in the system acquisition costs and provided to test organizations in advance of scheduled tests to ensure that instrumentation is available to support those tests.

d. See AR 73–1 for a detailed discussion on the T&E funding to conduct T&E; support system changes, materiel required for testing, acquisition of mission support equipment.

Chapter 6

Program Design

6–1. The program design purpose

Good program design requires a complex integration of processes, disciplines, and skills. This chapter provides Army unique policy applicable to Army programs involved in the design of complex systems. The Interim Defense Acquisition Guidebook contains detailed information for program design.

6–2. Systems engineering

a. The PM will develop and implement a systems engineering program to apply the functional engineering disciplines identified in the Interim Defense Acquisition Guidebook to the systems engineering process. Systems engineering is the interdisciplinary approach to the evolution and verification of integrated and optimized product and process designs. DA Pam 70–3 will be used as guidance in establishing and conducting the systems engineering program.

b. The PM will implement a sound systems engineering approach to provide a comprehensive, structured, and disciplined approach for requirements allocation and concurrent product and process development for translation of approved operational requirements into operationally integrated systems of systems. Systems engineering will permeate design, manufacturing, T&E, and life-cycle support of the product. Systems engineering principles will influence the balance between performance, risk, cost, and schedule.

c. The PM will conduct periodic reviews of the system and program in a continual effort to eliminate unnecessary functions and costs while providing optimum performance. The Value Engineering Program methodology will be used in problem solving and cost containment/reduction effort.

d. The systems engineering program will ensure the consideration and implementation of—

(1) A data management program that assures the availability of the type of data and documentation (that is, performance specifications, detailed design packages, commercial item descriptions, 3–D models) that will be necessary to support testing and evaluation, production, competitive re-procurement, maintenance and repair, and recapitalization throughout the life cycle of the item.

(2) An integrated digital environment (IDE), using interoperability standards for data exchange, to allow every activity involved with the program to cost effectively create, store, access, manipulate, and/or exchange data digitally for all areas of systems engineering.

(3) A configuration management process for establishing and maintaining consistency of a product's performance, functional and physical attributes with its requirements and design and operational information throughout its life cycle.

(4) The use of performance specifications (that is, DOD performance specifications, commercial item descriptions, and performance-based non-Government standards) when purchasing new systems, major modifications, upgrades to current systems, and commercial and nondevelopmental items for programs in all acquisition categories, where practicable.

(5) Value engineering (VE) on projects and programs as required by Public Law 104–106, Section 4306; Section 432, Title 41, United States Code (41 USC 432) (OMB Circular A–131).

(6) A product definition data process for acquiring product data on contract and controlling and monitoring the delivery of that data over the system life cycle.

(7) The use of standardization documentation (and performance specifications) to significantly reduce life cycle costs, schedules, and risks, while improving quality and logistic support in accordance with DODD 5000.1, the Interim Defense Acquisition Guidebook, the Federal Acquisition Regulation (FAR), and the Defense Federal Acquisition Regulation Supplement (DFARS).

e. The system-engineering program will include full integration of the programs of other systems that have an interoperability requirement with this system. This includes both technical/operational synchronization and schedule harmonization across programs of interoperable systems and also includes consideration of logistics, DMSMS, and industrial base life-cycle impacts. System engineering must be done from a system-of-systems perspective in accordance with the Software Blocking Policy and its implemented process.

6–3. Modeling and simulation

M&S is a key element of DOD and DA acquisition strategies. Simulation and Modeling for Acquisition, Requirements and Training (SMART) is the Army's concept to exploit M&S and information technology to ensure collaboration and synchronization of effort across the total Army system's life cycle (Planning Guidelines for Simulation and Modeling for Acquisition, Requirements, and Training, 20 September 2002, <http://www.amso.army.mil/smart/index2.htm>). The

SMART concept encompasses all phases of product development from requirements analysis through materiel production, testing, cost analysis, training, integration, and support; incorporating all functional aspects of the system. The AR 5-11 provides additional policy and guidance concerning the management of Army modeling and simulation. The MATDEV will include M&S in the integrated product and process development (IPPD) to plan for early and disciplined integration of M&S that supports program design.

a. The MATDEV is responsible for the effective use of M&S. It is critical that coordination among agencies with significant expertise in M&S and their supporting activities is effectively managed. The MATDEV plans, manages, documents and communicates the M&S approach and needs by maintaining a Simulation Support Plan (SSP). Simulation support plans, where applicable, may be integrated with the program Acquisition Strategy. The MATDEV approves the SSP during the system acquisition process.

b. M&S usage (to include the M&S input data) must be consistent with its intended purpose and must be appropriately verified, validated and accredited in accordance with DA Pam 5-11. At the same time, M&S usage must meet the Army's need for reusable, interoperable and cost-effective M&S tools employed in an open system architecture. All Army M&S will be compatible with the Joint Technical Architecture-Army, specifically Section 4 (Information Modeling, Metadata and Information Exchange Standards) and appendix G (Modeling and Simulation Domain) of the Joint Technical Architecture-Army.

c. The MATDEV will adhere to procedures required for parallel development and validation of threat M&S in accordance with AR 381-11. Threat M&S requirements will be identified early in the materiel development process and integrated across the domains by the Office of the DCS, G-2 to foster interoperability, reuse and reduction in proliferation of models. Requirements will be checked against the Defense Intelligence Model and Simulation Resources Repository (MSRR) to ensure reuse of existing intelligence community validated threat models. Any threat model development will require parallel validation by the appropriate Intelligence Production Center.

6-4. Software engineering

a. *Independent expert program reviews (IEPR).* An independent expert program reviews (IEPR) is mandatory for all ACAT I software intensive system programs. The IEPR will be conducted after Milestone B and prior to the design readiness review. The PM or other acquisition officials in the program chain of authority, up to the Army Acquisition Executive, should consider use of IEPRs for all other acquisition programs determined to merit such a review. IEPR findings will be reported directly to the PM.

b. *Selection of programming languages.* The Joint Technical Architecture-Army designates approved programming language standards relating to the utilization of third generation languages (3GL). Army PMs and organizations responsible for software acquisition, development, and maintenance should adhere to the 3GL standards set forth in the most current version of the Joint Technical Architecture-Army. Unless specifically addressed in the Joint Technical Architecture-Army, there are no restrictions on the use of advanced software technology or fourth generation languages (4GL).

c. *Army Software Process Improvement Program (SPIP).* The Army Software Process Improvement Program (SPIP) establishes continuous improvement in software development capability within Army software activities.

(1) The SPIP will be based on an initial self-assessment of existing software processes, resulting in the identification of activities and resources necessary to achieve established goals within 6 years of the initial assessment.

(2) Army software activities, to include remote sites, meeting the criteria will establish an SPIP. Criteria are as follows: a minimum staff of 20 in-house software personnel or an annual software development or maintenance budget of more than \$2 million.

(3) MATDEVs will encourage the identification and reuse of—

(a) Successful operational and reprogramming media and media support methods.

(b) Common software development, test, operating, maintenance, and support environments.

d. *Software capability evaluations (SCE).* A software capability evaluation (SCE) will be conducted to establish a perspective contractor's software development capability and process maturity. Compliance with Software Engineering Institute (SEI) Level 3 or its equivalent is a goal for contractors participating in software development on all acquisition programs. If prospective vendors do not meet full Level 3 equivalence, then a risk mitigation plan is required to remedy deficiencies within 1 year of contract award. In any solicitation for a system that contains computer software, the SCE will be used in accordance with the Army Software Improvement Policy whenever any four or more of the following conditions are present:

(1) The acquisition is part of a multiphase program, as defined in the Interim Defense Acquisition Guidebook, and is expected to proceed beyond MS B.

(2) The estimated size of the developed software to be delivered is at least 50,000 source lines of operational code and having a total of 150,000 source lines of code for all delivered software (operational, non-operational support and test, nondevelopmental items, and commercial off the shelf software). Code not to be delivered or maintained, such as temporary prototype code or test, is excluded from the estimates for purposes of establishing the size criteria for requiring contractor software process evaluations.

(3) The solicitation includes mission critical software components.

- (4) The total estimated cost of the acquisition, including hardware, software, and all options, exceeds \$10 million.
- (5) The contract duration, including options, is specified as greater than 2 years.
- (6) The software development schedule is on the critical path of a Government program/project/product, as defined by its PM.
- (7) Any portion of the software could reasonably be expected to be subcontracted. The strong likelihood that software will be subcontracted, based upon knowledge of prospective offers prior to receipt of proposals, is sufficient to meet this criterion.

e. Software engineering. The software engineering program will include full integration of the programs of other systems that have an interoperability requirement with this system. This includes both technical/operational synchronization and schedule harmonization across programs of interoperable systems. Software engineering must be done from a system-of-systems perspective in accordance with the Software Blocking Policy and its implemented process.

f. Software reuse. The Army will adhere to the guidance provided in the DOD Software Reuse Vision and Strategy for implementing software reuse within the Army.

(1) The following four principles are to serve as the basis for Army software reuse initiatives and support activities:

- (a) The objective is systematic, not opportunistic, software reuse.
- (b) The initial focus is on domain-specific reuse, performing domain analysis to determine the potential for reuse within the domain and for developing domain models and domain architectures.
- (c) The Army will employ acquisition strategies that reflect software engineering/re-engineering/system design as a systematic, architecture process-driven reuse approach to system software development and maintenance.
- (d) Reuse is to be domain architecture driven. The domain architecture provides applications with the framework for systematic reuse of domain assets.

(2) Software reuse principles will be integrated into the software systems engineering process to incorporate systematic reuse and product-line development of software throughout the Army.

(3) PEOs, direct-reporting PMs, and supporting MACOMs responsible for functionally related domains assigned and approved by the AAE will establish domain management teams.

(a) Domain management teams will develop reusable software using domain architectures as the framework within domains under their purview. The primary consideration is on establishing architectures and developing reusable assets and system implementations against such architectures. Domain-specific application architectures will be established through domain engineering as the basis for the development and reuse of application software.

(b) Domain management teams will program funding for reuse activities within their operation control based upon their reuse implementation strategy. The team will establish and maintain a structure to evolve, transition, and implement software reuse technologies. The developed reuse strategy will address a team approach to implementing the reuse policy and should focus on developing a systematic reuse program.

g. Post Production Software Support (PPSS).

(1) For mission critical computer resources (MCCR), the PM is responsible for all software support throughout the life cycle of the system. The responsibility for preparing the input for the PPBES normally transitions from the PM to a software support activity (SSA). A MCCR system will transition into the PPSS phase of its life cycle the first full fiscal year after the weapon system hardware production is complete. The PM will plan, program, budget, and execute all MCCR weapon system software support requirements until the transition of PPBES responsibilities from the PM to the designated SSA is completed. The PM will develop a memorandum of agreement with the SSA outlining the funding and support requirements. Once the transition of PPBES duties is complete, the SSA will assume all PPBES responsibilities for the PPSS of the weapon system. Although the PPBES responsibilities have transitioned to the SSA, the PM is responsible for the system throughout its life cycle. After the PM concurs with the submission, the PPSS requirements and funding data will be submitted by system to HQDA and for organically supported systems will be in accordance with the Depot Maintenance OP-29 process (per AR 750-1). HQDA, Office of the DCS, G-3 prioritization guidance governs the funding of the PPSS. HQ, TRADOC will review the Office of the DCS, G-3 prioritization guidance and recommend adjustments to PPSS priorities based on near-term battlefield requirements.

(2) For AIS, the PM is responsible for PPBES activities for assigned programs until the system is transitioned to the designated SSA. The PM will use the Management Decision Process to program and budget all PPSS prior to transition to the SSA. The PM will develop a memorandum of agreement with the SSA outlining the funding and support requirements. After the PM concurs, the PPSS requirements and funding data will be submitted in accordance with the CIO process funding and prioritization of AISs. Although the PPBES activities have transitioned to the SSA, the PM has overall responsibility for the system.

(3) Procurement and RDTE funds will be utilized for all software support requirements until the weapon system hardware production is completed or in support of significant modifications. OMA dollars will be utilized for software support after the weapon system hardware production is complete.

(4) PPSS requirements will be categorized into the following as defined below for prioritizing and funding:

- (a) *Minimum Essential.* Correct operational defects and maintain minimum battlefield functionality.
- (b) *Must Fund.* Changes required to—

1. Comply with the Army's Technical Architecture or
2. Support OMA funded weapon and AIS system modifications and conversions.

6–5. Reliability, availability, and maintainability

a. The PM will establish reliability and maintainability (R&M) activities early in the acquisition cycle. Operational R&M requirements will address all elements of the system, to include support and training equipment. These efforts will justify the up-front investment in R&M design, engineering, and test necessary to meet established requirements. If required, they will also justify the tradeoff of R&M characteristics necessary to keep within established cost targets. The PM should also work with Army analytical and T&E organizations to ensure that R&M tradeoff and feasibility analyses include emerging best practices and “as demonstrated” R&M performance of previous systems. Throughout development and system operation, the PM is to continue exploration of ways to optimize the balance between R&M investment, operational performance, and support cost.

b. R&M requirements will address all elements of the system, to include support and training equipment. The PM will develop R&M system (technical) requirements based on the capability document and total ownership cost considerations to achieve a desired availability. The R&M system (technical) requirements will be stated in quantifiable terms and will be measurable during DT&E. Combat developer responsibilities for defining operational R&M requirements and the supporting operational mode summary/mission profile (OMS/MP) and failure definition/scoring criteria (FD/SC) are contained in AR 71–9.

c. The reliability process must be part of the overall system engineering process. Separate plans should never be required and are almost always meaningless without a viable and working IPT. The responsibility for the design reliability must rest with the IPT. The contract cannot be stated in terms of operational reliability without including life-cycle responsibility with the prime. Inherent reliability is the customary requirement. The last two sentences are unnecessary and not performance based; that is, the need for a “R&M Independent Evaluator” must be made on a program-by-program basis and documented in the TEMP.

d. The PM will plan and execute R&M design, manufacturing development, and test activities so that the system elements, including software, used to demonstrate system performance before the production decision reflect the mature design. IOT&E will use production representative systems, actual operational procedures, and personnel with representative skill levels. To reduce testing costs, the PM will take maximum advantage of M&S in the demonstration of R&M requirements. The PM can also use M&S to determine the system availability resulting from the demonstrated R&M requirements. The FD/SC is to be used as the basis for assessments of operational R&M.

e. PMs are encouraged to utilize reliability growth planning tools in reliability program and test planning in order to better evaluate progress towards meeting the established parameters and to project achievable reliability levels for future decision points. Intermediate program milestone thresholds and objectives should also be developed from these curves. At program reviews, the PM should relate achieved R&M values to the reliability growth planning curves in order to highlight the R&M growth, resources, and risk necessary to reach or exceed system operational requirements. Reliability growth should not be considered the principal path to the reliability requirement. Contracts written during Technology Development should require reliability demonstration at a high fraction (for example, 75 percent) of the minimum requirement prior to entry into system development and demonstration.

f. R&M programs are to be structured so that R&M requirements can be demonstrated prior to the FRP decision. In order to mitigate risk with respect to demonstration of reliability requirements, the IPT will develop reliability entrance criteria for initial operational test (IOT) and document them in the system TEMP.

g. R&M requirements included in solicitations should include quantified R&M requirements and allowable uncertainties (such as statistical risks) the FD/SC (provides reliability failure definitions and thresholds of functioning for assessing failures); and the OMS/MP (provides life cycle usage operation and conditions). Solicitations should require access to information adequate for evaluating the source data, models and reasonableness of modeling assumptions, methods, results, and risks and uncertainties. Requirements to use particular models or statistical test plans are not to be specified. Solicitations should not cite any language, specification, standard, or handbook that specifies “how to” design, manufacture, or test for reliability. MIL–HDBK–217 or any of its derivatives are not to appear in a solicitation as it has been shown to be unreliable, and its use can lead to erroneous and misleading reliability predictions.

h. Evaluation of proposals should include the contractor's reliability process for programs where reliability is considered to be medium or high risk. The process should detail the reliability tasks to be performed, the task schedule, test and resources, and organizational responsibilities that will ensure demonstration of contract reliability requirements. The process should also include the contractor's approach to mitigate risk.

i. Contracts should include language and incentives that encourage contractors to design reliability into their systems early in development, particularly for all critical components and operating and support cost drivers. Appropriate techniques may include failure mechanism modeling (for example, physics-of-failure), thermal analyses, vibration analyses, and the application of M&S tools such as finite element modeling, fatigue analysis, dynamic analysis simulation, thermal and fluid dynamics modeling, solid modeling and mechanics, and circuit card and electronic device reliability modeling programs. The PM is also encouraged to include provisions for early investment in manufacturing and quality that prevent degradation of reliability during manufacture. Variability reduction processes such as statistical process control (SPC), Six Sigma, and robust design techniques are encouraged for all processes identified as critical or

major. Contract R&M requirements should reflect operational R&M requirements in the capability document or reflect technical values derived from them. To mitigate risk with respect to demonstration of operational reliability requirements, contract reliability requirements will be demonstrated at confidence levels established in the contract.

j. A R&M scoring conference will be held to review, classify, and charge test data from system level tests planned for assessment of R&M requirements. A R&M Scoring conference may be held following any test event where R&M data are collected. An R&M Assessment will be held prior to each milestone to determine the impact that validated corrective actions have on R&M estimates. System contractor personnel that have participated in (or are participating in) the development, production, or testing of the system may not be involved in any way with the establishment of criteria for data collection performance assessment or with evaluation activities for the operational test and evaluation (10 USC 2399, OT&E of Defense Acquisition Programs).

k. PMs will track fielded systems failure and repair histories beginning with first unit equipped (FUE). This effort should focus on the identification of operating and support cost drivers and lead to cost effective improvements. The level of data collected should be sufficient to detect component and system aging, identify components that repeatedly fail, and assess the reliability of individual components. In order to cost effectively and unobtrusively collect this information, PMs should consider designing-in appropriate data collection capabilities as an integral (that is, embedded) part of their systems.

6-6. Standardization in support of the warfighter

a. The Army Standardization Program (ASP) is conducted under the authority and scope of the Defense Standardization Program (DSP) as established by 10 USC 2451-2457; DODI 4120.24, DOD 4120.24M, DODD 5000.1, and the Interim Defense Acquisition Guidebook. A senior official will be appointed as the Army Standardization Executive (ASE) with responsibility and authority for organizing, overseeing, and directing the ASP. Within each Army acquisition organization, a senior official will be appointed as the Standards Executive to assist the ASE.

b. Standardization is an enabling strategy designed to help program offices and buying activities provide the warfighter with equipment that is reliable, technologically superior, sustainable, and interoperable with other U.S. Services. Materiel developers will weigh decisions to standardize materials, parts, components, and other items needed to meet performance requirements against specific mission requirements, technology growth, and cost effectiveness.

c. Materiel developers will comply, to the extent practicable, with the DOD policy regarding the use of performance-based requirements in military specifications and standards and with the use of non-Government standards for all acquisition purposes as follows:

(1) When purchasing new systems, major modifications, upgrades to current systems, and commercial and non-developmental items for programs in all acquisition categories.

(2) When re-procuring existing systems, subsystems, components, spares, and services for which detailed designs are not required for repair, overhaul, rebuild, or recapitalization.

(3) "To the extent practicable" will be interpreted to mean that if no acceptable non-Government standard exists or if using performance specifications or non-Government standards is not cost effective or does not meet the user's needs over the product's life cycle, materiel developers may define an exact design solution with military specifications and standards as a last resort.

d. Materiel developers will identify and consider compliance with any applicable U.S. ratified international standardization agreements (ISAs) early in the design process to ensure interoperability with the systems and equipment of the U.S.; American, British, Canadian and Australian (ABCA); and NATO partners.

e. DA Pam 70-3 provides additional information concerning Army standardization program procedures.

6-7. Integrated digital environment

a. All acquisition programs are responsible for developing and implementing a tailored integrated digital environment (IDE) that—

(1) Provides the "functionality" required to efficiently and effectively manage their program.

(2) Provides for appropriate data security and protection of proprietary data.

(3) Provides for dynamic interoperability across the acquisition enterprise.

(4) Cost effectively contributes to the reduction of program acquisition and support costs.

(5) Keeps pace with the evolution of automation technology.

(6) Complies with guidelines in DOD 5015.2-STD for records management design criteria standard and functional baseline requirements and data elements for records management applications software (see <http://jitic.fhu.disa.mil/recmgt/standards.htm>).

b. A program IDE must support collaborative design and engineering, product data management, document management, and a rich collaborative work environment using integrated, shared, and near-real-time data. The IDE must provide secure, ubiquitous, browser-based access to remote (to include contractor-developed or owned) applications. This capability will allow authorized users to run externally hosted applications from remote locations. This capability will also support activities such as the querying of scheduling programs; accessing the 3-D-product model; viewing of

simulations; and viewing analysis results. Exceptions to these requirements will be made on a case-by-case basis for fully mature programs that can document that there will be only negligible return for the required investment dollars.

c. Program offices should begin implementing IDEs as soon as possible in parallel with activities such as business process reengineering, selection/development and integration of application systems, and training of personnel. IDEs should be designed to easily accommodate evolving interoperability requirements. To do so, IDEs must incorporate commercial standards, common practices, and evolving technologies to the maximum degree practical. Proprietary software, protected systems, and nonstandard data constructs will rarely provide the desired flexibility, access, and utility. To ensure that all IDEs are based on commercial “open systems” architectures, all IDEs are to comply with the standards in the Joint Technical Architecture - Army. A waiver from the Army Chief Information Officer (CIO) or his or her designee is required prior to implementing any deviation from the Joint Technical Architecture–Army. In those instances in which the Joint Technical Architecture–Army does not list a standard, PM IDEs are to comply with appropriate voluntary Federal or international standards or, when not available, customary commercial practices.

d. PEOs are responsible for ensuring the ACAT I and ACAT II PMs under their review have achieved and are operating with effective digital operations. Each ACAT I/II PM is to develop and maintain a plan for their IDE. The plan should document the objectives, approach, scope, resources, and schedules of the planned IDE. Draft plans are to be approved by the PEO but only after coordination with the Chief Information Officer (CIO) for the supporting major subordinate command (MSC). In lieu of separate PM plans, the PEO may develop/approve a single plan governing the programs under his purview if there is enough similarity in those efforts to preclude loss of visibility into planning efforts. The Military Deputy to the ASA(ALT) will approve transition plans for direct-reporting PMs. The PEO has the authority to establish additional controls over and above those identified in the IDE plan as deemed necessary to ensure cost-effective interoperability. Each PM is to fund the initial development and implementation of their IDE as well as its maturation and use throughout the life of the program. Funding should come from within existing funds or by programming/reprogramming additional requirements as necessary. The IDE plan should address the anticipated resource requirement as well as program plans for obtaining them.

e. Business process reengineering (BPR) is integral to the implementation of an effective IDE. Planning should include the analysis of existing business processes, to include the data sources, process participants, products, and product users, and identify the existing automation systems and required data formats where appropriate. Prior to automating these existing processes, PMs should look for opportunities to eliminate unnecessary elements and to reengineer the process to take advantage of developing IDEs. These analyses will provide the initial framework for managing the evolution of an IDE and should be maintained to reflect automation and process changes. PMs should use these analyses to justify automation investments, BPR activities, and individual system architectures.

f. PM IDEs should integrate with existing systems (for example, the Acquisition Information Management (AIM) System) whenever they provide the requisite functionality and are based on digital operations. In the event that current systems are not digital or cannot be modified to provide adequate functionality, PM IDE plans should identify digital systems or processes to provide the requisite functionality.

6–8. Unplanned stimuli

The reactive nature of munitions makes them susceptible to degradation and destruction when exposed to stimuli such as fragment and fires. These reactions may cause significant damage or injury to weapons, crews, and equipment, as well as to storage and transportation systems. Insensitive munitions will enhance system survivability by minimizing the likelihood and extent of potential damage resulting from unplanned munitions reactions.

a. All munitions developers are to apply survivability design features and materials in munitions and integrate such into program planning and execution. The Army Executive Agent for Insensitive Munitions (AEA–IM) will develop procedures to execute this mandate. This includes establishment of regulations and guidance and assistance to material and combat developers in achieving munition/weapon systems that can withstand unplanned stimuli in compliance with the DOD regulation. The Army Insensitive Munitions Board (IMB) provides technical assessments of IM program compliance with PMs and the acquisition community. The U.S. Army Armament Research, Development and Engineering Center, Logistics Research and Development Activity, in conjunction the IMB, recommends the acceptability of a request for waiver to unplanned stimuli to the AEA–IM, who then staffs the request with HQDA and the Joint Staff for final approval by the JROC.

b. The goal of the insensitive munitions is to reduce the likelihood of violence or reactions of munitions that are exposed to unplanned stimuli, in order to enhance survivability. Design features are developed and introduced through a total system engineering approach to obtain munitions that address the unplanned stimuli requirement and meet all combat/logistical system requirements.

Chapter 7 Information Superiority

7-1. Overview of information superiority

Information superiority is the key enabler for achieving network-centric warfare and is characterized by a robust assured network that exhibits secure and seamless interoperability; high quality awareness of friendly and nonfriendly forces and situations; the logistical status of the fighting force; the capability to improve information through correlation, fusion and analysis on the move; and the capability to gain and exploit the information advantage on the battlefield. The Army's enterprise-wide information architecture enables information superiority by connecting soldiers from "space-to-mud" and "factory-to-foxhole" through its infostructure and knowledge components. Enterprise-wide information architecture enhances battlefield and sustaining base information systems, thereby improving battle space awareness, command and control, performance based logistics and soldier readiness. This enterprise-wide information architecture requires management oversight and a system-of-systems acquisition discipline to achieve the Army's objective state.

7-2. Intelligence support

If an acquisition program is initiated in response to a military threat, users will base acquisition programs on authoritative and projected threat information. For production requirements and threat intelligence support to the U.S. Army, see AR 381-11, paragraphs 2 and 3.

7-3. Information interoperability

The capability document sponsor will characterize information interoperability within a system of systems, a mission area, and with other IT systems (and national security systems (NSS)). As part of the capability document, the sponsor also develops high-level operational graphics that depict information exchange requirements to achieve interoperability. The policies in DODD 5000.1, DODI 5000.2, CJCSI 6212.01B, and CJCSI 3170.01C apply.

a. The PM will certify Intra-Army Interoperability through the Central Technical Support Facility (CTSF) in accordance with the HQDA coordinated CTSF Intra-Army Interoperability Certification process. Systems that require joint certification by the Joint Interoperability Test Command (JITC) will coordinate with the U.S. Army Communications-Electronics Command (CECOM), Software Engineering Center (SEC) Army Participating Test Unit (APTU), per AR 73-1.

b. The PM and Life Cycle Engineering Support Centers will coordinate with the CTSF to address all intra-Army interoperability requirements. This applies to all Army operational- through tactical-level C4I systems prior to release to the field, regardless of the ACAT designation.

7-4. Intra-Army interoperability certification intra-Army

Intra-Army interoperability certification applies to all Army operational- through tactical-level C4I systems prior to release to the field, regardless of the acquisition category. The Army Chief Information Officer/G-6 is the Intra-Army interoperability certification authority. The certification testing is conducted through the CTSF in accordance with the CTSF intra-Army interoperability certification processes. The PM, System Manager, or Life Cycle Software Engineering Center (SEC) will coordinate with the CTSF to address all intra-Army interoperability requirements. This certification is in addition to joint certification. Systems that require joint certification by the Joint Interoperability Test Command (JITC) will coordinate with the U.S. Army Communications and Electronics Command (CECOM) APTU per AR 73-1. Certifications requirements follow:

a. PMs or system managers will program and budget funding for interoperability testing. Intra-Army interoperability testing and certification will be addressed in the individual Test and Evaluation Master Plan or in a test concept document.

b. Communications/data interface testing in support of intra-Army interoperability certification will be addressed in operational test readiness reviews and considered entrance criteria prior to decision reviews, operational evaluation/testing, and material release. Any modifications that impact previously established interface requirements to fielded systems require the PM or system manager to submit for re-certification prior to approval for material release.

c. Once a system is certified as interoperable, it is considered a base case system. The PM or system manager will make no unilateral changes to the base case system that have the potential of affecting interoperability unless agreed to by the DCS, G-8, Directorate of Integration. If requested changes are approved, the PM or system manager must bear the re-certification cost of all affected systems within a period not exceeding 12 months from date of approval.

d. The PM or system manager will coordinate with the CECOM SEC APTU to address all joint interoperability requirements with the other combatant commanders/Services/agencies. The CECOM SEC APTU will coordinate with the PMs or System Managers and the JITC for all Army systems that require joint certification. Modifications deemed necessary as a result of JTIC certification must be in accordance with paragraph *b* above.

e. PMs will adhere to the requirements of the Army Data Management and Standards Program (ADMSP) as stated in AR 25-1.

7-5. Command, Control, Communications, Computers, and Intelligence Support Plan (C4ISP)

The PM will develop C4ISPs for programs in all acquisition categories when they connect in any way to the communications infrastructure. The policies in DODI 5000.2, Enclosure 3, apply. Information regarding C4ISPs can be found in section C6.4 of the Interim Defense Acquisition Guidebook, dated 30 October 2002. Recommended procedures and format may be found in appendix 5 of the Defense Acquisition Guidebook.

7-6. Electromagnetic environmental effects (E3) and spectrum supportability

The PM will design all electric or electronic systems/equipment to be mutually compatible with other electric or electronic systems/equipment and the operational electromagnetic environment. The statutory and regulatory requirements of DODI 5000.2, enclosure on electromagnetic environmental effects (E3) apply.

7-7. Information assurance

The materiel developers will integrate information assurance (IA), communications security (COMSEC), and TEMPEST into the entire information system life cycle: design, development, and deployment. A risk management and mitigation strategy (for example, identify threats, assess risks, make risk decisions, implement, and supervise) will be integrated throughout the life cycle of the system. The materiel developers will address and include the addition of any IT/IA personnel (such as system administrator or network security manager(s) needed to operate the new or expanded system or network) or access requirements and responsibilities for patch management and system administration as part of the development cost of the system or network. All IA-related commercial off-the-shelf software (COTS) and Government off-the-shelf software (GOTS), hardware, firmware, and software components required to protect information systems will be acquired. The statutory and regulatory requirements of DODD 5000.1, enclosure 1; DODI 5000.2, enclosure 4, paragraph E4.2.4.2; DODD 8500.1; and DODI 8500.2.

7-8. Technology protection

PMs will identify critical elements of their program, referred to as critical program information (CPI). For programs with CPI, the PM will notify the DOD component servicing counterintelligence agency technology protection program manager of the identified CPI and develop a program protection plan prior to Milestone B. The provisions of DODD 5200.39 and other counterintelligence policy documentation guide the Army's counterintelligence and security support to research, development, and acquisition programs and science and technology activities. See DA Pam 70-3 for Milestone B exit criteria and the DOD Technology Protection Handbook for detailed guidance. PMs will submit a Program Protection Plan (PPP) for approval by the MDA. The Technology Assessment Control Plan, an attachment to the PPP, will be approved by the ASA(ALT) Deputy for Systems Management.

7-9. Information technology registration

- a.* All mission critical/mission essential (MC/ME) IT systems that are fielded, as well as all the MC/ME IT systems in development, that is, all Acquisition Category I through III programs, will be registered with the Army CIO and the DOD CIO per DODI 5000.2, enclosure 4, paragraph E4.2.4.1.
- b.* Referenced regulation permits use of appropriated funds for MC/ME IT systems if registered and prohibits DOD from awarding contracts for MC/ME IT systems or approving milestones for MAIS.
- c.* Systems must be registered in the Army IT Registry (AITR) with the correct mission criticality (MC/ME or Other). The CIO/G-6 will use AITR to register MC and ME systems with DOD CIO.
- d.* Additionally, all pre-system acquisition projects and systems in sustainment must be registered in the AITR

7-10. Programming languages

The programming language selected will be that which best meets the life-cycle cost, quality, performance, schedule, interoperability, and supportability goals established for the program.

- a.* Approved programming language standards relating to the utilization of third generation languages (3GL) are designated in the Joint Technical Architecture-Army.
- b.* Unless specifically addressed in the Joint Technical Architecture-Army, there are no restrictions on the use of fourth generation languages.
- c.* The selection of an appropriate programming language(s) and the associated documentation of the decision process will be subject to review during the milestone/system approval process.

7-11. Software risk plans and evaluations

All Army ACAT I and ACAT II PMs will select organizations, either contractor or Government, that have the domain experience in developing comparable software systems, a successful past performance record, and a demonstrably mature software development capability and processes. As part of every contracting process, the organization will provide for the PM's approval a software risk mitigation plan and schedule. The risk mitigation plan will include a copy of Standard Form 328 (Certificate Pertaining to Foreign Interests) executed by the vendor to allow for a determination of foreign ownership, control, or influence (FOCI) within the vendor's organization. The plan will describe risks associated with such areas as technology, complexity, defect prevention, interoperability, integration,

information assurance, testing, and scheduling. The plan will also describe deficiencies and risks determined in a Government led software risk evaluation. This evaluation will use software capability evaluation (SCE) tools developed by the Software Engineering Institute (SEI) or those approved by the Deputy Under Secretary of Defense for Science and Technology (DUSD(S&T)). At a minimum, the Army goal is full compliance with the SEI Capability Maturity Model, level three, although independent certification is not required. For those organizations that are not level three, the risk mitigation plan will also describe actions to ensure evolution to level three. The plan will describe how and when it will be reviewed and revised during the life of the contract. The risk plan and evaluation will be for each business unit or units proposed to perform the work under the contract. The reuse of evaluation results performed within a 2-year period prior to the date of the Government solicitation is encouraged. For programs that are less than ACAT I or ACAT II, the PM will also require software risk mitigation plans; however, a full SEI SCE is not required.

7-12. Software testing

The PM will base software testing on defined test processes, procedures, and best practices against system requirements for all software products to be fielded. This includes new development software, COTS and nondevelopmental items (NDIs), and reused software. Software changes to releases already fielded will go through a level of testing appropriate for the risk of the change failing. Guidelines for determining the appropriate level of testing for software changes are described in AR 73-1 and DA Pam 73-1. Testing of software interoperability with other systems (both intra-Army as well as joint) is an essential software testing procedure. All software testing will utilize appropriate software metrics as necessary to provide assessment of the software quality.

7-13. Software metrics

PMs will negotiate a set of software metrics with the software developer to affect the necessary discipline in the software development process and to assess the maturity of the software product. At a minimum, the metrics should address—

- a. Schedule and progress regarding work completion.
- b. Growth and stability regarding delivery of the required capability.
- c. Funding and personnel resources regarding the work to be performed.
- d. Product quality regarding delivered products to meet the user's need without failure, as reflected in associated requirements documents.
- e. Software development performance regarding the capabilities to meet documented program requirements.
- f. Technical adequacy regarding software reuse, programming languages, and use of standard data elements.

7-14. Software acquisitions through modular contracting

The materiel and combat developer will implement software design and development planning, budgeting and program implementation to allow for the use of modular contracting, as described in Section 434, Title 41, United States Code (41 USC 434), for major information technology acquisitions. They will ensure the acquisition strategies for software development acquisitions incorporate the following:

- a. Modularity in contract structure and deliverables.
- b. Development process that supports PM strategy and objectives, preferably a spiral to circle development process.
- c. Requirements baseline for each succeeding contract increment.
- d. Process for keeping cost, schedule, and functionality aligned (that is, for making tradeoffs that recognize the cost implication of changes).
- e. Appropriate contract type and incentives/award fee.

7-15. Software life-cycle responsibilities

a. The materiel developer retains Post-Production Support Plan (PPSP) responsibility for system software support through the life cycle of the program or until such time as the materiel developer determines it is appropriate to transition the responsibility to the sustaining command. If the materiel developer decides to transition system software support, the following guidelines are mandatory:

- (1) The system will not transition prior to the first full fiscal year after close of the hardware production line.
 - (2) The system will not transition until the first full fiscal year after completion of the fielding of the software if the system utilizes the Common Hardware System.
 - (3) A transition plan must be negotiated among the materiel developer, the prospective sustaining command and the assigned software support center (when different than the sustaining command).
 - (4) The negotiated transition date must occur after the requirements for system software support funding have been documented in the Program Objective Memorandum. This generally equates to no less than 2 years prior to the anticipated transition date.
- b. The use of the term post production software support (PPSS) applies only to system software support for those systems that have transitioned to sustainment and the depot maintenance OP-29 process.
 - c. The currently transitioned front line systems software that require PPSS will continue to utilize established

processes for funding and will be prioritized to retain minimum essential capabilities. If a PM selects an existing front-line system as a materiel solution, the PM is responsible for coordinating the extension of life-cycle duration and associated funding changes. The PPSS activities must maintain the capacity to be responsive to warfighter high priority problem reports and enhancements as approved by appropriate configuration control boards (CCBs).

7-16. Software piracy

The acquirer of any software product will ensure the acquisition, use, reproduction, distribution, or transmission of computer software does not violate applicable copyright laws. The acquirer will ensure compliance with copyright laws protecting computer software and ensure that only authorized computer software is acquired for and used on Army computers.

7-17. IT programs supporting administrative work-related processes

Sponsors and materiel developer of all IT programs that support administrative work-related processes will comply with the following general design and development principles:

- a. Ensure a process improvement analysis is performed and implemented for underlying processes before undertaking system development activities.
- b. Incorporate appropriate authentication and confidentiality features.
- c. Adequately protect intellectual property rights.
- d. Adequately protect individuals' privacy rights.
- e. Incorporate appropriate security safeguards. Such security safeguards should preferentially employ public key infrastructure (PKI) technology as identified by DOD and Army policies.
- f. Comply with appropriate Federal and Army technology standards.
- g. Develop and maintain appropriate system documentation from which system administrator and user training can be derived.
- h. Incorporate appropriate features to preserve data integrity throughout all data processing.
- i. Develop and maintain through project fielding, contingency plans for use in the event of system unavailability and comply with the Army's Vital Records program. Comply with Army's Vital Records Program (AR 340-26 Office Management Duplicate Emergency Files Program. <http://www.usapa.army.mil>).
- j. Incorporate effective and efficient record management and archival functions.
- k. Incorporate training support based upon distance learning or computer based training as appropriate.
- l. Ensure that the support infrastructure is sufficient to support the resulting C4/IT solution without significant degradation of other services provided through the host infrastructure.

7-18. Computer hardware reprocurement

a. The materiel developer is responsible to plan, program, and budget for the re-procurement of computer hardware contained within their NSS until the system transitions to the sustaining command. The recommended review cycle for re-procurement of computer hardware is 5 years dependent upon the individual system requirements, obsolescence, and fiscal constraints. The system review will be the basis for determining whether or not computer hardware re-procurement is appropriate. The initial fielding date of the system to the unit will be the baseline for the review to determine whether the computer hardware has reached obsolescence. The 5-year baseline for review of the computer hardware for obsolescence may be modified based on the following conditions—

- (1) The computer hardware is no longer supported or maintained by the vendor.
- (2) The computer hardware functional capability no longer supports the system software requirements.
- (3) The computer hardware no longer supports information assurance requirements.

b. Systems that require computer hardware re-procurement earlier than the established 5-year cycle are required to forward the request and justification to the CIO/G-6 for review and approval.

c. The materiel developer will negotiate the system transition with the prospective sustaining command to ensure availability of logistics support and configuration management. Once the materiel developer concludes the last year of procurement and the system has transitioned to the sustaining command, the individual owning unit will be responsible for maintaining the equipment in accordance with appropriate technical manuals (TMs). The replacement of components will follow the procedures identified in the TMs. Re-procurement of the system or components with additional or enhanced capabilities will be carried out according to AR 700-127, AR 750-10, and standard configuration management practices for authorized levels of computer hardware.

Chapter 8 Army-Unique Policies

8-1. Milestone decision review fora

At each milestone review, the MDA must have a balance assessment of a program's readiness to proceed into the next acquisition phase. Review fora may be formal or informal at the discretion of the MDA.

a. Army Systems Acquisition Review Council. The ASARC is the Army's senior-level review body for all ACAT I and ACAT II weapon system and C4IT programs. The ASARC is chaired by the ASA(ALT). It is convened at formal milestones to determine a program's readiness to enter the next phase in the materiel acquisition cycle. The ASARC makes recommendations to the AAE on those programs for which the AAE is the MDA.

(1) An ASARC may also convene at any time to review the status of a program. ACAT ID and ACAT IAM programs are subsequently reviewed by the DAB and DOD CIO assessment, respectively.

(2) The executive secretary for the ASARC is responsible for the administrative control of the meeting. An acquisition decision memorandum (ADM) will be prepared by the executive secretary and forwarded for review and approval by the MDA. The executive secretary will also coordinate Army participation in the DOD IT OIPT meeting.

b. ASARC membership. ASARC membership includes the following persons:

- (1) ASA(ALT).
- (2) VCSA.
- (3) ASA(FM&C).
- (4) Commander, TRADOC.
- (5) General Counsel.
- (6) DUSA(OR).
- (7) DCS, G-1.
- (8) DCS, G-2.
- (9) DCS, G-3.
- (10) DCS, G-4.
- (11) Army CIO/G-6.
- (12) DCS, G-8.
- (13) ASA(I&E)
- (14) Chief Legislative Liaison.
- (15) Army Enterprise Office.
- (16) Army Inspector General (nonvoting member).
- (17) ATEC.

Note. Other organizations will be invited to attend at the discretion of the ASA(ALT), if a significant issue is identified within their area of responsibility.

c. In process review. The IPR is the review forum for all ACAT III programs. General policies for the review of IPR programs are the same as for ACAT I and ACAT II programs. Reviews will be conducted at milestones and at other times deemed necessary by the MDA. The MDA or designee will chair the IPR. Agency and command members will provide a representative with authority to represent, act, and commit to action on behalf of the organization.

(1) IPR membership is composed of designated representatives from—

- (a) Functional support organizations.
- (b) CBTDEV (proponent CBTDEV, TNGDEV, and system support organization).
- (c) Logistics.
- (d) Trainer (if different from the CBTDEV or TNGDEV).
- (e) Independent evaluators.
- (f) Others (as determined by the IPR chair).

(2) The documentation will be tailored to the specifics of the program at the discretion of the MDA based on recommendations from the WIPT and the OIPT. As a general rule, basic IPR documentation will be consistent with that required by the ASARC and DAB or CIO reviews.

(3) The MDA will ensure that a record is kept on all non-major systems within their respective mission areas to include a listing of systems, scheduled milestone reviews, an audit trail of IPRs conducted, and documentation of results.

d. Review documentation and programs plans. The MDA is responsible for identifying the minimum amount of information necessary for milestone review purposes. Only those mandatory documentation formats called out in DODI 5000.2 will be required. All other formats will be used as guidance only. Although a formal Simulation Support Plan is not required in support of a milestone decision, the PM's plan for the integrated use of M&S throughout the life cycle of the program will be reviewed at each ASARC/IPR. Program plans belong to the PM and are to be used by the PM

to manage program execution throughout the program's life cycle. Program plans, excluding the TEMP, are not required in support of milestone decisions and will not be used as milestone documentation or as periodic reports.

8-2. Type classification

Type classification (TC) is the process through which the MATDEV identifies the degree of acceptability of a materiel item for Army use. TC provides a guide to authorization, procurement, logistical support, and asset and readiness reporting. TC is the Army's implementation of the DOD financial management regulation requirement for a determination that an item is "accepted for service use" prior to spending procurement funds.

a. Integral part of the process. TC is an integral part of the process leading up to production and deployment and eventual fielding of the item. TC will be executed as part of the WIPT(s) under the control of the PM and will not duplicate any of the other functions associated with the systems acquisition process. As with all facets of acquisition, documentation will be held to an absolute minimum. In meeting the type classification data requirements, include data provided by the contractor, where applicable. Contractor data provided must be verified by a Government source. Final approval of TC is the responsibility of the MDA and that approval will be documented in the acquisition decision memorandum (ADM) no later than the FRP decision review.

(1) Once a TC decision has been rendered by the appropriate MDA and the national item identification number (NIIN) has been processed through the BOIP process, a materiel status record (MSR) request must be submitted through SLAMIS to update Supply Bulletin 700-20 (see para (2)).

(2) Program executive officers/program/project/product managers, through their servicing Integrated Materiel Management Center (IMMC), will use the automated TC/MSR process. Users can request access to SLAMIS on line using the following Internet site: <http://www.slamis.army.pentagon.mil>.

b. Designations. TC designations are as follows:

(1) *Standard.* Standard (STD) is used for materiel items determined to be acceptable for the mission intended, capable of being supported in their intended environment, and acceptable for introduction into the U.S. Army inventory. Standard is also for materiel items that are capable of being made acceptable without any further developmental effort prior to fielding. This designation includes items that have been or are being replaced by new STD items but are still acceptable for the intended missions.

(2) *Generic.* TC-Generic is used only for commercial and nondevelopmental items. It is essentially the first step in a two-step process when make and model are not initially known. In this situation, TC-Generic, based on performance specifications or a functional purchase description, is used to allow the solicitation to proceed. TC-Generic allows award of a limited production contract to test and verify acceptance prior to Milestone C. TC-Standard must be accomplished prior to proceeding to FRP. This procedure also applies to additional procurements if a different make or model number is involved.

(3) *Limited procurement.* Limited procurement (LP) is used when a materiel item is required for special use for a limited time, and the specified limited quantity will be procured without intent of additional procurement of the item under this classification (that is, low rate initial productions, early spiral developments). It is used to meet urgent operational requirements that cannot be satisfied by an item type classified standard. Items designated for TC-LP are those that do not qualify for adoption as standard. Unless otherwise directed by HQDA, a program review must be scheduled within 3 years of TC - LP to determine the continuing need for the item and recommend an extension of the LP expiration date or to reclassify the item to standard.

(4) *Contingency.* Contingency (CON) covers materiel items that no longer fully satisfy U.S. Army operational requirements but have residual value for use in training or as mission essential contingency items (MECIs) for Reserve Components. An item will not be reclassified CON unless it is to be replaced. Specific exceptions require HQDA approval.

(5) *Obsolete.* Obsolete (OBS) items are materiel items that are no longer required or acceptable for U.S. Army use.

(a) Prior to being proposed for reclassification as OBS, items (except organizational clothing and individual equipment authorized by common table of allowances (CTA) will be withdrawn from all Active Army and Reserve Component units. They will no longer be reflected in authorizing documents. Items will then be held for disposal pending the reclassification.

(b) The documentation for item reclassification to OBS, which will result in eventual disposal or open sale, will address the potential disposal and use hazards posed by any radioactive, explosive, toxic, or other hazards presented by the item. The documentation will be included in the system disposal plan. All documentation will specifically address the statutory and regulatory provisions regarding environmental protection.

(c) OBS items will not be reissued to or reprocured for Army units; however, they may be made available to support the international logistics program.

c. Type classification applicability. TC applies to each nonexpendable item of Army equipment, including software that is to be separately authorized by TAADS-Redesign (TAADS-R) or shown as a requirement in the table of organization and equipment (TOE), unless specifically exempted. (This includes modified tables of organization and equipment (MTOEs), tables of distribution and allowances (TDAs), joint tables of allowances (JTAs), and CTAs.) This includes subsystems, selected TADSS, peculiar support equipment, and all TMDE.

(1) In addition, certain other high density, military type expendables such as ammunition (Class V), combat rations, and some durable items may be type classified.

(2) Items will only be type classified for introduction into the force if procurement is planned within the current POM period.

d. Exemptions. Software and certain materiel items do not require TC. However, safety, and health requirements must still be met for items that contain safety or health hazards prior to their acceptance for Army use. Exempt items include the following categories (a specific listing of classes of items that are exempt from TC requirements and the required conditions are provided in DA Pam 70–3):

(1) *Limited distribution items.* Examples include JTA/TDA unit and other Service-adopted items for which the Defense Logistics Agency has responsibility for certifying production; components with issue restricted to schools, training centers, laboratories, maintenance and test activities, and other selected activities; commercial items authorized only by JTA/TDA, not supported by the Army wholesale supply system; all explosive ordnance disposal tools and equipment; sets, kits, and outfits restricted to JTA/TDA, schools and training centers, laboratories or maintenance and test facilities; and National Security Agency (NSA) peculiar items, procured with NSA funds, for Information Systems Command Field Station TDA units.

(2) *Nonstandard items.* Certain nonstandard items, including nonstandard materiel and equipment for the support of Allies but not used by the Army; nonmilitary administrative items such as file cabinets, adding machines, typewriters, office furniture, laundry equipment, and musical instruments; nonstandard materiel and equipment not used by the Army but for which the Army is the DOD item manager or has life-cycle support responsibility; items for contractors or industrial facilities not used by the Army in the field and not requiring Army logistic support; items procured with nonappropriated funds; items for DOD civil defense effort; and nonstandard nonmilitary items for the Armed Forces Radio and Television Service.

(3) *Certain commercial items.* Examples include construction materials excluding mechanical, electromechanical, and electronic items; leased automated data processing equipment, unless planned to procure within current POM and support through DOD logistic system.

(4) *Other.* Generally low cost, low density, or one-of-a-kind and nonstandard or unique application items and equipment.

(5) *TADSS.* All TADSS acquired following DODD 5000.1 and AR 70–1 acquisition process will be type classified. TADSS procured under chapter 6 or 7 or AR 350–38 do not require type classification.

e. Items developed jointly or for other Services. Items developed jointly or for other military services, Government agencies, or international governments will be subject to TC policies and procedures when acquired for U.S. Army use.

f. Items used or developed by other Services or countries. Items accepted for use by other Services, DOD agencies, or countries that can satisfy Army requirements will be acquired according to their approved acquisition strategies. The acceptance decision of the user Service will support Army type classification; however, Army TC–STD prerequisites remain applicable for these items. In addition, international items will be verified as meeting special U.S. operational as well as statutory and ESOH regulatory considerations prior to being accepted into inventory as a TC–STD item.

g. Equipment procured in response to hostilities. Equipment procured in response to hostilities and fielded prior to TC and materiel release will be turned in at the conclusion of hostilities and, within 3 years, either disposed of or type classified based upon user requirements.

h. General TC assignment policy.

(1) The ASARC is responsible for recommending TC of ACAT I and ACAT II programs; the AAE is the TC approval authority, documenting that decision within the ADM. The MATDEV should request convening of an ASARC through the ASARC Secretary. The MATDEV prepares the package for consideration by the ASARC.

(2) For ACAT III, TC is accomplished as part of an IPR. The MDA is the approval authority. For CIE items, the Army Uniform Board (AUB) recommends TC to the Chief of Staff. The Chief of Staff is the approval authority for dress uniforms, clothing bag items, and optional purchase items.

(3) TC will be reviewed by the IPT as part of the preparation for the FRP decision review. TC recommendations are made by IPR IPT members, incorporated into IPR minutes, and approved by the MDA. Type Classification is effective on the date approved by the appropriate decision authority. DA Pam 70–3 shows a sample format that can be used to document TC recommendations as an enclosure to the IPR minutes.

(4) TC actions will be signed by the MDA, and a copy of the action will be forwarded to the Army Materiel Status Office for recording (see materiel status record, DA Pam 70–3, chapter 10, section III). The MSR submission ensures standard LIN assignment and entry into SB 700–20 and completes the documentation in the authorization systems (that is, TOE/MTOE/TDA).

(5) Items being developed for the U.S. Army will not be sold to foreign military sales (FMS) customers prior to TC STD without written HQDA approval. All type reclassification actions should be coordinated with HQDA prior to approval in order to allow assessment of impact on FMS. Foreign releasability should be addressed in IPR packages.

(6) The review body will type reclassify STD items to OBS concurrently with TC of a new item as STD. The replacement items will be considered for new LINs. All items under old LINs will be considered for reclassification to OBS or contingency at the time a replacement item is type classified STD.

(7) Special tools automatically assume the TC awarded to the end item they support and should be tested with the end item as part of the System Support Package.

(8) An item should not be type classified as STD until all major materiel subsystems are eligible for the same TC category. These include components, computer programs, special tools, training aids and devices, TMDE, and other support equipment. The principal end item or items and their subsystems are usually type classified in a single action.

(9) All type classified end items (including separately type classified components) except TC Generic notional items are assigned standard LIN numbers, NSN, and logistic control codes (LCCs). They are entered into the SB 700–20, according to AR 708–1.

(10) Items otherwise required to be type classified will not be type classified unless procurement is planned within the current POM period. For items not in the current POM, an IPR may be held to determine the item's eligibility for TC and to authorize the MATDEV/mission assignee agency to unilaterally type classify at the time procurement is planned.

(11) Materiel will be type classified prior to procurement of production items. When justified, OASA(ALT) may authorize the commitment of appropriated funds for the procurement of long-lead-time materiel that the MATDEV must have to produce the system and achieve the data required for TC. Approval of long-lead-time items does not constitute a waiver of TC.

i. Prerequisites to TC STD. The prerequisites to TC STD are—

(1) Approved requirements document (DODI 5000.2 and AR 71–9).

(2) HQDA approved BOIP, except for systems exempt from BOIP and selected TADSS.

(3) Adequate test and evaluation conducted to assess the technical performance and operational effectiveness, suitability, and survivability (AR 73–1) and a determination made that the item is effective, acceptable, and supportable for the intended mission. This decision is dependent upon the following:

(a) A SER that assesses the technical performance; system safety; and operational effectiveness, suitability, and survivability is complete.

(b) All significant system problems have been identified and low risk solutions to these problems are available.

(4) Assurances the warfighters need for DOTLMPF. Considerations associated with system/equipment are documented.

(5) Army TMDE Activity assessment has been obtained for the acquisition and supportability of TMDE (AR 750–43).

(6) HQDA approved frequency allocation for systems/items that use the electromagnetic spectrum (AR 5–12).

(7) MATDEV/mission assignee agency certifies conformance to environmental regulations or provides certification of exemption (AR 73–1, AR 200–1, and AR 200–2 (32 CFR 651)).

(8) Transportability assessment has been obtained from the MTMC (AR 70–47).

(9) Completion of a Safety and Health Data Sheet (SHDS) and, when required, development of a system safety risk assessment (SSRA). Identified safety and health hazards must be eliminated or controlled to a level acceptable to the appropriate decision authority for the system. A documented SSRA, with the risk acceptance and date indicated, is placed on file with the local Safety Office for any residual safety and health hazards per the Decision Authority Matrix contained in the approved System Safety Management Plan (SSMP) (MIL STD 882 (or its replacement), AR 385–16, AR 40–10).

(10) Request for assignment of an NSN should be submitted to Defense Logistics Services Center (DLSC).

(11) Status of a complete product definition data (PDD) to include rights to use the data, adequate for competitive procurement. If the PDD is not required based on FAR guidance, provide justification to the MDA. The PDD should be available prior to FRP decision review, if competitive procurement is planned following production decision. An inadequate PDD is sufficient justification to defer TC STD, if the approved Acquisition Strategy states that the PDD must be available for procurement.

(12) Production risks and production readiness have been reviewed and assessed by means of production readiness reviews (PRRs).

(13) Producibility should be demonstrated during the system development and demonstration phase as a method of reducing risk in production.

(14) The status of integrated logistic support (AR 700–127), to include software support, will be addressed. This includes an assessment of reliability, maintainability, and ability to rapidly deploy software revisions and associated training material, as well as an identification of open issues and their expected completion dates. Examples of rapid deployment considerations include the use of standardized software downloading equipment and software and the feasibility to use the Internet/World Wide Web for secure software distribution.

(a) The completion of natural environmental testing in the basic climatic design type (AR 70–38), and as contained in appropriate requirements documents and the TEMP.

(b) Items designated specifically or primarily for use in extreme natural environments (that is, hot, cold, and severe cold) should successfully complete the extreme climatic tests for the specific areas of intended use.

(c) Acquisition quantities are limited to requirements for those areas for which environmental testing has been completed, unless a waiver has been granted by the Assistant Secretary of the Army (Installation and Environment).

8-3. Horizontal technology integration

Horizontal technology integration (HTI) is the application of common enabling technologies across multiple systems within a force to increase force effectiveness.

a. *Designation of HTI programs.* The AAE and the Vice Chief of Staff, Army (VCSA) are the HQDA officials responsible for designating HTI programs. The General Officer Working Group (GOWG) is co-chaired by the ASA(ALT) Deputy for Systems Management and Horizontal Technology Integration and the DCS, G-8, Director, Force Development.

b. *HTI General Officer Working Group (GOWG).* Implementation of HTI within the Army is the responsibility of the GOWG. The HTI GOWG recommends to the AAE and VCSA programs for HTI designation and monitors the progress of all Army HTI programs. The GOWG does not have control over program funding and cannot approve an Acquisition Strategy. However, as the designation authority for all HTI programs, the HTI GOWG does determine which programs must comply with the Army's HTI funding policy.

c. *Responsibility of program executive officers (PEO).* In addition to supporting Army Designated HTI programs, PEOs have the authority to implement PEO level HTI programs for technologies and components under their management control. PEOs will advise the HTI GOWG of programs designated as PEO managed HTI programs and provide the GOWG with the status of these programs and initiatives at least annually.

d. *Funding policy.*

(1) HTI programs are jointly developed by an HTI PM and two or more host platform PMs. The host platform PMs are responsible for developing their platform specific A-Kits that will integrate the HTI item into the platform. The HTI PM is responsible for developing the common HTI B-Kit that will be installed on all host platforms. Coordination of RDTE efforts, installation schedules, funding strategies, and other programmatics will be governed by a Memorandum of Agreement (MOA) negotiated between the HTI PM and each Host Platform PM.

(2) Both host and HTI PM are responsible for planning, programming, budgeting and execution of development funds required for their respective systems. The host PM is responsible for all Army procurement appropriations funds required for both the host and HTI systems. The HTI program funds will be planned, programmed, and budgeted within the host system line. The HTI PM is responsible for providing estimates for procurement funds to the host system PM. The host PM will prepare all planning, programming, and budgeting documentation for Procurement Appropriations in coordination with the HTI PM within a unique HTI MDEP. The documents produced will represent a unified position. The host PM is also responsible to plan, program, and budget all appropriations required for the development and procurement of installation kits, integration costs, and cost to install the modification. The host and HTI PM will jointly develop the estimate for funds required for development of the installation kit.

(3) If funds that are authorized and appropriated equal the amount requested in the budget, the funds will be allocated to both host and HTI PM in accordance with the budget submitted by the host PM. If there are deviations between funds received and the budgeted amount, the host and mounted system PMs will jointly determine the allocation of the execution funds received. The office of the AAE will arbitrate unresolved allocations issues. Once an allocation decision is made, execution funds received are then released to both the host and mounted systems. The HTI PM will receive that portion of the Procurement funding allocated for the procurement of the mounted item. Funds provided to the host system for installation of modifications, installation kits, and integration costs may not be reprogrammed without approval of the office of the AAE.

e. *Embedded diagnostics.* To increase commonality in the development of embedded diagnostics, PMs through their PEOs will coordinate their strategy for acquiring embedded diagnostics (built-in-test) with the product manager for TMDE. PMs will develop embedded diagnostics in accordance with their ORDs.

f. *Reconnaissance, surveillance, and target acquisition (RSTA).* To maximize commonality in the development of thermal components, PMs will delegate to the PM NV/RSTA the responsibility for the design, development, production and sustainment of thermal systems and subsystems, except for thermal systems and subsystems used for weapon system control and launch. PM NV/RSTA will develop MOAs with other PM prior to the development of thermal sensors.

g. *HTI and ASARC meetings.* The ASARC secretary will invite HTI PMs and directors of HTI initiatives to ASARC meetings to advise members on potential commonality in systems being reviewed. This will ensure a rigorous review for potential commonality in systems being reviewed.

8-4. Fielding issues and considerations

a. *Supportability.*

(1) Supportability is a critical element that must be considered on all ACAT level programs and is crucial to reducing life-cycle cost. Supportability factors are integral elements of program performance specifications and should be stated as performance requirements that relate to a system's operational effectiveness, operational suitability, and life cycle cost projections. Supportability planning will show a balance between program resources and schedule so that

systems are acquired, designed, and introduced that meet defined capabilities, APB performance design criteria, and are supportable in the field.

(2) Supportability planning and analysis will be conducted as an integral part of the systems engineering process beginning at program initiation and continuing throughout program development. Supportability will be addressed at all program reviews. Supportability analyses will form the basis for related design requirements included in the system specifications and for subsequent decisions concerning how to most cost effectively support the system over its entire life cycle. Supportability analyses will determine the optimum support strategy by looking at contractor and organic support alternatives to determine the life-cycle support that achieves best value while meeting the user's requirements.

(3) The PM (developing/acquiring/fielding systems for the Future Force) will use embedded training and diagnostic/prognostic maintenance techniques to the maximum extent possible to enhance user capability and reduce life-cycle costs. Commercial support resources should be used when they are available, cost effective, and can readily meet the user's requirements. AR 715-9 provides additional policy considerations for contractors accompanying the force on the battlefield.

(4) AR 700-127 provides additional policy and guidance considerations for supportability.

b. Training devices.

(1) The acquisition of a training system that supports a new system or equipment will be assigned the same priority as that of the parent system or equipment. It will be available in time for the fielding of the parent system. Systems will not be fielded without training subsystems. There is to be coincident development and concurrency between the system(s) supported and the training subsystem. A systematically developed training system with appropriate TADSS and embedded training capability provides cost effective training for any given weapon or support system.

(2) Systems that do not include consideration of full supportability will not be fielded. Accordingly, the MDA will ensure total system supportability before approving a system for FRP.

(3) It is the responsibility of PEOs/PMs to ensure that systems/programs have the ability to provide the requisite training aids/devices and that the systems/programs are fully supportable before granting approval to field the system. PEOs/PMs will also ensure that all functions and actions required to support the system are planned, programmed, and budgeted for in all future POMs and budget processes.

(4) PEOs/PMs are responsible for planning, programming, and budgeting for systems and all system support (including training development, infrastructure upgrades, and integration of the system into fielded/developmental live, virtual, and constructive simulation and instrumentation systems) related to new or modified equipment acquisitions. PEOs/PMs will ensure that all system and system support costs (including those system support costs incurred by other than the program managers) related to new or modified equipment acquisitions are captured and included in the systems management decision package for the related acquisition.

c. Materiel release.

(1) The materiel release process is intended to assure that Army materiel is safe and supportable and meets operational requirements before release for issue to users. The materiel release process ensures an orderly and effective deployment and transfer of Army equipment, including all necessary logistic support requirements. Weapon and information systems covered under AR 70-1 must adhere to the materiel release process prior to fielding.

(2) AR 700-142 and DA Pam 700-142 provide current policy, guidance, and procedures for materiel release.

d. Total package fielding.

(1) Total package fielding (TPF) is the Army's primary fielding process and is used to ensure that materiel systems and their needed support are provided to using units with minimal disruption of the unit's day to day mission. TPF minimizes the workload associated with fielding of new equipment by requiring the materiel developer/fielding command to accomplish the up-front determination of all requirements; do the funding and requisitioning of all needed items; consolidate the support items into unit level packages; and make the coordinated distribution of the major system, its ASIOE, and the support packages to a central staging site or to the unit itself.

(2) A successful TPF is characterized by advance planning, coordination, and agreement between the materiel developer/fielding command and the gaining MACOM.

(3) AR 700-142 and DA Pam 700-142 provide additional policy, guidance, and procedures for total package fielding.

e. Source of repair (SOR).

(1) It is DOD policy to maintain adequate organic core depot maintenance capabilities to provide effective and timely response to surge demands, ensure competitive capabilities, and sustain institutional expertise. PMs will conduct a core depot assessment to meet the requirements of 10 USC 2464.

(2) A DOD and Army mandated logical decision process (AR 750-1) supports current source of repair analysis. According to DOD 4151.18 and AR 700-127, materiel developers should use a logical decision process to determine source of depot-level repair. This logical decision process considers maintaining essential core capabilities, assessing private sector risk and obtaining the best value maintenance services, whether by contractor or organic depots. These core capabilities and related workloads must be reviewed at least every 2 years. Core capabilities to repair new weapon systems will be established within 4 years of achieving initial operational capability.

(3) The decision to use contractor support should be based upon analyses of tradeoff alternative support concepts.

The analyses should be based upon supportability analyses performed up-front in the acquisition process. The analyses must show that the contractor support will provide the required support in both peacetime and wartime scenarios, is the most cost-effective method, and is clearly in the Government's best interest.

(4) The Core Logistics Analysis/Source of Repair Analysis must be a part of the Acquisition Strategy and approved at MS B (MS C if no MS B).

8-5. Clothing and individual equipment (CIE)

a. Scope of clothing and individual equipment (CIE). CIE items are relatively low cost items that are worn and used by the individual soldier. They are part of the soldier's equipment and integral components of the Soldier System. As such, they must be functionally compatible. This policy applies to the Active Army, the National Guard Bureau, the Army Reserve, and the ROTC. CIE is worn in accordance with AR 670-1. CIE includes the following three categories:

(1) *Clothing bag items and dress uniform items.* All Army uniforms in the initial and supplemental clothing allowances contained in CTA 50-900 for enlisted soldiers; mess, dress and service uniforms for officers; and optional purchases uniform items for all soldiers (AR 670-1).

(2) *Optional purchase uniforms.* Clothing bag and dress uniform items that officers and enlisted personnel may procure from AMCSS with personal funds.

(3) *Organizational clothing and individual equipment (OCIE).* Items issued to enlisted and officer personnel in accordance with CTA 50-900, CTA 50-909, or CTA 50-970. These items are usually issued from central issue facilities (CIF) and remain the property of the U.S. Army. These items include, but are not restricted to, ballistic/personal protection clothing and equipment; tactical/environmental clothing; nuclear, biological, and chemical clothing and equipment; and individual soldier/unit equipment.

b. Milestone Decision Authority for CIE. The MDA for clothing bag, mess, dress, service, and optional purchase uniform items is the CSA.

(1) The Army Uniform Board (AUB) is the primary review forum for clothing bag, mess, dress, service, and optional purchase uniform items. The AUB resolves issues, provides, and obtains guidance and makes recommendations to the CSA. The CSA approves the initiation of concept development and adoption of these items. The AUB will—

(a) Conduct milestone reviews on new or improved items and make recommendations to the CSA for decision.

(b) Review policies pertaining to the wear of new or improved clothing items.

(2) The requirement for an AUB meeting is usually generated by the receipt of documentation from PM-Soldier requesting a formal milestone review.

(3) The AUB is chaired by DCS, G-4. Membership includes—

(a) ASA(ALT).

(b) DCS, G-1.

(c) Director of Requirements, Office of the DCS, G-3.

(d) Deputy Inspector General.

(e) Director, Army National Guard.

(f) Chief Army Reserve.

(g) Deputy Chief of Staff for Combat Developments, TRADOC.

(h) CG, SBCCOM.

(i) Senior female officer on the Army General or Special Staff.

(j) SMA.

(k) A senior female representative from the OASA(M&RA).

(l) A senior female noncommissioned officer.

(m) A junior enlisted female soldier.

(n) A junior enlisted male soldier.

(4) The DCS, G-4 is authorized to appoint an Associate Army Uniform Board (AAUB) composed of officers and noncommissioned officers to provide advice on uniform matters.

(5) Technical advisors normally invited to the AUB as required are ATEC independent evaluators; Chief, Army Nurse Corps; Public Affairs Office; and others at the request of the Chair, AUB.

c. MDA for OCIE. For all milestones except as noted in *b(1)*, the PEO soldier is the MDA for OCIE. He or she is the MDA for ACAT II OCIE when delegated by the AAE.

d. CIE basis of issue (BOI) documentation. The DA Form 5965-R (Basis of Issue for Clothing and Individual Equipment (CIE)) will be used to coordinate and document the BOI for new CIE items.

8-6. Software blocking

The Department of Defense has a goal of achieving integrated and interoperable warfighting capability in a cross-Service system of systems. The software blocking process is designed to facilitate the development and sustainment of system-of-systems interoperability in support of Army Transformation. The process is described in the software

blocking policy jointly signed by the Army Acquisition Executive and the Vice Chief of Staff, Army. All PEO/PMs will implement this memorandum in their respective programs. The policy applies to all systems that exchange information regardless of their place in the life cycle. The only exception allowed by this policy is for business systems that do not exchange information with tactical C4ISR systems.

8-7. Joint programs

A joint program is any acquisition system, subsystem, component, or technology program with an Acquisition Strategy that includes funding by more than one DOD component during any phase of a system's life cycle. Joint program managers face additional management and operational challenges because of their program's unique acquisition structure.

- a.* Joint program managers will develop an MOA with their participating program component.
- b.* The MOA will specify the relationship and respective responsibilities of the designated lead executive component and the other participating components. The MOA will address, at minimum, system requirements, funding, manpower, capabilities document, approval process and other program documentation. Every joint program is different, and each MOA will be tailored to allow maximum program operational flexibility.
- c.* When an Army agency is designated as the Executive Agent for a joint program, the Army JPM will develop and staff an MOA that is approved by the MDA.
- d.* The Joint Program Management Handbook, a Defense Systems Management College document, provides an excellent in-depth explanation of joint program memorandum of agreements.

8-8. Development, acquisition, and fielding of weapon and information systems with batteries

Battery and related operational and support (O&S) costs consume a large portion of the field commanders' budgets. This situation will become more acute as the Army proceeds towards a digitized battlefield. The Army's objectives are to decrease the number and types of batteries, to increase the power and longevity of batteries, and to reduce the power needs of new systems and equipment. The goal remains in effect for new systems to have either rechargeable batteries or batteries that will last 5 years or longer.

- a.* Army will design equipment to use battery power more efficiently. Power management techniques such as the use of power conserving software and more energy efficient circuitry/components must be considered in all existing and future acquisitions.
- b.* Army will design equipment that uses military or commercial standard rechargeable/reusable batteries for training and garrison operations, where practicable, in future development, product improvement, and production contracts for weapon and information systems using battery power.
- c.* Army will field new equipment using military or commercial standard rechargeable/reusable batteries with an initial issue quantity of the rechargeable battery or batteries and their associated charger.
- d.* Army will use either military preferred batteries or commercial off-the-shelf batteries that will satisfy the above objectives when military or commercial standard rechargeable/reusable batteries are not practical.
- e.* As the U.S. Army Materiel Command's battery manager, the U.S. Army Communication-Electronics Command's Power Sources Center of Excellence (PSCO) has prepared a military preferred battery listing (available on the Internet at www.monmouth.army.mil/cecom/lrc/lrc.html) and model statement of work for commercial off-the-shelf batteries to facilitate PEO/PM efforts in this area.
- f.* PMs will coordinate system battery requirements with the PSCO and obtain Army Acquisition Executive approval when a determination is made to use batteries other than those recommended by the PSCO.
- g.* PSCO will maintain the military preferred battery list current and in-line with the latest technology. The PSCO must also ensure the military preferred battery list encompasses the various requirements for functional area use (for example, communications-electronics, aircraft, ground vehicles, watercraft, and generators).
- h.* These requirements do not apply to batteries used in equipment designed to be disposed of after one-time use or in mines, munitions, and missile applications that are embedded, nonreplaceable, and used one time (for example, when a missile is fired).

8-9. Continuous technology refreshments spares initiatives

- a.* Continuous technology refreshment (CTR) (formerly modernization through spares) is a spares acquisition strategy applied throughout the materiel acquisition life cycle to reduce sustainment costs. It is based on technology insertion and use of commercial products, processes, and practices to extend a system's useful life.
- b.* CTR projects may use O&M funds when—
 - (1) Spares/components must have demonstrated acceptability and military utility.
 - (2) Spares/components are replaced through the normal maintenance process.
 - (3) Spares/components are distributed through the normal supply system.
 - (4) Spares/components provide two way interchangeability with the interfacing equipment. Both the CTR spares and the current inventory spares must be capable of being used interchangeability with the interfacing components and equipment.

(5) Revisions to field and depot maintenance technical documentation conform to the form, fit, function, and interface requirements defined by two-way interchangeability.

c. CTR projects cannot be O&M funded when—

(1) The end item requiring change has not completed production and initial fielding.

(2) Spares/components are incorporated as a block modification, service life extensions or major modifications.

(3) Equipment changes are incorporated where the intent is to increase the system's "performance envelope" or mission capability defined by the Operations Requirements Document.

(4) Developmental testing is required. Source of developmental testing must be RDA.

(5) System software requires changes beyond the scope of necessary documentation consistent with two-way hardware interchangeability noted above.

d. CTR is a procurement strategy. It is not funded separately, but it takes advantage of other funded programs.

8–10. Army responsibilities as Executive Agent for Joint Nuclear, Biological, and Chemical Defense Management

a. The Army has been designated the Executive Agent for the DOD Nuclear, Biological, and Chemical (NBC) Defense Program and will, in conjunction with the other Services, coordinate, integrate and review the DOD NBC Defense Program and provide OSD a Joint Service Modernization Plan, a Joint Service RDA Plan, a consolidated NBC Defense POM, and a Joint Logistics Support Plan.

b. The VCSA and the AAE (or their designated representatives), in order to accomplish the executive agent responsibilities, will co-chair a Joint NBC Defense Board as the designated representatives of the Secretary of the Army.

c. The Joint NBC Defense Board will approve the joint requirements list, the Joint Service Modernization Plan, the Joint RDA Plan, the consolidated NBC Defense POM, joint training and doctrine initiatives, and the Joint NBC Logistics Support Plan. The Joint Defense Board is the initial arbiter for Service concerns.

d. Membership on the Joint NBC Defense Board will include the chair of the Joint Service Integration Group (JSIG), the chair of the Joint Service Materiel Group (JSMG), the PEO Biological Defense, representatives of the Service acquisition executives, the Service operations deputies, the Defense Logistics Agency, the medical community, and the Joint Staff.

Chapter 9

Career management for Army acquisition, logistics and technology workforce

9–1. Acquisition, logistics and technology workforce (AL&TWF)

The AL&TWF is made up of civilian and military professionals who work throughout the life cycle of a system.

a. *AL&TWF definition.* The refined Packard methodology for identifying the Defense acquisition workforce, in conjunction with DOD 5000.52–M, appendixes 1 through 12, is the approved method for identifying key civilian AL&TWF personnel. The methodology uses three categories of occupations and two groupings of organizations to identify the workforce. It does not identify support personnel. There are positions in the Army that do not fall under the refined Packard definition but perform acquisition duties in accordance with DOD 5000.52–M and are counted as acquisition. The refined Packard methodology has no impact on the current Army policy for identifying military acquisition positions and accessing military workforce members into the AL&TWF.

b. *Critical acquisition positions (CAP).* Critical acquisition positions (CAPs) are senior-level acquisition positions at the grade of GS–14/personnel demonstration project equivalent converted broadband and LTC and above. Only Acquisition Corps members may fill CAP positions.

c. *Army Acquisition Corps (AAC).* The AAC is a subset of the AL&TWF.

(1) Civilian accession into the AAC is limited to those who apply for and are accepted into a CAP or to GS–13s with Corps eligible (CE) status and level III certification in an acquisition career field who apply for membership and are accepted.

(2) Military officers are accessed into the AAC by an accession board at the minimum grade of major.

(3) Minimum AAC accession requirements are determined by DOD 5000.52–M, appendix 13. Civilians seeking AAC membership must sign a mobility statement and a service obligation agreement to serve in a CAP. Military AAC members must sign a service obligation agreement to serve in a CAP.

d. *Corps eligible status.* Corps eligible (CE) membership is not restricted by grade or status. Membership is open to members of the AL&TWF, other Government agencies, and the private sector who meet the Acquisition Corps statutory requirements and who are level II certified or have level II training in an acquisition career field. CE qualification standards are identical to those for AAC membership, except that CE has no grade restrictions. Application may be made at any time.

9-2. AL&TWF management

The Director of Acquisition Career Management is appointed by the AAE to assist in the accession, training, education, and career development of the acquisition workforce. The Director of Acquisition Career Management assists the AAE in implementing the Defense Acquisition Workforce Improvement Act (DAWIA) and DOD regulations pertinent to the AL&TWF. The director's implementation strategy includes high quality education, training, and other career broadening programs to enhance the AL&TWF member's professional competencies and leadership skills.

a. Deputy Director, Acquisition Career Management. The director designates a deputy to assist in the development of policy and procedures concerning the implementation of DAWIA.

b. The Army Acquisition Career Program Board. The Army Acquisition Career Program Board (ACPB) advises the AAE on managing the accession, training, education, retention, and career development of military and civilian personnel in the acquisition workforce. The Board is chartered by the Secretary of the Army, pursuant to the authority of Section 1202, Title 10, United States Code (10 USC 1202) and Section 1706, Title 10, United States Code (10 USC 1706). The Secretary of the Army also provided authority to establish a subordinate board structure to which the functions and responsibilities of the ACPB may be delegated.

9-3. Central management

Central management is a means to develop the Army's future acquisition leaders through training and career development programs and challenge them with demanding positions and assignments.

a. Central selection boards. Central selection boards play a key role in the career management process. Boards for "best qualified" are for project manager (PM) (colonel/GS-15), product manager (PM) (lieutenant colonel/GS-14), acquisition command positions and for attendance at senior Service schools. Other boards, such as those for education, training, and experience, make selections based on the career development needs of the individual and the needs of the Army.

b. Career Acquisition Personnel Position Management Information System. The Career Acquisition Personnel Position Management Information System (CAPPMIS) facilitates central management by serving as the single source of information on acquisition personnel and positions. It provides consolidated data on personnel education, training, experience, and positions.

c. Acquisition Career Record Brief/Officer Record Brief/Army Reserve Acquisition Corps Management Information System. Civilian, Army National Guard, and enlisted workforce members use the Acquisition Career Record Brief (ACRB) as their official record for documenting acquisition training, work experience, education, awards, certifications, and current position information. Military officers use the Officer Record Brief (ORB) as their official record for documenting their training, work experience, education, awards, certifications, and current position information. The Army Reserve uses the Army Reserve Acquisition Corps Management Information System (ARACMIS) as their official document.

d. Senior rater potential evaluation. Civilian AL&TWF members are evaluated using an annual performance appraisal. The senior rater potential evaluation (SRPE) complements the annual performance appraisal by providing an assessment of the workforce member's leadership potential. The SRPE is required for all GS-13, GS-14, GS-15/ personnel demonstration program equivalent converted broadband workforce members. The SRPE is the civilian equivalent of part VII, senior rater potential evaluation, of the officer evaluation report.

e. Career management individual file. The career management individual file (CMIF) is used to assess candidates for central PM/command boards, training and education boards, and assignments. Civilian CMIFs are maintained on CAPs and members of the Competitive Development Group Program. The civilian CMIF consists of an updated ACRB, abbreviated work history in the form of a resume, performance evaluations and support forms, the SRPE, the individual development plan (IDP), a mobility agreement, a written service agreement, and a copy of the Notification of Personnel Action assigning the individual to the current position. The Acquisition Management Branch at the HRC maintains the CMIF. The officer CMIF contains, at a minimum, an ORB, all OERs, and an official photograph.

9-4. AL&TWF policy

a. Career development as a mission. DAWIA focuses heavily on a systematic approach to making the AL&TWF more professional by addressing specific requirements for work assignments, experience, education, and training. The organization must plan for and release workforce personnel for mandatory and other training, education, and developmental opportunities that enable them to better accomplish the Army's acquisition mission.

b. Civilian Acquisition Career Development Plan. The Civilian Acquisition Career Development Plan (ACDP) was developed to help AL&TWF members focus on the skills, knowledge, and competencies needed to be competitive. The plan is composed of four processes: Structure/Position Management, the Development Model, Career Management Model, and the Competency Model. Civilian AL&TWF members use this model in planning their career.

c. Military Leader Development Model. This model is used for all AAC officers and is defined in DA Pam 600-3. This is the single authoritative source for information on AAC officer entry qualifications, accession procedures, assignments, training, and education.

d. Individual development plan (IDP). Military and civilian members of the AL&TWF, regardless of rank or grade,

maintain an individual development plan (IDP). The IDP is to be updated annually and is used to identify an acquisition professional's career objectives in the areas of experience, education, and training.

e. Certification. DAWIA requires that the Secretary of Defense establish education, training, and experience requirements for all acquisition positions based on the level of complexity of the duties carried out in the position. The acquisition career field functional boards established position requirements and separated these into three levels based on complexity. Each command determines the certification level and the acquisition career field category required by the position. The career levels are described in DOD 5000.52-M, paragraph C.2.2. AL&TWF members are required to be certified at the appropriate acquisition career level commensurate with the rank or grade level and acquisition position category required of the position for which they hold or are selected. Once in an acquisition position, a workforce member has up to 18 months to meet the level of certification required of the position or obtain a waiver. AAC membership requires a minimum of level II certification or training. Therefore, individuals selected for a CAP must have level II certification or training at the time of selection; they then have up to 18 months to become level III certified as required for all CAPs. Obtaining the certification level required of the position is a condition of employment.

f. Continuous learning. The Under Secretary of Defense for Acquisition, Technology and Logistics prescribes a policy on continuous learning that requires that all military and civilian acquisition personnel earn 40 continuous learning points (CLPs) a year or a total of 80 CLPs in a 2-year period. The workforce member's first and most important responsibility concerning CLP is to meet the position certification requirements. CLPs are awarded for all courses taken for certification and for a wide range of career-broadening activities. These activities include certifications at a higher level or in other career fields, leadership training, developmental assignments, advanced degrees, and participation in career professional activities.

g. Acquisition Education, Training, and Experience (AETE) Program. The Acquisition Support Center has developed an extensive Acquisition Education, Training, and Experience (AETE) Program in response to the career management requirements for the AL&TWF. Boards are held to select applicants based on needs of the workforce member and the Army. Opportunities include senior Service schools, degree completion, leadership development, and developmental assignments. Applicants must meet all the course prerequisites outlined in the AETE Catalog found at <http://asc.army.mil/portal.cfm>.

h. The Competitive Development Group. The Competitive Development Group (CDG) Program is a competitive civilian 3-year developmental training program that offers high-potential, board-selected AL&TWF members with Corps eligible status and level III certification expanded training, leadership, and other career development opportunities. Upon successful completion of the program, CDG members are accessed into the AAC if they are not already members. CDG members are required to apply to the Army's PM/Command Board during years 2 and 3 of the program.

i. The Department of Defense's Acquisition Career Management Mandatory Course Fulfillment Program and Competency Standards. The fulfillment program allows AL&TWF members and non-AL&TWF individuals to receive credit for mandatory Defense Acquisition University (DAU) courses for which they already have the required competencies.

j. Acquisition Career Experience Program. The Acquisition Career Experience (ACE) Program was established by the Director of Acquisition Career Management to expose college students to the acquisition corps as a career. ACE is a paid 2-year summer employment program intended to recruit full-time college sophomores and juniors with multidisciplined technology and/or business backgrounds. ACE students may be noncompetitively accepted into an intern program after completing their college education.

k. Regional Rotational Development Assignment Program. The Regional Rotational Development Assignment Program is a regionally managed program with central oversight by the Acquisition Support Center (ASC). It is a program established to support the AAC's objective of a highly skilled and multifunctional workforce by allowing members of the program to gain experience in another career field or another organization while remaining on their parent TDA.

l. AETE Regional Training Program. The Regional Training Program allows regional directors the chance to offer on-site training and experience opportunities that are geared specifically to the needs of their AL&TWF.

m. Acquisition Tuition Assistance Program. The Acquisition Tuition Assistance Program (ATAP) is available for civilian AL&TWF members who wish to complete a baccalaureate degree or meet the business hour requirement cited in DAWIA. ATAP is also available for civilian AAC and CE members with level III certification in an acquisition career field who are interested in pursuing graduate study in an acquisition related subject. ATAP is not authorized for study beyond a master's degree. ATAP funding may only be used for study at accredited colleges or universities within the workforce member's local commuting area. Classes outside the local area must be approved by the Deputy Director of Acquisition Career Management. Classes will be taken during nonduty hours.

n. Waivers. The statutory and DOD requirements for acquisition positions are established in DAWIA and DOD instructions and documents. Waiver authority and guidance for tenure requirements, CAP requirements, and position-specific requirements are established in DOD 5000.52-M, appendix 13. Waivers are required for occupants of CAPs who do not meet assignment specific qualifications and CAP requirements.

o. Selection and placement of civilians in AL&TWF positions. Army policy supplements Office of Personnel

Management and Department of Defense qualification standards for DA civilian positions by documenting DAWIA requirements for filling acquisition positions.

(1) The policy applies to civilians seeking selection to permanent, temporary, or term positions in the AL&TWF, to include CAPs that require AAC membership. The policy does not cover selection to the Senior Executive Service or to AAC placement programs, such as those for program, project, and product managers.

(2) All GS-14 and above/equivalent personnel demonstration project broad band positions falling under the refined Packard methodology for identifying the AL&TWF are considered to be CAPs. Only the Director of Acquisition Career Management has the authority to remove these positions from the AL&TWF.

(3) Selection of CAPs will be made from those in, or otherwise qualified for, the Acquisition Corps, unless waived in writing by the appropriate authority.

(4) All individuals, including those from outside the Federal government, may be selected for AL&TWF positions if they meet the requirements for basic eligibility and qualification established for a position and meet the requirements for education, training, and experience, or the equivalent, for AC membership as established by DODI 5000.58 and DOD 5000.52-M.

p. Reciprocity. DOD policy mandates the acceptance of acquisition corps membership and acquisition career field certification throughout the entirety of the Defense community. The certification(s) and Acquisition Corps membership achieved while employed by another Service is fully recognized by the Army.

q. Defense Acquisition University. The DAU provides mandatory, assignment-specific, and continuing education courses for military and civilian personnel within the Department of Defense. It provides the mandatory training required for certification in each of the acquisition career fields.

Appendix A References

Section I Required Publications

AR 70-44

DOD Engineering for Transportability. (Cited in para 4-2a.)

AR 70-47

Engineering for Transportability. (Cited in paras 4-2a and 8-2i(8).)

AR 73-1

Test and Evaluation Policy. (Cited in paras 1-5d, 5-1b, 5-8d, 7-3a, 7-13, 7-4, 8-2i(3), and 8-2i(7).)

CJCSI 3170.01C

Joint Capabilities Integration and Development System. (Cited in paras 1-5c, 1-5t, and 7-3.) (Available at http://www.dtic.mil/cjcs_directives/.)

CJCSI 6212.01B

Interoperability and Supportability of National Security Systems, and Information Technology Systems. (Cited in para 7-3.) (Available at http://www.dtic.mil/cjcs_directives/.)

DODD 5000.1

The Defense Acquisition System. (Cited in paras 1-1a, 6-2d, 6-6a, 7-3, and 7-7.) (Available at <http://www.dtic.mil/whs/directives/>.)

DODI 5000.2

Operation of the Defense Acquisition System. (Cited in paras 1-1, 1-4, 1-5c(1), 3-2, 3-6a, 3-6b(1), 3-6b(4), 3-8b, 4-3e(5), 5-6, 7-3, 7-5, 7-6, 7-7, 7-9a, 8-1d, 8-2i(1), and D-2.) (Available at <http://www.dtic.mil/whs/directives/>.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read a related publication to understand this regulation.

Defense Acquisition University Catalog

Meeting Acquisition Corps Education Standards (app F). (Obtain at <http://www.dau.mil/catalog/>.)

ADS-99-03-GD

Department of Defense Mandatory Course Fulfillment Program and Competency Standards. (Obtain at <http://www.dau.mil/career/files/fulfill99.pdf>.)

AFARS

Army Federal Acquisition Regulation Supplement. (Available at <http://deskbook.dau.mil/>.)

AR 1-1

Planning, Programming, Budgeting, and Execution System

AR 5-5

Army Studies and Analyses

AR 5-10

Stationing

AR 5-11

Management of Army Models and Simulations

AR 5-12

Army Management of the Electromagnetic Spectrum

AR 5-20
Commercial Activities Program

AR 5-23
Army Major Item Systems Management

AR 10-5
Headquarters Department of the Army

AR 10-16
United States Army Nuclear and Chemical Agency

AR 10-85
United States Army Cost and Economic Analysis Center

AR 10-87
Major Army Commands in the Continental United States

AR 10-88
Field Operating Agencies, Office of Chief of Staff, Army

AR 11-2
Management Control

AR 11-18
The Cost and Economic Analysis Program

AR 15-41
Nuclear and Chemical Survivability Committee

AR 25-1
Army Information Management

AR 25-400-2
The Army Records Information Management System (ARIMS)

AR 40-5
Preventive Medicine

AR 40-10
Health Hazard Assessment Program in Support of the Army Materiel Acquisition Decision Process

AR 40-61
Medical Logistics Policies & Procedures

AR 70-38
Research, Development, Test and Evaluation of Materiel for Extreme Climatic Conditions

AR 70-1
Army Acquisition Policy

AR 70-41
International Cooperative Research, Development, and Acquisition

AR 70-25
Use of Volunteers as Subjects of Research

AR 70-50/AFJI 16-401/NAVAIRINST 8800.3A
Designating and Naming Defense Military Aerospace Vehicles

AR 70-75

Survivability of Army Personnel and Materiel

AR 71-9

Materiel Requirements

AR 71-32

Force Development and Documentation-Consolidated Policies

AR 75-15

Responsibilities and Procedures for Explosive Ordnance Disposal

AR 200-1

Environmental Protection and Enhancement

AR 200-2

Environmental Effects of Army Actions

AR 210-20

Master Planning for Army Installations

AR 210-21

Army Ranges and Training Land Program

AR 340-26

Duplicate Emergency Files Program

AR 350-1

Army Training and Education

AR 350-38

Training Device Policies and Management

AR 380-5

Department of the Army Information Security Program

AR 380-19

Information Systems Security

AR 380-381 (S)

Special Access Programs (SAPs) (U)

AR 381-11

Production Requirements and Threat Intelligence Support to the U.S. Army

AR 385-10

The Army Safety Program

AR 385-16

System Safety Engineering and Management

AR 385-61

The Army Chemical Agent Safety Program

AR 385-64

U.S. Army Explosives Safety Program

AR 385-69

Biological Defense Safety Program

AR 405-70

Utilization of Real Property

AR 415-15

Army Military Construction Program Development and Execution

AR 415-28

Real Property Category Codes

AR 525-22 (S)

Electronic Warfare (EW) Policy (U)

AR 530-1

Operations Security (OPSEC)

AR 602-1

Human Factors Engineering Program

AR 602-2

Manpower and Personnel Integration (MANPRINT) in the System Acquisition Process

AR 690-950

Career Management

AR 700-90

Army Industrial Base Process

AR 700-127

Integrated Logistic Support

AR 700-142

Materiel Release, Fielding, and Transfer

AR 708-1

Logistics Management Data and Cataloging of Supplies and Equipment

AR 711-6

Army Participation in the Defense Logistics Agency Weapon System Support Program

AR 715-9

Contractors Accompanying the Force

AR 750-1

Army Materiel Maintenance Policy

AR 750-10

Army Modification Program

CJCSM 3170.01

Operation of the Joint Capabilities Integration and Development System (Available at http://www.dtic.mil/cjcs_directives/.)

CTA 8-100

Army Medical Department Expendable Supplies

CTA 50-900

Clothing and Individual Equipment

CTA 50-909

Field and Garrison Furnishings and Equipment

CTA 50-970

Expendable/Durable Items (Except: Medical, Class V, Repair Parts and Heraldic Items)

DA Pam 5-11

Verification, Validation, and Accreditation of Army Models and Simulations

DA Pam 70-3

Army Acquisition Procedures

DA Pam 73-1

Test and Evaluation in Support of Systems Acquisition

DA Pam 600-3

Commissioned Officer Development and Career Management

DA Pam 700-55

Instructions for Preparing the Integrated Logistic Support Plan

DA Pam 700-142

Instructions for Materiel Release, Fielding, and Transfer

DFARS

Defense Federal Acquisition Regulation Supplement. (Available at <http://www.acq.osd.mil/dp/dars/dfars.html>.)

DOD 4120.24-M

DoD Standardization Program (DSP) Policies and Procedures

DOD 4140.1-R

DoD Supply Chain Materiel Management Regulation

DOD 5000.4-M

Cost Analysis Guidance and Procedures

DOD 5000.52-M

Acquisition Career Development Program

DODD 1430.13

Training Simulators and Devices

DODD 3405.1

Computer Programming Language Policy

DODD 4151.18

Maintenance of Military Materiel

DODD 4630.5

Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS). (Available at <http://www.dtic.mil/whs/directives>.)

DODD 5000.52

Defense Acquisition Education, Training, and Career Development Program

DODD 5000.57

Defense Acquisition University

DODD 5000.59

DOD Modeling and Simulation (M&S) Management

DODD 5160.62

Single Manager Responsibility for Military Explosive Ordnance Disposal Technology and Training (EODT&T)

DODD 5160.65

Single Manager for Conventional Ammunition (SMCA)

DODD 5200.1

DOD Information Security Program

DODD 5200.39

Security, Intelligence, and Counterintelligence Support to Acquisition Program Protection

DODD 5335.2

Defense Supply Service–Washington (DSS–W)

DODD 8500.1

Information Assurance (IA)

DODI 4120.24

Defense Standardization Program (DSP)

DODI 4630.8

Procedures for Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS). (Available at <http://www.dtic.mil/whs/directives/>.)

DODI 5000.55

Reporting Management Information on DOD Military and Civilian Acquisition Personnel and Positions

DODI 5000.58

Defense Acquisition Workforce

DODI 5000.61

DOD Modeling and Simulation (M&S) Verification, Validation, and Accreditation (VV&A)

DODI 8500.2

Information Assurance (IA) Implementation

FAR

Federal Acquisition Regulation. (Available at <http://deskbook.dau.mil/>.)

FM 3–100.21

Contractors on the Battlefield Handbook

Handbook

DOD Technology Protection Handbook. (Available at <http://library.saalt.army.mil/>.)

Handbook

Joint Program Management Handbook (A Defense Systems Management College document). (Obtain from Defense Acquisition University (CDSC-PM), Fort Belvoir, VA 22060–5565.)

Interim Defense Acquisition Guidebook

Formerly DOD 5000.2–R. (Obtain at <http://dod5000.dau.mil/>.)

MIL–HDBK–217

Parts Count Reliability Prediction of Electronic Equipment. (Obtain at <http://assist/daps/dla.mil/>.)

MIL–STD–130L

Department of Defense Standard Practice Identification Marking of U.S. Military Property. (Obtain at <http://www.acq.osd.mil/uid/MIL–STD–130L.pdf>.)

MIL–STD–882

Standard Practice for System Safety Program Requirements. (Obtain at <http://assist/daps/dla.mil/>.)

OMB Circular A-131

Value Engineering. (Obtain at <http://www.whitehouse.gov/omb/circulars/a131/a131.html>.)

Public Law 104-106, Section 4306

Value Engineering for Federal Agencies. (Obtain at <http://thomas.loc.gov/>.)

SB 700-20

Army Adopted/Other Items Selected for Authorization/List of Reportable Items. (This item is included on EM 0007.)

USC

Title 41, Chapter 7, Section 432, Value Engineering. (Obtain at <http://thomas.loc.gov/>.)

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

The forms listed below are available on the Army Electronic Library (AEL) CD-ROM (EM0001) and the Army Publishing Directorate Web site at <http://www.apd.army.mil>.

DA Form 2028

Recommended Changes to Publications and Blank Forms

DA Form 5965-R

Basis of Issue for Clothing and Individual Equipment (CIE)

Standard Form 328

Certificate Pertaining to Foreign Interests

Appendix B

Status of Policy Statements

B-1. Incorporated and rescinded policy statements

Policy statements incorporated into this regulation and policy statements rescinded are listed below.

Table B-1

Status of incorporated and rescinded policy statements

Policy statement: SARD-PR, 29 April 1997 memorandum

Subject: Management of the Total Life Cycle for Acquisition Category (ACAT) Systems

Status: (rescinded with this publication).

Policy statement: SARD-ZA, 12 January 1998 memorandum

Subject: Implementation of Army Strategy for Modernization Through Spares (MTS) (co-signed by the Commander, U.S. Army Materiel Command and the Assistant Secretary of the Army (Research, Development and Acquisition)

Status: (rescinded with this publication).

Policy statement: SARD-SI, 29 January 1998 memorandum

Subject: Centralized Management Policy for Integration of Thermal Technology into Army Systems

Status: (rescinded with this publication).

Policy statement: SARD-SI, 29 January 1998 memorandum

Subject: Horizontal Technology Integration (HTI) Participation at the Army Systems Acquisition Review Council (ASARC)

Status: (rescinded with this publication).

Policy statement: SARD-SI, 29 January 1998 memorandum

Subject: Implementation of Reconnaissance, Surveillance, and Target Acquisition System and Subsystem Commonality

Status: (rescinded with this publication).

Table B-1
Status of incorporated and rescinded policy statements—Continued

Policy statement: SARD-RP, 4 May 1998 memorandum

Subject: Total Ownership Cost Reduction

Status: (rescinded with this publication).

Policy statement: SARD-ZS, 30 September 1998 memorandum

Subject: Fielding of Equipment Without Proper Training Devices

Status: (rescinded with this publication).

Policy statement: SARD-SI October 30, 1998 memorandum

Subject: Project Managers Supporting the Fielding Process

Status: (rescinded with this publication).

Policy statement: SAAL-ZL, 29 July 1999 memorandum

Subject: Depot Maintenance Policy

Status: (rescinded with this publication).

Policy statement: SARD-RP, 7 September 1999 memorandum

Subject: Support Concepts for Acquisition Category Programs

Status: (rescinded with this publication).

Policy statement: SAAL-RP, 30 September 1999 memorandum

Subject: Army Guidance Regarding Appropriation Sources for Continuous Technology Refreshments Spares Initiatives

Status: (rescinded with this publication).

Policy statement: SAAL-RP, 25 October 1999 memorandum

Subject: Basis of Issue Plan Feeder Data

Status: (rescinded with this publication).

Policy statement: SAAL-RP, 4 January 2000 memorandum

Subject: Development, Acquisition and Fielding of Weapon and Information Systems with Batteries

Status: (rescinded with this publication).

Policy statement: DAPR-FDH, 12 April 2000 memorandum

Subject: Army System of Systems and Unit Set Fielding Directive.

Status: (incorporated into this publication.)

Policy statement: SAAL-SI, 18 August 2000 memorandum

Subject: Managing Acquisition Programs as Families of Systems

Status: (rescinded with this publication).

Policy statement: The Chief of Staff, 19 March 2001 memorandum

Subject: Approval of Army Warfighting Requirements

Status: (incorporated into this publication.)

Policy statement: SAAL-RP, 10 April 2001 memorandum

Subject: The New Defense Acquisition Policies and Army Positions

Status: (rescinded with this publication).

Policy statement: SAAL-RP, 18 July 2001 memorandum

Subject: Army Joint Program Policy

Status: (rescinded with this publication).

Policy statement: DAPR-FDT, 18 September 2001 memorandum

Subject: Army Software Blocking Policy

Status: (incorporated into this publication.)

Policy statement: USD(ATL), 19 January 2002 memorandum

Subject: Cost-as-an-Independent Variable (CAIV) and Spiral Development Implementation Plans

Status: (incorporated into this publication.)

Policy statement: SAAL-PC, 28 January 2002 memorandum

Subject: Contractor Systems Support During Contingency Operations

Status: (incorporated into this publication.)

Policy statement: SAAL-RP, 17 June 2002 memorandum

Subject: Milestone Decision Authority (MDA) for Acquisition Category (ACAT) II and III Programs and Upgrade to the ACAT Database

Table B-1
Status of incorporated and rescinded policy statements—Continued

Status: (rescinded with this publication).

Policy statement: SAAL-PS, 11 June 2002 memorandum

Subject: Contractor Support Restrictions

Status: (incorporated into this publication.)

Policy statement: SAAL-RP, 2 October 2002 memorandum

Subject: Fielding Systems With Complete Training and/or Unit Support Systems

Status: (rescinded with this publication).

Policy statement: SAAL-ZP, 20 December 2002 memorandum

Subject: Army Staff Proponent for Contractors on the Battlefield (CoB). Dwyer 71

Status: (incorporated into this publication.)

Policy statement: USD(ATL), 7 March 2003 memorandum

Subject: Total Life Cycle Systems Management and Performance Based Logistics

Status: (incorporated into this publication.)

B-2. Source of statements

Policy statements listed in paragraph B-1 can be found at: <http://library.saalt.army.mil/>.

Appendix C **PM's Bill of Rights and Responsibilities**

C-1. Program manager rights

Program managers have the RIGHT to—

- a.* A single, clear line of authority from the Defense Acquisition Executive.
- b.* Authority commensurate with their responsibilities.
- c.* Timely decisions by senior leadership.
- d.* Be candid and forthcoming without fear of personal consequences.
- e.* Speak for their program and have their judgments respected.
- f.* The best available training and experience for the job.
- g.* Adequate financial and personnel resources.

C-2. Program manager responsibility

Program managers have the RESPONSIBILITY to—

- a.* Accept program direction from acquisition executives and implement it expeditiously and conscientiously.
- b.* Manage their programs to the best of their abilities within approved resources.
- c.* Be customer focused and provide the user with the best, most cost-effective system or capability.
- d.* Innovate, strive for optimal solutions, seek better ways to manage, and provide lessons learned to those who follow.
- e.* Be candid about program status, including risks and problems as well as potential solutions and likely outcomes.
- f.* Prepare thorough estimates of financial and personnel resources that will be required to manage the program.
- g.* Identify weaknesses in the acquisition process and propose solutions.

Appendix D Management Control Evaluation for Non-Major Defense Acquisition Programs at Milestone Decision Reviews

D-1. Function

The function covered by this evaluation is the acquisition of non-major defense acquisition programs, ACATs II and III.

D-2. Key management controls

The key management controls for this function are the milestone documentation requirements specified in DODI 5000.2 as tailored by the MDA.

D-3. Management control evaluation process

These key management controls must be evaluated using the MDR process. These management control evaluations should be included in the PEO/MAT CMD CDR/PM's 5-year Management Control Plan (see AR 11-2). Because these management control evaluations are conducted as part of MDRs, they will follow the schedule established by each major program for these reviews, rather than following the uniform fiscal year schedule normally used in Management Control Plans. The Acquisition Decision Memorandum will serve as the documentation for the evaluation. All documentation required by the milestone decision authority for each milestone decision review must be retained on file in the program office for the life of the program.

Appendix E Management Control Evaluation Process for Major Defense Acquisition Programs at Milestone Decision Reviews

E-1. Function

The function covered by this evaluation is the acquisition of Major Defense Acquisition Programs, Acquisition Category (ACAT) I and Major Automated Information Systems IA.

E-2. Key management controls

The key management controls for this function are the milestone documentation requirements specified in DODI 5000.2.

E-3. Management control evaluation process

These key management controls must be evaluated using the MDR process. These management control evaluations should be included in the PEO/PM's 5-year Management Control Plan (see AR 11-2). Because these management control evaluations are conducted as part of MDRs, they will follow the schedule established by each major program for these reviews, rather than following the uniform fiscal year schedule normally used in Management Control Plans. The Acquisition Decision Memorandum will serve as the documentation for the evaluation. All documentation required by the milestone decision authority for each milestone decision review must be retained on file in the program office for the life of the program.

Glossary

Section I Abbreviations

AAFES

Army and Air Force Exchange Service

ABCA

American, British, Canadian, and Australian

ACSIM

Assistant Chief of Staff for Installation Management

AGR

Active Guard Reserve

AMC

U.S. Army Materiel Command

AMEDD

Army Medical Department

ASARC

Army Systems Acquisition Review Council

ASC

Automation Security Committee

BOIP

basis-of-issue plan

CCB

Configuration Control Board

CCH

Chief of Chaplains

CECOM

Army Communications-Electronics Command

CFR

Code of Federal Regulations

CG

commanding general

CIF

Central Issue Facility

CMIF

career management individual file

COE

Chief of Engineers

COMSEC

communications security

COOP

continuity of operations plan

CW

chemical warfare

DA

Department of the Army

DCS

Deputy Chief of Staff

DFARS

Department of Defense Federal Acquisition Regulation Supplement

DIA

Defense Intelligence Agency

DLSC

Defense Logistics Services Center

DOD

Department of Defense

DODD

Department of Defense directive

DODI

Department of Defense instruction

ECP

engineering change proposal

EOD

explosive ordnance disposal

EW

electronic warfare

FAR

Federal Acquisition Regulation

FC

functional chief

FD/SC

failure definitions/security criteria

FMS

foreign military sales

FY

fiscal year

GC

General Counsel

GO

general officer

HCA

head of contracting activity

HFE

human factors engineering

HQ

headquarters

IDP

individual development plan

ILS

integrated logistics support

INSCOM

U.S. Army Intelligence and Security Command

IOC

initial operational capability

IPR

in process review

JTA

joint table of allowances

LCC

logistic control codes

LOGCAP

logistic civil augmentation program

MACOM

major Army command

MOU

Memorandum of Understanding

MSC

major subordinate command

MPA

Military Personnel, Army

MTMC

Military Traffic Management Command

MTOE

modified table of organization and equipment

MWR

morale, welfare, and recreation

NBC

nuclear, biological, chemical

NCR

National Capital Region

NET

new equipment training

NETP

new equipment training program

NGB

National Guard Bureau

NSA

National Security Agency

NSN

national stock number

OB; OBS

obsolete

OMA

Operation and Maintenance, Army

OPSEC

operations security

ORB

Officer Record Brief

OSD

Office of the Secretary of Defense

OT

operational test

OTE

operational test and evaluation

Pam

pamphlet

PBD

program/budget decision

PM

program, project, product manager

PMO

program/project management office

POM

program objective memorandum

PPBS

planning, programming, and budgeting system

PPSP

Post-Production Support Plan

R&D

research and development

RDTE

research, development, test, and evaluation

RPA

Reserve Personnel, Army

RPSTL

repair parts and special tool list

SAR

selected acquisition report

SIGINT

signals intelligence

SOC

U.S. Army Special Operations Command

TAA

Total Army Analysis

TDA

tables of distribution and allowances

TMDE

test, measurement, and diagnostic equipment

TOE

tables of organization and equipment

TRADOC

United States Army Training and Doctrine Command

TSARC

Test Schedule and Review Committee

TSG/OTSG

The Surgeon General/Office of the TSG

USACE

United States Army Corps of Engineers

USAKA

United States Army Kwajalein Atoll

USASC

United States Army Safety Center

USC

United States Code

VCSA

Vice Chief of Staff, U.S. Army

VECP

Value Engineering Change Proposal

WG

working group

Section II

Terms

Acquisition function

A group of related acquisition workforce activities having a common purpose within the DOD acquisition system (DODI 5000.58).

Acquisition Plan

A formal written document reflecting the specific actions necessary to execute the approach established in the approved Acquisition Strategy and guiding contractual implementation. Refer to Federal Acquisition Regulation (FAR) Subpart 7.1, Defense Federal Acquisition Regulation Supplement (DFARS) Subpart 207.1, and Acquisition Strategy in this glossary.

Acquisition position

A designated civilian or military billet that is in the DOD acquisition system, has acquisition duties, and falls in an acquisition position category established by the Under Secretary of Defense for Acquisition and Technology (DODI 5000.58).

Acquisition program

A directed funded effort that provides a new, improved, or continuing materiel, weapon or information system or service capability in response to an approved need.

Acquisition position categories (APC)

Functional subsets of acquisition positions. There are fourteen position categories: acquisition logistics; auditing; business, cost estimating, and financial management; communication-computer systems; contracting; education, training and career development; industrial property management; manufacturing and production; program management; program management oversight; purchasing; quality assurance; systems planning, research, development and engineering; test and evaluation engineering.

Army Acquisition Corps (AAC)

A subset of the Army Acquisition Workforce composed of acquisition professionals in the grade of O-4 or GS-13 and above.

Army acquisition objective

The quantity of an item of equipment or ammunition required to equip the U.S. Army approved force and to sustain that force, together with specified allies, in wartime from D-Day through the period prescribed and at the support level directed in the latest Office of the Secretary of the Defense Consolidated Guidance (AR 310-25).

Army acquisition workforce

AAW is the personnel component of the acquisition system. The acquisition workforce includes permanent civilian and military members who occupy acquisition positions, are members of the AAC, or are in acquisition development programs.

Army Civilian Training, Education, and Development System (ACTEDS)

The Army-wide training and career management system that develops technical, professional, and leadership knowledge, skills, and ability in civilian members as they progress from entry level to supervisory, managerial, and executive positions.

Army Enterprise Architecture (AEA)

The Army Enterprise Architecture (AEA) is a disciplined, structured, comprehensive, and integrated methodology and framework that encompasses all Army information requirements, technical standards, and systems descriptions, regardless of the information systems' use. The AEA transforms operational visions and associated requirement capabilities of the warfighters into a blueprint for an integrated and interoperable set of information systems that implement horizontal information technology insertion, cutting across the functional "stovepipes" and Service boundaries. Among other uses, this architectural blueprint is the basis for an information technology investment strategy that ensures a consistent and effective design and evolution of the Army's information systems. The AEA is the combined total of all of the Army's operational, technical, and system architectures.

Army Enterprise Strategy

A single unified vision for the Army C4/IT community to strengthen our combat, combat support, and combat service support objectives.

Army transformation

Army transformation combines Objective Forces, modernized and recapitalized legacy forces, and interim forces for full spectrum contingencies to assure the United States land combat dominance. Army transformation seeks to produce a general-purpose Objective Force capable of meeting all these operational demands through an operational and organizational concept that reconciles the unchanging nature of war and the changing conduct of war. The concept recognizes that soldiers and leaders, enabled by technology, remain the foundations of the Army's ability to fight and win wars decisively.

Army Modernization Memorandum (AMM)

A TRADOC product that contains a prioritized list of changes to doctrine, training, leader development, organizations, and materiel as a solution to a mission need. The solutions are required to accomplish future Army missions. Materiel solutions are identified in the Long-Range Army Materiel Requirements Plan annex.

Army Systems Acquisition Review Council (ASARC)

Top level DA review body for ACAT IC, IAC, and II programs. It is chaired by the ASA(ALT) and convened at formal milestone or other program reviews to provide information and develop recommendations for decisions by the AAE.

Battle damage assessment and repair

A wartime procedure to rapidly return disabled equipment to the operational commander by expediently fixing, bypassing, or modifying components to restore the minimum essential components required for performing a specific combat mission or to enable the equipment to self-recover.

Battlefield Development Plan (BDP)

A TRADOC product that provides a prioritized list of needs, based on an analysis of battlefield functions and tasks required to accomplish future Army missions.

Basis-of-Issue (BOI)

BOI is the authority that prescribes the number of items to be issued to an individual, a unit, or a military activity. Basis of issue is stated in authorization documents.

Capability Development Document (CDD)

A document that captures the information necessary to develop a proposed program(s), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable and technically mature capability.

Capability Production Document (CPD)

A document that addresses the production elements specific to a single increment of an acquisition program.

Capstone Requirements Document (CRD)

A document that contains capabilities-based requirements that facilitates the development of CDDs and CPDs by providing a common framework and operational concept to guide their development.

Career field

A career field is one or more occupations that require similar knowledge and skills. There are twelve acquisition career fields: program management; communication - computer systems; contracting; purchasing; industrial property management; business, cost estimating and financial management; auditing; quality assurance; manufacturing and production; acquisition logistics; systems planning, research, development and engineering; test and evaluation engineering.

Career level

A career level is a grouping of education, training, and experience standards that provide the framework for progression within a career field. There are three career levels: (I) entry or basic; (II) intermediate; and (III) senior.

Career program (CP)

Specified occupational series and functional fields grouped together on the basis of population, occupational structure, grade range, and commonality of job and qualification characteristics as designated by AR 690-950.

Certification

A process through which it is determined that an individual meets all education, training and experience standards established for a given acquisition career field or position or for membership in the AAC.

Chief information officer (CIO) assessment

An established matrix of criteria used to evaluate program compliance with statutory and regulatory acquisition requirements.

Clothing and individual equipment (CIE)

CIE is a collective term that includes personal clothing, optional clothing, organizational clothing, and individual equipment items that are not an integral part of the design of the individual soldier as a weapons platform.

Combat developer (CBTDEV)

CBTDEV is the command or agency that formulates warfighting requirements for doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTLMPF). May be used generically to represent the user and user maintainer community role in the materiel acquisition process (counterpart to generic use of MATDEV).

Combined DT/OT testing

Testing that addresses overlapping developmental and operational issues and is jointly planned, executed, analyzed, and reported by developmental and operational testers. The purpose of the combined DT/OT test is to conserve resources and provide a smooth transition from DT to OT testing.

Concurrent engineering

A systematic approach to the integrated current design of products and their related processes, including manufacturing, test, and support. This approach is intended to cause the developers, from the outset, to consider all elements of the product life-cycle from conception through disposal, including quality, cost, schedules, supportability, and user requirements.

Continuous evaluation

A process that provides the continuous flow of information regarding system status to include planning, testing, data compilation, analysis, evaluation, conclusions, and reporting to all members of the acquisition team from the drafting of the initial Mission Need Statement through deployment reviews and assessment. All members of the acquisition team will perform the CE.

Cost (that is, total ownership cost)

Defense systems total ownership cost is defined as life-cycle cost. Life-cycle cost (per DOD 5000.4-M) includes not only acquisition programs direct costs but also the indirect costs attributable to the acquisition program (that is, costs that would not occur if the program did not exist). For example, indirect costs would include the infrastructure that plans, manages, and executes a program over its full life and common support items and systems.

Critical Acquisition Position (CAP)

Those senior acquisition positions carrying significant responsibility primarily involving supervisory or management duties required to be filled by individuals in the grade GS/GM-14 (or NH-IV) or O-5 and above.

Critical Operational Issues and Criteria (COIC)

Those decision-maker key operational concerns with bottom line standards of performance that signify the system is operationally ready to proceed during the production decision review.

Developmental Acquisition Position (DAP)

A position designed and used to provide a period of supervised acquisition experience or training. Such positions may be at any grade level; if a developmental position is a critical acquisition position, then assignment of a person who is not a member of AAC requires a waiver. Specifically excluded from being designated as a developmental acquisition position are the positions of PEO, PM, Deputy PM (positions in which the duties involve managing or supervising acquisition personnel) and other positions that are essential to the acquisition process.

Director, Acquisition Career Management

The official appointed by the AAE to assist him in the performance of duties as they relate to the training, education, and career development of the acquisition workforce.

Domain

For purposes of the Army Enterprise Architecture, a group of systems, or system of systems, of a similar nature or

focused on satisfying similar objectives. Domains are primarily used within the Joint Technical Architecture–Army. There are four domains: command, control, communications, and intelligence; weapon systems; modeling and simulation; and sustainment.

Embedded training (ET)

A functional capability hosted in hardware and/or software, integrated into the overall equipment configuration. ET supports training, assessment, and control of exercises on the operational equipment with auxiliary equipment and data sources as necessary.

Explosive ordnance disposal (EOD)

The detection, identification, field evaluation, rendering-safe, recovery, and final disposal of unexploded explosive ordnance. It may also include the rendering safe or disposal of explosive ordnance that have become hazardous by damage or deterioration when the disposal of such explosive ordnance is beyond the capabilities of personnel normally assigned the responsibility for routine disposal. In this case, this includes applicable weapon systems, all munitions, all similar or related items or components explosive, energetic, or hazardous in nature. This includes explosive ordnance training aids and items, items that could be misidentified as explosive ordnance or bombs, remotely piloted vehicles, and Army aircraft and vehicles.

Facility(s)

Any real property asset (land or building) usually assigned a specific facility category code (FCC) as established jointly by DOD and HQDA.

Family of systems

A set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capabilities. The mix of systems can be tailored to provide desired capabilities, dependent on the situation. An example of a family of systems is a unit of action that included armor, infantry, artillery, and combat support systems.

First Unit Equipped (FUE)

The scheduled date system or end item and its agreed upon support elements are issued to the designated Initial Operational Capability (IOC) unit and training specified in the new equipment training plan has been accomplished.

Foreign ownership, control, or influence (FOCI)

A U.S. company is considered to be under the foreign ownership, control, or influence whenever a foreign interest has the power, direct or indirect, whether or not exercised and whether or not exercisable, through the ownership of the U. S. company's securities by contractual arrangements or other means, to direct or decide matters affecting the operations of that company in a manner that may result in unauthorized access to classified information or unnecessary access to proprietary information, sensitive but unclassified information, and information regarding the operation, management or defense of the Army Enterprise Infostructure (AEI).

Functional area (FA)

A grouping of officers by a career field that possesses an interrelated number of tasks or skills that require specific education, training, and experience.

Functional chief (FC)

An Army leader, normally an Army Staff member, a MACOM commander, or a Secretariat member, who is designated by the ASA(M&RA) to carry out career management responsibilities for assigned career program(s), according to AR 690–950.

Functional proponent

The HQDA agency responsible for the subject area in which the resources are being used (for example, DCS, G–1 for personnel, DCS, G–4 for logistics, or DCS, G–2 for intelligence).

Functional requirement

Administrative requirements, reports, and plans that do not directly prescribe the operational performance of a system but are used to support a program. These fall into two general categories: those that are generated by statute (the FAR, with supplements) and DOD directives and those that are generated by Army regulation, handbooks, pamphlets, or local policy. The second category, those generated by DA and below, may be exempted. The term does not include the operational requirements established by the CBTDEV.

Fuze (fuzing system)

A physical system designed to sense a target or respond to one or more prescribed conditions such as elapsed time,

pressure, or command and initiate a train of fire or detonation in a munition. Safety and arming are primary roles performed by a fuze to preclude ignition of the munition before the desired position or time.

Headquarters, Department of the Army (HQDA)

Term used in this regulation to include the Secretariat and DA Staff activities.

Health hazard assessment (HHA) (AR 40–10)

The Army's formal process used to identify, control, or eliminate health hazards associated with the development and acquisition of new materiel.

Heraldic items

Insignia (including but not limited to branch, grade, unit, and shoulder sleeve insignia), appurtenances, medals and decorations, and other awards required or authorized for uniform wear.

Human Systems Integration (HSI)

A comprehensive management and technical strategy to ensure that human performance (the burden the design imposes on manpower, personnel, and training), and safety and health aspects are considered throughout the system design and development processes. The Army accomplishes the HSI goals through the Manpower and Integration (MANPRINT) program.

Individual equipment

Individual equipment is designed to protect or support the soldier in battlefield situations; for example, load bearing equipment, helmets, skis, and canteens. The essential characteristic of individual equipment is suitability for the function or intended use; appearance is of a lesser priority. Individual equipment is requisitioned, issued, repaired, cleaned, and replaced using OMA funds based on allowances related to the organizational mission and environment.

Information technology (IT)

Any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the executive agency.

Infostructure

The shared computers, ancillary equipment, software, firmware and similar procedures, services, people, business processes, facilities (to include building infrastructure elements), and related resources used in the acquisition, storage, manipulation, protection, management, movement, control, display, switching, interchange, transmission, or reception of data or information in any format including audio, video, imagery, or data, whether supporting Information Technology or National Security Systems as defined in the Clinger-Cohen Act of 1996.

Infrastructure

The term is used with different contextual meanings. It most generally relates to and has a hardware orientation, but it is frequently more comprehensive and includes software and communications. Collectively, the structure must meet the performance requirements of and capacity for data and application requirements. It includes processors, operating systems, service software, and standards profiles that include network diagrams showing communication links with bandwidth, processor locations, and capacities to include hardware builds versus schedule and costs.

Initial capabilities document (ICD)

Documents the need for a materiel approach to a specific capability gap derived from an initial analysis of materiel approaches executed by the operational user and, as required, an independent analysis of materiel alternatives. It defines the capability gap in terms of the functional area, the relevant range of military operations, desired effects and time. The ICD summarizes the results of the DOTMLPF analysis and describes why nonmateriel changes alone have been judged inadequate in fully providing the capability.

Initial operational capability (IOC)

As defined within the capability development and production documents, it is the first attainment of the capability (as declared by the IOC organization) by an MTOE unit and supporting elements to operate and effectively maintain a production item or system provided—

- a. The item or system has been Type Classified - Standard or approved for limited production.
- b. The unit and support personnel have been trained to operate and maintain the item or system in an operational environment.
- c. The unit can be supported in an operational environmental in such areas as special tools, test equipment, repair parts, documentation, and training devices.

Note. This designation is usually applied at a point in the Defense Acquisition Model that is after the full-rate production decision review and implies that the unit is combat ready.

Installation

An aggregation of contiguous or near contiguous, common, mission-supporting real property holdings under the jurisdiction of the Department of Defense or a State, the District of Columbia, Territory, Commonwealth, or possession, controlled by and at which an Army unit or activity is permanently assigned.

Integrated Concept Team (ICT)

An integrated team made up of people from multiple disciplines formed for the purposes of developing operational concepts, developing materiel requirements documents, developing other DTLOMS requirements documents, when desired, and resolving other requirements determination issues.

Integrated Logistics Support (AR 700–127)

A unified and iterative approach to the management and technical activities to—

- a. Influence operational and materiel requirements, system specifications, and the ultimate design or selection (in the case of NDI/COTS).
- b. Define the support requirements best related to system design and to each other.
- c. Develop and acquire the required support.
- d. Provide required operational phase support for best value.
- e. Seek readiness and cost improvements in the materiel system and support systems throughout the operational life cycle.

Integrated Product/Process Team (IPT)

A working level team of representatives from all appropriate functional disciplines working together to build successful and balanced programs, identify and resolve issues, and provide recommendations to facilitate sound and timely decisions.

Interoperability

The ability of the systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces and to use data, information, materiel, and services so exchanged to enable them to operate effectively together.

In-Process review (IPR)

Review body for ACAT III programs. Convened at each formal milestone and at other critical points to evaluate status and make recommendations to the MDA.

Intra-Army interoperability certification

Confirmation that the candidate system has undergone appropriate testing and that the applicable standards and requirements for compatibility, interoperability, and integration have been met.

Joint Technical Architecture–Army

A compilation of the standards, protocols, and technical specifications that enable Army systems to efficiently exchange information with other systems and take advantage of common system components.

Life-cycle management (LCM)

A management process, applied throughout the life of a system, that bases all programmatic decisions on the anticipated mission-related and economic benefits derived over the life of the system.

Low rate initial production (LRIP)

1. The first effort of the Production and Deployment (P&D) phase. The purpose of this effort is to establish an initial production base for the system, permit an orderly ramp-up sufficient to lead to a smooth transition to full rate production (FRP), and to provide production representative articles for Initial Operational Test and Evaluation (IOT&E) and full-up live fire testing. This effort concludes with a Full Rate Production Decision Review (FRPDR) to authorize Full Rate Production and Deployment (FRP&D).
2. The minimum number of systems (other than ships and satellites) to provide production representative articles for Operational Test and Evaluation (OT&E), to establish an initial production base and to permit an orderly increase in the production rate sufficient to lead to full rate production (FRP) upon successful completion of operational testing (OT). For major defense acquisition programs (MDAPs), LRIP quantities in excess of 10 percent of the acquisition

objective must be reported in the Selected Acquisition Report (SAR). For ships and satellites, LRIP is the minimum quantity and rate that preserve mobilization.

Manpower and Personnel Integration (MANPRINT)

The process of integrating all relevant information and considerations regarding the full range of manpower, personnel, training, human factors engineering, system safety, health hazards, and soldier survivability into the system design, development and acquisition process to optimize total system performance and minimize ownership costs over the life of the program.

Materiel developer (MATDEV)

The RDA command, agency, or office assigned responsibility for the system under development or being acquired. The term may be used generically to refer to the RDA community in the materiel acquisition process (counterpart to the generic use of CBTDEV).

Matrix support

All categories of functional support provided to the materiel developer (MATDEV) necessary to execute/attain the acquisition objective, excluding the core office (TDA) capability.

Milestone Decision Authority

The person in whom is vested the authority to make milestone decisions. This may be the Defense Acquisition Executive, the Component Acquisition Executive (for the Army, this is the Army Acquisition Executive), or the Program Executive Officer.

Mission Critical Information System

A system that meets the definitions of “information system” and “national security system” in the Clinger-Cohen Act, the loss of which would cause the stoppage of warfighter operations or direct mission support of warfighter operations.

Mission Essential Information System

A system that meets the definitions of “information system” and “national security system” in the Clinger-Cohen Act and that the acquiring component head or designee determines is basic and necessary for the accomplishment of the organizational mission.

Note. The definition of “the organizational mission” is one of the organizational missions of the Army, not just a single MACOM or DA functional proponent.

Modeling and simulation (M&S)

The development and use of live, virtual, and constructive models including simulators, stimulators, emulators, and prototypes to investigate, understand, or provide experiential stimulus to either (1) conceptual systems that do not exist or (2) real life systems that cannot accept experimentation or observation because of resource, range, security, or safety limitations. This investigation and understanding in a synthetic environment will support decisions in the domains of research, development, and acquisition (RDA) and in advanced concepts and requirements (ACR) or will transfer necessary experiential effects in the training, exercises, and military operations (TEMO) domain.

Mission critical computer resources (MCCR)

Elements of computer hardware, software, or services whose function, operation, or use involves intelligence activities or crypto logical activities related to national security, command and control of military forces; or equipment that is an integral part of a weapon or weapon system.

Mission critical system

A system whose operational effectiveness and operational suitability are essential to the successful completion/outcome of the current or subsequent combat action. A system used by soldiers on the battlefield to perform their primary or secondary functions. Loss of the system could result in an unfavorable outcome of the combat action. Army Unit Status Reporting identifies the system with equipment readiness code P or A in the requirements document of one or more type units.

Non-Government standard

A national or international standardization document (standard, specification, or hand book) developed, established, or coordinated by a private sector association, organization, or technical society. This term does not include standards of individual companies. Non-Government Standards adopted by the DOD are listed in the ASSIST database (DOD 4120.24-M).

Operational architecture (OA)

A description (often graphic) of the operational elements, assigned tasks, and information flows required to accomplish or support a warfighting function. It defines the type of information, the frequency of exchange, and the tasks supported by the information exchanges.

Operational- through tactical-level

C4I Information systems designed to support from Army Forces headquarters down to the squad level.

Optional clothing

Clothing that is authorized for wear by the individual but is not a part of the initial or supplemental clothing issue. Optional clothing is not centrally procured but may be obtained through AAFES or authorized commercial sources. Examples include the black “wooley-pully” sweater and black windbreaker.

Organizational uniforms, clothing, and equipment

The uniforms, clothing and equipment listed in the common tables of allowances (CTA), which are issued to an individual on a loan basis and remain the property of the organization. Commanders issue organizational clothing and equipment in accordance with the allowances and directives published in the appropriate CTA. When issued, organizational clothing is worn when prescribed by the commander in accordance with Army regulations, technical manuals, and the CTA. Examples of organizational uniforms are the maternity work uniform, desert BDU, hospital duty and food service uniforms, and cold-weather clothing.

Overarching Integrated Process/Product Team (OIPT)

The Overarching Integrated Process/Product Team (OIPT) is a team appointed by the MDA, commensurate with the ACAT level, to provide assistance, oversight, and independent review for the MDA, as the program proceeds through its acquisition cycle.

Personal clothing

Military-type clothing, clothing of a personal nature, and component items listed in CTA 50–900, table I, that are provided to enlisted personnel (specifically, the initial clothing bag issue).

Post-Production software support (PPSS)

PPSS is the sum of all activities required to ensure that the implemented and fielded software system continues to support its original operational mission and subsequent mission modifications once production of the system is completed or when transitioned to functional management.

Program/Project/Product manager

A HQDA command select list (CSL) manager for a system or program. A PM may be subordinate to the AAE or a PEO. Refers to the management level of intensity the Army assigns to a particular weapon system or information system. As a general rule, a Program Manager is a General Officer or SES; a Project Manager is a Colonel or GS–15 (or equivalent); a Product Manager is a Lieutenant Colonel or GS–14 (or equivalent).

Program Protection Plan (PPP)

The program protection plan (PPP) is a DOD-mandated document required for acquisition programs. Development of PPP is the responsibility of the PM, in concert with the appropriate international cooperative program offices and foreign disclosure/security offices.

Recapitalization

The rebuild and selected upgrade of currently fielded systems to ensure operational readiness and a near zero time, near zero mile system. Rebuild restores a system to like new condition in appearance, performance, and life expectancy.

Re-procurement

Re-procurement of an item is authorized when there is a continuing need based on an updated performance specification or purchase description from the last procurement. Re-procurement should not require any research, development, test, and evaluation (RDTE) funds other than 6.5 RDTE funding for market surveys and associated testing.

Research, Development, and Acquisition Plan

The Research, Development, and Acquisition Plan (RDAP) is the HQDA long-range plan to develop and produce technology and equipment to continue the Army’s modernization program. It is the starting point for the POM process.

Reusability of software modules

The extent to which a program unit that is discrete and identifiable with respect to compiling, combining with other

units, and loading and can be used as source code in multiple applications, for example, a message parsing module, mathematical equation module.

Reusable software asset

A software element, including requirements, designs, objects, code, test data, capable of being used by a software development effort other than the one for which it was originally developed. A synonym for reusable software component.

Reuse

The application of reusable software assets, with or without adaptation to more than one software system. Reuse may occur within a software system, across similar software systems, or in widely different software systems.

Robust design

A design that is optimized to be reliable through an insensitivity to any manufacturing or any in-use environmental variability.

Safety confirmation

A formal document that provides the materiel developer and the decision maker with the test agency's safety findings and conclusions and that states whether the specified safety requirements have been met. It includes a risk assessment for hazards not adequately controlled, lists technical or operational limitations, and highlights safety problems requiring further testing.

Safety release

A formal document issued to any user to test organization before any hands-on testing, training, use, or maintenance by soldiers. The safety release is a stand-alone document that indicates the system is safe for use and maintenance by soldiers and describes the specific hazards of the system based on test results, inspections, and system safety analysis. Operational limits, precautions, and proposed means of mitigating risks are included.

Software

A set of computer programs, procedures, data, and associated documentation concerned with the operation of a data processing system (for example, compiler, library routines, manuals, circuit diagrams); usually contrasted with hardware.

Software blocking (SWB)

SWB refers to the evolutionary preparation and development process and activities conducted to ensure the acquisition of an interoperable software baseline designed to satisfy an incremental set of integrated system-of-systems block requirements.

Software Support Activity

An organization assigned the responsibility for post-production software support.

Special tools

A special tool is a tool designed to perform a specific task for use on a specific end item or a specific component of an end item and is not available in the common tool load that supports that end item/unit. It is authorized by the repair parts and special tool list (RPSTL) located within that end item's technical manual (TM).

System-of-systems

A set or arrangement of interdependent systems that are related or connected to provide a given capability. The loss of any part of the system will degrade the performance or capabilities of the whole. An example of an SoS could be interdependent information systems. While individual systems within the SoS may be developed to satisfy the peculiar needs of a given user group, the information they share is so important that the loss of a single system may deprive other systems of the data needed to achieve even minimal capabilities.

Systems architecture (SA)

A systems architecture is a description, including graphics, of the systems and interconnections providing for or supporting a warfighting function. The SA defines the physical connection, location, and identification of the key nodes, circuits, networks, and warfighting platforms and allocates system and component performance parameters. It is constructed to satisfy operational architecture requirements in the standards defined in the technical architecture. The SA shows how multiple systems within a domain or an operational scenario link and interoperate and may describe the internal construction or operations of particular systems in the SA.

Technical architecture (TA)

A technical architecture is the minimal set of rules governing the arrangement, interaction, and interdependence of the parts or elements whose purpose is to ensure that a conformant system satisfies a specified set of requirements. The technical architecture identifies the services, interfaces, standards, and their relationships. It provides the technical guidelines for implementation of systems upon which engineering specifications are based, common building blocks are built, and product lines are developed.

Technology Assessment/Control Plan (TA/CP)

The TA/CP is another DOD-mandated technology protection document that identifies and describes sensitive program information, the risks involved in foreign access to the information, the impact of international transfer of the resulting system, and the development of measures to protect the U.S. technological or operational advantage represented by the system. It is required for all major defense acquisition programs and international agreements (except international cooperative R&D agreements), particularly when the disclosure of CMI is envisioned.

Test, measurement, and diagnostic equipment (TMDE)

Any system or device used to evaluate the operational condition of an end item or subsystem thereof or used to identify or isolate any actual or potential malfunction. The TMDE includes diagnostic and prognostic equipment, semi-automatic and automatic test equipment (with issued software), and calibration test and measurement equipment.

Total life cycle competition strategy

Describes the technical and contracting methods for maximizing effective competition, with an objective of full and open competition, throughout the system's life cycle. Addresses entire system to include end item(s), components, and spare parts in light of breakout, spares acquisition integrated with production, support services and other software, and acquisition of technical data and data rights.

Training aids, devices, simulators and simulations (TADSS).

A general term that addresses equipment and associated hardware and software developed, fabricated, or procured specifically for improving the training/learning process. Justified, developed, and acquired to support training of designated tasks. TADSS are categorized as system (supported by the PEO/PM) or non-system (supported by the Training Peg).

a. System devices are designed for use with a specific system, family of systems or item of equipment, including subassemblies and components. System TADSS may be designed/configured to support individual, crew, collective, and/or combined armed training tasks. System TADSS may be stand-alone, embedded, or appended.

b. Non-system TADSS are designed to support general military training and non-system specific training requirements.

Transportability

The inherent capability of materiel to be moved by towing, by self-propulsion, or by carrier via railways, highways, waterways, pipelines, oceans, and airways utilizing existing equipment or equipment that is planned for the movement of the item being considered.

Section III**Special Abbreviations and Terms**

This publication uses the following special abbreviations, brevity codes, and acronyms not contained in AR 310–50.

AAC

Army Acquisition Corps

AAE

Army Acquisition Executive

AAMS

Army Acquisition Management System

AAW

Army acquisition workforce

ACAT

acquisition category

ACDP

Acquisition Career Development Plan

ACE

Acquisition Career Experience

ACMA

Acquisition Career Management Advocate

ACP

Army Cost Position

ACPB

Acquisition Career Program Board

ACRB

Acquisition Career Record Brief

ACSA

acquisition cross-servicing agreement

ACTD

Advanced Concept Technology Demonstration

ACTEDS

Army Civilian Training, Education, and Development System

ADM

Acquisition Decision Memorandum

ADMSP

Army Data Management and Standards Program

AEA

Army Enterprise Architecture

AECP

Army Experimentation Campaign Plan

AEI

Army Enterprise Infostructure

AETE

Acquisition Education, Training, and Experience

AFARS

Army Federal Acquisition Regulation Supplement

AIS

Automated Information System

AFIS

Armed Forces Information Service

AIT

automated identification technology

AITR

Army IT Registry

AKEA

Army Knowledge Enterprise Architecture

AKSS

AT&L Knowledge Sharing System

AL&TWF

(Army) Acquisition, Logistics, and Technology Workforce

AMCSS

Army Military Clothing Sale Stores

AMHA

Army Management Headquarters Account

AMM

Army Modernization Memorandum

AMS

Army Modernization A Schedule

AOA

Analysis of Alternatives

APA

Army procurement appropriation

APB

Acquisition Program Baseline

APC

Acquisition Position Category

APESO

Army Product Engineering Services Office

APTU

Army Participating Test Unit

ARACMIS

Army Reserve Acquisition Corps Management Information System

AROC

Army Requirements Oversight Council

AS

Acquisition Strategy

ASA(ALT)/OASA(ALT)

Assistant Secretary of the Army (Acquisition, Logistics and Technology)/Office of the ASA(ALT)

ASA(CW)

Assistant Secretary of the Army for Civil Works

ASA(FM&C)

Assistant Secretary of the Army (Financial Management and Comptroller)

ASA(I&E)

Assistant Secretary of the Army (Installation and Environment)

ASC

Acquisition Support Center

ASE

Army Standardization Executive

ASIOE

associated support items of equipment

ASP

Army Standardization Program

ATAP

Acquisition Tuition Assistance Program

ATD

Advanced Technology Demonstration

ATEC

U.S. Army Test and Evaluation Command

ATSP

Army Threat Simulator Program

ATTRS

Army Training Requirements and Resource System

AUB

Army Uniform Board

AWARE

Acquisition Workbook Analysis & Readiness Evaluation

AWCF

Army Working Capital Fund

AWE

Army Warfighting Experiments

BCA

business case analysis

BES

Budget Estimate Submission

BOIPFD

Basis of Issue Plan Feeder Data

BPR

business process reengineering

CADD

computer-aided design and drafting

CAIV

Cost as an Independent Variable

CAMB

Civilian Acquisition Management Branch

CAP

Critical Acquisition Position

CAPPMIS

Career Acquisition Personnel Position Management Information System

CARD

Cost Analysis Requirements Document

CBTDEV

Combat Developer

CCA

Component Cost Analysis; Clinger Cohen Act

CDD

capabilities development document

CDG

Competitive Development Group

CE

Corps eligible

CEAC

Cost and Economic Analysis Center

CEP

Concept Experimentation Program

CFF

Central Funding and Fielding

C4I

command, control, communications, computers, and intelligence

C4I/IT

C4 and intelligence/information technology

C4ISP

Command, Control, Communications, Computers, and Intelligence Support Plan

C4ISR

command, control, communications, computers, intelligence, surveillance, and reconnaissance

C4/IT

command, control, communications, computers, intelligence/information technology

CIE

Clothing and Individual Equipment

CIO

Chief Information Officer

CJCSI

Chairman, Joint Chiefs of Staff instruction

CLP

continuous learning points

COIC

critical operational issues and criteria

CON

contingency

COOP

continuation of operations

COSIS

Care of Supplies in Storage

COTS

Commercial Off-the-shelf Software

CPD

capabilities production document

CPI

critical program information

CRB

Cost Review Board

CRD

Capstone Requirements Document

CRLCMP

Computer Resource Life Cycle Management Plan

CS

contractor support

CSA/OCSA

Chief of Staff, U.S. Army/Office of the CSA

CSL

command select list

CTC

Combat Training Center

CTP

coordinated test program

CTR

continuous technology refreshment

CTSF

Central Technical Support Facility

DAB

Defense Acquisition Board

DAE

Defense Acquisition Executive

DASA-CE

Deputy Assistant Secretary of the Army for Cost and Economics

DASAF

Director of Army Safety

DAU

Defense Acquisition University

DAWIA

Defense Acquisition Workforce Improvement Act

DCC-W

Defense Contracting Command – Washington

DII

Defense Information Infrastructure

DMSMS

diminishing manufacturing sources and material shortages

DODIG

Department of Defense Inspector General

DOTE

Director, Operational Test and Evaluation

DOTLMPF

Doctrine, organizations, training, leadership and education, materiel, personnel, and facilities

DPA&E

Director, Program Analysis and Evaluation

DPM

deputy PM

DSP

Defense Standardization Program

DT

developmental test

DTLOMS

doctrine, training, leader development, organizations, materiel, and soldiers

DUSA(OR)

Deputy Under Secretary of the Army (Operations Research)

DUSD(S&T)

Deputy Under Secretary of Defense for Science and Technology

DWCF

Defense Working Capital Fund

DWU

Duty White Uniforms

EA

economic analysis

ELCC

Environmental Life-cycle Cost

EQIA

Environmental Quality Impact Analyses

ESO

Environmental Support Office

ESOH

environment, safety, and occupational health

E3

electromagnetic environmental effects

FCR

functional chief representative

4GL

fourth generation languages

FOCI

foreign ownership, control, or influence

FRP

full rate production

FUE

First Unit Equipped

FYDP

Future Years Defense Program

GOSC

General Officer Steering Committee

GOTS

Government off-the-shelf software

HAZMAT

hazardous material

HELSFT

High Energy Laser System Test Facility

HHA

health hazard assessment

HQDA

Headquarters, Department of the Army

HRC

Human Resources Command

HSI

Human Systems Integration

HTI

horizontal technology integration

ICD

initial capabilities document

ICT

Integrated Concept Team

IDE

integrated digital environment

IDIV

Interim Division

IEPR

independent expert program review

IIPT

Integrating Integrated Product Team

ILSM

Integrated Logistics Support Manager

IM

information management

IMA

individual mobilization augmentee

IMB

Insensitive Munitions Board

IMIT

Information Management and Information Technology

IMMC

Integrated Materiel Management Center

INFOSEC

information security

IPPD

integrated product and process development

IPT

Integrated Product Team

ISA

international standardization agreements

ISEW

intelligence, security and electronic warfare

ISR

intelligence, surveillance, and reconnaissance

IT

information technology

ITTS

instrumentation, targets, and threat simulators

JROC

Joint Requirements Oversight Council

JSIG

Joint Service Integration Group

JSMG

Joint Service Materiel Group

JTCG–ME

Joint Technical Coordinating Group for Munitions Effectiveness

JTIC

Joint Interoperability Test Command

LFT&E

live-fire test and evaluation

LP

limited procurement

LRIP

low-rate initial production

LRU

line replacement unit

MAIS

major automated information system

MANPRINT

Manpower and Personnel Integration

MARC

Manpower Requirements Criteria

M&S

modeling and simulation

MATDEV

materiel developer

MC

mission critical

MCCR

mission critical computer resources

MDA

Milestone Decision Authority

MDAP

major defense acquisition programs

MDR

Milestone Decision Review

ME

mission essential

MECI

mission essential contingency item

MEDCOM

Medical Command

MIPS

Modified Integrated Program Summary

MRTFB

major range and test facilities bases

MSR

materiel status record

MSRR

Model and Simulation Resources Repository

NDI

nondevelopmental item

NEPA

National Environmental Protection Act

NETCOM

U.S. Army Network Enterprise Technology Command

NGS

non-Government standard

NMS

National Military Strategy

NSS

national security systems

NTIB

national technology and industrial base

OACSIM

Office of the Assistant Chief of Staff for Installation Management

O&S

Operation and Support

OCIE

organizational clothing and individual equipment

OIPT

Overarching Integrated Product Team

OMS/MP

operational mode summary/mission profile

OPTEMPO

operational tempo

ORD

operational requirements document

OSCR

Operation Support Cost Reduction

OTRS

operational test readiness statements

PA

Procurement, Army

PBA

performance based agreement

PBL

performance based logistics

PDD

product definition data

PDSS

post deployment software support

PEO

program executive officer

PESHE

programmatic environment, safety and occupational health evaluation

POE

program office estimate

PPBES

Planning, Programming, Budgeting, and Execution System

PDSS

post-deployment software support

PPBS

Planning, Programming, and Budgeting System

PPP

Program Protection Plan

PPSS

post-production software support

PRR

production readiness review

PSCOE

Power Sources Center of Excellence

PSI

product support integrator

R&M

reliability and maintainability

RDA

research, development, and acquisition

RDAP

Research, Development, and Acquisition Plan

RPB

Recapitalization Program Baseline

RSTA

reconnaissance, surveillance, and target acquisition

RTS

Ronald Reagan Ballistic Missile Defense Test Site

S&A

safety and arming

SADBU

Small and Disadvantaged Business Utilization

SAP

Special Access Program

SCE

software capability evaluation

SCN

statement of continuing need

SDD

system design and development

SDO

Supply Depot Operations

SDT

Second Destination Transportation

SEC

Software Engineering Center

SEI

Software Engineering Institute

SER

system evaluation report

SES

Senior Executive Service

SHDS

Safety and Health Data Sheet

SIPT

Supportability Integrated Product Team

SMA

Supply Maintenance, Army

SOF

Special Operations Forces

SOR

source of repair

SoS

system-of-systems

SOSM

system-of-systems manager

SPC

statistical process control

SPI

software process improvement

SRA

system risk assessment

SRPE

senior rater potential evaluation

SSA

Software Support Activity

SSMP

System Safety Management Plan

SSP

Simulation Support Plan

SSRA

System Safety Risk Assessment

SSTS

Sustainment System Technical Support

STD

standard

STRAP

System Training Plan

SWB

software blocking

T&E

test and evaluation

TADSS

training aids, devices, simulators and simulations

TAPES

Total Army Personnel Evaluation System

TAV

total asset visibility

TC

type classification

TCP

Transformation Campaign Plan

TEMA

Test and Evaluation Management Agency

TEMP

Test and Evaluation Master Plan

3GL

third generation languages

TLCSM

total life cycle systems management

TNGDEV

training developer

TPF

Total package fielding

USAKA

U.S. Army Kwajalein Atoll

USANCA

U.S. Army Nuclear and Chemical Agency

USASMDC

U.S. Army Space and Missile Defense Command

USATEC

United States Army Test and Evaluation Command

USD(A&T)

Under Secretary of Defense for Acquisition and Technology

USF

unit set fielding

USSTRATCOM

U.S. Strategic Command

VAMOSC

DOD Visibility and Management of Operating and Support Cost Program

WIPT

Working Level Integrated Product Team

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OneCol FORMATTER WIN32 Version 213

PIN: 004423-000

DATE: 12-23-03

TIME: 15:30:23

PAGES SET: 104

DATA FILE: C:\wincomp\r70-1.fil

DOCUMENT: AR 70-1

SECURITY: UNCLASSIFIED

DOC STATUS: REVISION