Order of Contents

Adaptive Acquisition Framework Rollout Synopsis
DoD 5000 Series Acquisition Policy Re-Write
Acquisition Policy Transformation
Adaptive Acquisition Framework (AAF)
Pathway Information Sheets:
- Urgent Capability
- Middle Tier
- Major Capability
- Software
- Defense Business Systems
- Acquisition of Services

Functional Area Enclosures:
- Acquisition Intelligence
- Cyber Security
- Intellectual Property (IP) Policy
- Mission Engineering
- Systems Engineering
- Test & Evaluation

“MULTIPLE PATHWAYS FOR TAILORED SOLUTIONS”
HTTPS://WWW.DAU.EDU/AAF/
Adaptive Acquisition Framework
Rollout Synopsis

The Adaptive Acquisition Framework (AAF) is the Department’s transformational tool that improves the ability to deliver warfighting capability at the speed of relevance. OUSD(A&S) is changing the acquisition culture by simplifying policy, empowering program managers (PMs), tailoring acquisition approaches, conducting data driven analysis, actively managing risk, and emphasizing sustainment.

No longer will program teams be limited in achieving warfighting objectives under a traditional ‘one-size-fits-all’, check-list methodology model, but instead, will utilize a series of six pathways, each designed for the unique characteristics of the capability being acquired. This revised method supports the Defense Acquisition System with the objective of delivering effective, supportable, and affordable solutions in a timely manner.

On September 25, 2019, OUSD(A&S) hosted an AAF training event for over 150 acquisition professionals and senior leaders from across the Department to discuss the redesigned DoD 5000 Series on Acquisition Policy ahead of formal staffing and signature. Attendees submitted survey responses after the event, providing feedback that reflected support for this new direction and the revised acquisition policy. Below is a summarized compilation of key takeaways from Acquisition Workforce members across each Service.

Program Managers are eager to:

- Accomplish mission objectives using a new framework that allows for autonomy, flexibility, critical thinking, risk management, and creativity in their decision-making processes. Attendees noted how seeing the Integrated Visual Augmentation System (IVAS) acquisition process was helpful in their understanding of overall AAF effectiveness.

- Network and collaborate with other acquisition leaders internally and across the Services to share ideas, experiences, case studies, and lessons learned. Attendees benefited from open discussion.

- Incorporate past experiences, new ideas, and creative problem solving to translate concepts into novel applications.

- Address urgent cyber security threats and respond to warfighter urgent needs with a system that allows for fast action.

- Employ processes that keep up with technological advancements.

- Apply commercial innovation to government processes to keep up with industry technology.

- Engage non-traditional industry partners.

- Integrate testing, training, and sustainment requirements early-on in the program lifecycle.

“MULTIPLE PATHWAYS FOR TAILORED SOLUTIONS”
HTTPS://WWW.DAU.EDU/AAF/
The Department needs your help to champion the revised DoD policy:

As champions of the new AAF effort, your support is vital. For successful implementation of the revised DoD 5000 Policy, the Department needs your help to:

- Actively embrace and promote this culture change from a “tailored-out” to a “tailored-in” philosophy; encourage PMs to think critically and embrace tailoring program oversight to minimize unnecessary bureaucratic processes.
- Support intra and cross-service communication and learning opportunities through working groups, collaborative events, and discussions for shared experiences, best practices, lessons learned, etc.
- Encourage the acquisition workforce to participate in events at which they can interact and network with OSD, Service Leadership, and PEO/PM counterparts.
- Recognize and communicate emerging shortcomings, challenges, and successes internally, across the services, and to OUSD(A&S). Share these as powerful examples across the acquisition workforce.
The DoD 5000 Series Acquisition Policy Re-write is enabling innovative acquisition approaches that deliver warfighting capability at the speed of relevance by:

Simplifying Acquisition Policy
- DoD is transitioning from a ‘one-size fits all’ model and check-list methodology to a flexible, streamlined Adaptive Acquisition Framework (AAF) with 6 tailorable acquisition pathways designed for the unique characteristics of the capability being acquired
- Policy encourages program teams to use appropriate pathway, or combination of pathways, to accelerate the delivery of program objectives
- Policy re-write includes DoDIs for each acquisition pathway and each functional area

Tailoring Acquisition Approaches
- AAF holds Program Managers (PMs) accountable for critical thinking and embraces tailoring in program oversight to minimize unnecessary bureaucratic processes
- PMs will identify and propose recommendations for decision authority approval
- Streamlined and simplified approvals allow stakeholders to focus attention on specific program needs without sacrificing rigor and discipline

Empowering Program Managers
- Policy empowers program managers and program teams to think critically, leverage data, use innovative strategies, tailor-in decision making, and actively manage risk
- DoD will showcase those who leverage innovative strategies to meet a unique requirement

Conducting Data Driven Analysis
- Section 913 of the 2018 National Defense Authorization Act requires DoD to use data analytics to improve acquisition outcomes
- Promotes collaboration with the Services, as well as agencies internal and external to DoD, to implement modern tools and data analytics for improvement of programmatic decision making

Actively Managing Risk
- Policy enables and encourages program managers to take and actively manage risk
- Oversight continues to ensure taxpayers’ dollars are effectively spent, but will be tailored based on the risk profile and capability being developed

Emphasizing Sustainment
- Policy encourages the consideration of a sustainment strategy throughout the entire program lifecycle
- Policy involves end users early in program development to capture sustainment requirements up front
Comprehensive policy approach includes the following:

Updating the traditional Major Capability Acquisition pathway to provide flexibility and efficiency
- Decision authorities and program managers may structure program strategies and phase requirements based on the characteristics of the program being acquired
- Program managers will identify or “tailor in” the information needed to manage their program
- Acquisition decisions will be made at the lowest competent level commensurate with risk
- Emphasis will be placed on Product Support and Sustainment planning to improve readiness and affordability

Implementing a software policy to drive modern software development across DoD programs
- Ultimate goal is to rapidly field more relevant capabilities and deliver software that meets the user’s highest priority needs.
- New policy allows for upgradeable and timely fielding versus “static” software
- Integrating software early in the lifecycle allows for user input and continuous development and innovation
- Program teams and industry partners can engage with users to create, modify, or upgrade software to keep up with evolving threats, operational environments, and technology
- Ensuring cybersecurity is built into programs from the beginning

Implementing the Middle Tier of Acquisition Policy to prototype/field mature technology in an operational environment within 5 years (DoD currently has 50 active mid-tier programs)

Establishing an Intellectual Property (IP) Cadre to facilitate the development of a competent and consistent approach across the Department for IP acquisition, licensing, and management; the IP Cadre will:
- Provide timely, expert assistance, and resources on DoD Components on IP matters at various stages of the program lifecycle
- Outreach and liaison with industry, other Federal agencies, and Congress

Engaging with key stakeholders from programs across the Services and DoD components to ensure acquisition policies are enablers, not hindrances
- Pilot programs are underway; DoD is incorporating lessons learned into policy updates

Creating training tools and classes to educate the workforce on AAF functionality
- Defense Acquisition University (DAU) developed specialized AAF training and rolled out a new credential program in October, 2019 – The current learning construct is changing from schedule-driven, classroom-centric lessons at DAU facilities to customer-requested, scalable, on-site workshops
- Training the workforce to develop skills such as: critical thinking, modern software development, and critical cyber skills to support the Department’s current and future needs
- DAU will offer pilots focusing on digital engineering, agile methods, and acquisition of services
- Incorporating creative training models: TEDx talks, website tools, powerful examples, etc.
Revised DoDI 5000.02 will include an Adaptive Acquisition Framework (AAF) with 6 tailorable acquisition pathways and DoDIs for each functional area.

**DOD 5000.01: The Defense Acquisition System**
Updated to specify the overarching policy and the responsibilities of key officials.

**DODI 5000.02: Operation of the Adaptive Acquisition Framework**
Outlines the six pathways of the Adaptive Acquisition Framework.

**DODIs for Each Acquisition Pathway**
- Major Capability Acquisition
- Software Acquisition* (Interim)
- Urgent Capability Acquisition
- Defense Business Systems
- Middle Tier of Acquisition
- Defense Acquisition of Services

**DODIs for Each Functional Area**
- Engineering
- T&E
- Cybersecurity
- AoAs
- Cost Est
- IP
- Program Protection
- HSI
- Acquisition Intelligence
- IT

*Published by various OSD functional organizations*
Tailor, combine, and transition between pathways to create your program strategy.

The following pathways describe multiple acquisition approaches that provide capability to the user while capitalizing on advanced acquisition methods and improving DoD's ability to benefit from commercial innovation.
Pathway Information Sheets
Purpose
To field capabilities to fulfill urgent operational needs (UONs) or other quick reaction capabilities (QRCs) in less than 2 years.

Characteristics
The Department’s highest priority is to provide warfighters involved in conflict, or preparing for imminent contingency operations, with the capabilities urgently needed to overcome unforeseen threats, achieve mission success, and reduce risk of casualties. UONs and other QRCs are identified and approved for resolution by designated authorities. The estimated cost must not exceed $525 million in research, development, and test and evaluation, or $3.065 billion for procurements in Fiscal Year 2020 constant dollars. Due to operational urgency the normal acquisition processes are aggressively streamlined. The goal is to plan for the capability in a few weeks with development and production measured in months. The imperative is to quickly deliver useful capability to the warfighter in a timely manner.

- The purpose of Pre-Development is to assess and select a course or courses of action to field a quick reaction capability and develop an acquisition approach.

- Development includes an assessment of the performance, safety, suitability, survivability, supportability, including software, and lethality, if appropriate, of the capability. It does not require that all identified deficiencies, including those related to safety, be resolved prior to production or deployment. The Milestone Decision Authority will, in consultation with the user and the requirements validation authority, determine which deficiencies must be resolved and what risks can be accepted.

- During Production and Deployment, the acquiring organization provides the warfighter with the needed capability, to include any required training, spares, technical data, to include known hazards and accepted mishap risks, computer software, temporary or permanent facilities or infrastructure, support equipment, maintenance, or other logistics support necessary for operation.

- Operations and Support: The program manager executes a supportability strategy that meets materiel readiness and operational support performance requirements, is safe, and sustains the capability in the most cost-effective manner over its anticipated total life cycle. Planning for Operations and Support, including support funding, will begin during pre-development and will be documented in the acquisition strategy.
Purpose
To rapidly develop fieldable prototypes to demonstrate new capabilities and/or rapidly field production quantities of systems with proven technologies that require minimal development. The objective of an acquisition program under this path shall be to field a prototype that can be demonstrated in an operational environment and provide for a residual operational capability within five years of the program start date.

Characteristics
The MTA pathway includes Rapid Prototyping and Rapid Fielding activities. The objective of Rapid Fielding is to begin production within 6 months and complete fielding less than or equal to 5 years of the program start date. Programs that are subject to the guidance in DoDI 5000.UC will not be subject to the Joint Capabilities Integration and Development System Manual and DoDD 5000.01, except to the extent specifically provided in the guidance.

- Rapid processes, including those that consider life-cycle costs, issues of product support, logistics support and training, interoperability, and reducing total ownership costs, will be tailored for prototyping and fielding.
- Enables acquisition innovation by encouraging creative compliance through the use of the simplest, most effective acquisition authority and contract type possible.
- Shorter timeframes and schedules allow teams to focus on critical technologies and efforts early in the acquisition process.
**Purpose**

To acquire and modernize military unique programs that provide enduring capability. This pathway is intended for large scale, traditional hardware acquisitions. Major Defense Acquisition Programs (MDAPs) will use this pathway, and programs in other pathways may transition to Major Capability Acquisitions at the appropriate milestone decision point.

**Characteristics**

Major capabilities acquisitions typically follow a structured analysis, design, develop, integrate, test, and produce and support approach. Acquisition and product support processes, reviews, and documentation will be tailored based on the program size, complexity, risk, urgency, and other factors. Software intensive components may be acquired via the software acquisition pathway, with the outputs and dependencies integrated with the overall major capability pathway.

- **Materiel Development Decision (MDD):** The MDD is the formal entry point into the major capability acquisition pathway and is informed by a validated requirements document that identifies a capability gap and determines that a materiel solution is needed.

- **Milestone (MS) A:** Decision point to pursue specific product or design concepts, and to commit the resources required to mature technology and reduce risks prior to development.

- **MS B:** Decision point to enter development of a specific product with an associated budget, suppliers, contract terms, and schedule. Generally considered the start of the program of record.

- **MS C:** Decision point based upon results of developmental testing and an operational assessment to enter Low Rate Initial Production (LRIP) of the product.

- **Initial Operational Capability (IOC):** Attained when selected organizations in the force structure received a new product and have the ability to employ and maintain it.

- **Full Operational Capability (FOC):** Attained when all organizations in the force structure scheduled to receive a product have received it and have the ability to employ and maintain it.
Updates & Advantages

The 5000.02 Operation of the Defense Acquisition System will be replaced with the DoD 5000.02 Operation of the Adaptive Acquisition Framework and the DoD 5000.xx Major Capability Acquisition Pathway. The Major Capability Acquisition Pathway allows for:

A Tailored-In Approach

- Program managers (PMs) can identify or “tailor-in” the information needed to manage their program
- PMs will be empowered to determine what regulatory information will be required to document program plans and how that information will be formatted and provided to the approval authority

Improved Responsiveness

- Functional area leads can change DoDIs separately and more rapidly without altering the DoDI 5000.02 as a single, integrated document.
- Functional area policies are uniquely designed for the needs of a specific community.
**Purpose**

This pathway is designed for software-intensive systems and/or software-intensive components or sub-systems. The pathway objective is to facilitate rapid and iterative delivery of software capability to the user.

**Characteristics**

This pathway integrates modern iterative software development practices such as Agile or Lean Software Development Methods, and DevSecOps. Capitalizing on active user engagement and leveraging enterprise services, working software is rapidly and iteratively delivered to meet the highest priority user needs. Tightly coupled, mission-focused government-industry software teams leverage automated tools for development, integration, testing, and delivery to iteratively deploy software capabilities to the operational environment.

- **Planning Phase:** The planning phase focuses on understanding the users’ needs and planning the approach to deliver capabilities to meet those needs.
- **Execution Phase:** This phase focuses on first scoping, developing and deploying a Minimum Viable Product (MVP) and Minimum Viable Capability Release (MVCR) to the Warfighter/end-user as quickly as possible; and iteratively developing and deploying remaining capability thereafter.
Purpose
To acquire information systems that support DoD business operations. This pathway applies to all defense business capabilities and their supporting business systems, including those with “as-a-service” solutions to include: financial and financial data feeder, contracting, logistics, planning and budgeting, installations management, human resources management, and training and readiness systems. This pathway may also be used to acquire non-developmental, software intensive programs that are not business systems.

Characteristics
This pathway assesses the business environment and identifies existing commercial or government solutions that could be adopted to satisfy DoD needs. DoD reviews its business processes and revises them to align more closely with commercial or government IT best practices. Customization of a selected information technology (IT) solution is minimal. DoD reduces risk and maximizes benefits by using commercial-off-the-shelf software that has been successfully demonstrated in the commercial marketplace.

- Capability Need Identification: Capability need is based on the desired end state in a business mission area, the problem(s) preventing it, and the future capabilities required to achieve it.
- Solution Analysis: Future capabilities are based on reengineering the high-level future business processes that will deliver the capabilities.
- Functional Requirements and Acquisition Planning: Describes how the business system will achieve the future business processes.
- Acquisition, Testing, and Deployment: Detailed fit-gap analysis follows solution selection based on the acquisition strategy. Fit-gap analysis will be based on the known capabilities of the Commercial-Off-the-Shelf/Government-Off-the-Shelf (COTS/GOTS) software in the selected business system solution.
- Capability Support: This phase provides support for the business capability, including continued cybersecurity readiness and enduring support for and appropriate upgrades to the business system.
ACQUISITION ENABLERS

Capability Need Identification

Solution Analysis

Functional Requirements & Acquisition Planning

Acquisition, Testing & Deployment

Capability Support

Solution Analysis ATP

Functional Requirements ATP

Acquisition ATP

Limited Deployment ATP(s)

Full Deployment ATP

Capability Support ATP

Market Research

Process

IT Solution Approach

Selection

IT Requirements Functional Requirements

Design Specifications

Organizational Change Management

Decision Point

Other key program event
Purpose
To acquire services from the private sector to include knowledge-based, construction, electronics and communications, equipment, facilities, logistics, medical, research and development, and transportation.

Characteristics
This pathway is intended to identify the required services, research the potential contractors, contract for the services, and manage performance. The pathway activities are broken into three phases: planning, developing, and executing and employs a seven-step process.

- Service Acquisition Process: The steps outlined in the figure above, Seven Steps to the Service Acquisition Process, should be used to the maximum extent possible to ensure the use of proven, repeatable processes and procedures contributing to successful services acquisitions.
Functional Area Enclosures
**Purpose**

- Clarifies roles and responsibilities that strengthen outcomes within the acquisition process to deliver lethal and resilient capabilities, regardless of the acquisition pathway.
- The active, focused and routine use of intelligence enables risk informed acquisition planning and solutions that defeat adversary capabilities.

**Updates**

- One Acquisition Intelligence policy applies to all pathways in the adaptive acquisition framework.
- Intelligence data dependencies drive fragility without long-term data solutions.
- Threat Support and Planning for Supportability
  - Acquisition Intelligence specialists provide direct input to the acquisition programs as part of the Program Manager’s team.
  - Specialists work with Intelligence Community Providers to articulate and plan for acquisition needs and assist in program office application of intelligence content to optimize acquisition outcomes.
- Critical Intelligence Parameters (CIPs)
  - CIPs identify threat capabilities or thresholds which, if achieved by adversaries, critically impact the effectiveness and/or survivability of a proposed system.
  - CIPs can help focus Intelligence Community collection, analysis, and reporting toward areas of highest importance for acquisition success.
  - Insight helps set US development, modernization, and resourcing timelines to maintain the competitive advantage over adversaries.
  - Configuration Steering Boards actively monitor capability status and adversary advancements.
- Effective Workforce Training
  - The OUSD(I) Acquisition Intelligence Career Occupation Program is newly enabled by DAU’s Credential Program, as Acquisition Intelligence skills differ from traditional intelligence skillsets.
  - ACQ 110 is the first of several modular training opportunities in development to support performance in the Acquisition Intelligence area.

**Advantages**

- Because technology is constantly advancing and there is a need to address changing threats, Acquisition Intelligence is focusing intelligence efforts where they help acquisition programs most.
  - Ex: Intelligence can inform investments using a modular open systems approach and how to consider intelligence dependencies to support resiliency throughout a program’s lifecycle. These types of inputs permit a more rapid response to technological improvements and emerging threats.
Purpose

- This update builds upon existing policy resulting from the USD(AT&L)’s Better Buying Power 3.0: Strengthen Cybersecurity Throughout the Product Lifecycle.
- Cybersecurity is a foundational aspect of any acquisition and has critical requirements that cannot be traded for cost, schedule, or performance.
- Cybersecurity requirements must be understood and incorporated early in the system lifecycle to effectively and correctly integrate into system program baselines.
- This policy is necessary to provide consistent guidance for decision authorities and program managers to implement proper levels of cybersecurity processes and practices for every acquisition throughout the supply chain, regardless of which adaptive acquisition framework pathway is used.

Updates

- One cybersecurity policy applies to all pathways in the adaptive acquisition framework.
- Policy is based on the DoDI 5000.02: Enclosure 14: Cybersecurity in the Defense Acquisition System (Change 5, October 21, 2019), but now incorporates:
  - Evolution of the scope of cybersecurity in acquisition, e.g., the Cyber Survivability Endorsement to the Joint Capabilities Integration and Development System (JCIDS) System Survivability Key Performance Parameter (SS KPP).
  - Establishment of a Chief Information Security Office (CISO) for Acquisition to prioritize cybersecurity in acquisition programs and within the Defense Industrial Base (DIB) supply chain.
  - Incorporates recent draft statutes related to DIB cybersecurity (HR.2500/S.1790 §233 §1634).
  - Incorporates recent statutes related to supply chain risk management (10 USC 2339a, PL 115-232 §889 §1654 §1655, and PL 115-91 §1656).

Advantages

- Provides a clear focus on the role of acquisition program managers and decision authorities as coordinators and overseers of all aspects of cybersecurity in acquisition programs. Other DoD policies address the details of specific functional aspects of cybersecurity in cyber technology (e.g., 5000.SE for System Security Engineering and 5000.UF for Developmental and Operational Testing of Cybersecurity)
- Adds new requirements to mitigate the risk of the specific threat of foreign ownership, control, or influence affecting key/critical parts of the DoD acquired systems supply chain.
- Adds a progressive framework for implementing and assessing a unified set of security controls and process maturity that will address and mitigate threats that impact the DIB sector’s ability to protect DoD controlled unclassified information.
Intellectual Property (IP)

- The Department released its first policy on Intellectual Property (IP) to support more effective approaches for acquisition and licensing of IP on October 16, 2019 – DoDI 5010.44, Intellectual Property (IP) Acquisition and Licensing.

- Acquiring and licensing the appropriate IP is vital for ensuring systems will remain functional, sustainable, upgradable and affordable.

- The policy highlights the DoD’s IP principles and helps guide the DoD to deliver world class capabilities at an affordable cost.

- It encourages the development and implementation of strategies for acquiring and licensing IP and technical data rights as well as clear communication with industry and the understanding and use of best practices.

- The issuance implements the Congressional mandates of §802 of FY18 NDAA, and recommendations that resulted from the §813 and §875 studies of FY16 NDAA.

IP Cadre

- The policy establishes an IP Cadre which will develop DoD guidance, training, and assistance to the whole of government effort to address protection of data rights
  - The Cadre is a collection of personnel who are experts in the acquisition, licensing, and management of IP.
  - Working with the Components, the Cadre will provide timely expert advice and assistance on IP matters, at various stages of the life cycle of a system.
  - The Cadre will also identify and promulgate best practices, support the development of training and credentialing, in coordination with DAU and input from all stakeholders including industry.
  - The OSD Cadre will be small and its members will advise, assist, and provide resources to DoD components on IP matters at various stages of the life cycle of a system.
  - The Department has established an interim IP Working Group to address the Department’s IP direction until the Cadre is fully operational.
Six Governing Principles

- Six principles govern the policy for acquisition and licensing IP:
  - IP planning must be fully integrated into acquisition strategies and product support strategies to protect core DoD interests over the entire life-cycle.
  - Every acquisition professional must have relevant knowledge of how IP matters relate to their official duties.
  - Negotiate specialized provisions for IP deliverables and associated license rights whenever doing so will more effectively balance DoD and industry interests than the standard or customary license rights.
  - Communicate clearly and effectively with industry regarding planning, expectations and objectives for system upgrade and sustainment.
  - Respect and protect IP resulting from technology development investments—by both the private sector and the Government.
  - Clearly identify and match data deliverables with the license rights in those deliverables. Data or software deliverables are of no value unless and until the license rights to use it are attached, and the Government actually obtains and accepts those deliverables.

Additional Efforts

- The Defense Acquisition University (DAU) is conducting an aggressive review of its training and course offerings, and is discussing arrangements with outside law schools to develop a comprehensive credentialing program in IP.

- In addition to the new issuance, a second tier of detailed guidance and manuals is being revised or created. This includes a revised IP Guide, revised Contract Data Requirement Lists (CDRL) Manual (DoDM 5010.12), a new IP Strategy Guide, and a new Valuation Guide.

Department of Defense Goal

- The Department’s goal is to bring balance by providing the best capabilities to the warfighter in the most efficient and cost effective manner for the tax payer by respecting, rewarding, and incentivizing Industry for continued innovation.
**Purpose**

- This new policy will distribute the fundamentals of mission engineering across the Department and reinforce overall mission effectiveness as a core value for investment decision-making.

- Mission engineering analyses provide information on combat effectiveness, affordability of current and future weapon systems and capabilities, and inform DoD acquisition program investment decisions.

- Mission Engineering is based on a 10-step process that begins with the prioritization of operational mission areas and ending with the continuous management of end-to-end mission threads to maintain the execution health of particular capabilities.

**Updates**

- Establishing mission engineering at the DoD level is not intended to apply to all mission areas or issues, but it does apply across all pathways within the acquisition framework.

- Effects/kill chains identify operational needs based on the way the forces plan to fight through mission threads captured in the Combatant Commanders’ operational plans and contingency plans.

- Effects/kill chains also inform the issue of the systems needed to accomplish a mission within a system-of-system context.

**Advantages**

- Mission engineering provides an efficient and effective mechanism to support capability portfolio management.

- The implementation of this process comes with challenges associated with governance structure, data availability and collection, stakeholder coordination across the DoD, multiple system life cycles due to maturation (legacy to new), and workforce/tool development; however, the effects/kill chain framework provides a mechanism to translate what the DoD plans to procure to the resulting capability.

- Mission engineering is appropriate to address gaps, shortfalls, and overlaps from the concept phase through the sustainment phase involving:

  - Complex, joint, and high-priority missions and problem sets.

  - Extensive collaborative and dynamic engineering analysis requirements.
• High level of risk or uncertainty in solution decisions
• Emphasis on optimization of more than one doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy area
• Continuing evolution of systems, networks, and capabilities
• Simultaneous modelling and simulation of a wide range of variables to understand the behavior of systems operating within a broader system.
• Rigorous interface design and management of the capability across multiple platforms or locations, which might involve combinations of military and industry standards at multiple layers.

A Generic Effects/Kill Chain

Ten-Step Mission Engineering Process
Purpose

- Provide overarching engineering management principles that guide the development of DoD systems
- Provide policy and procedure to conduct a comprehensive engineering program

Updates

- DoDI 5000.UJ (Engineering) is a new instruction which encapsulates Enclosure 3 from the most current CH5 DoDI 5000.02 and adds new language to strengthen the engineering process.

- Major Changes:
  - Independent Review
    - Reinforces “best practice” of independent review teams
    - Establishes R&E Priority List for select programs, primarily MDAPs
    - USD(R&E) monitors process, delegates responsibility as appropriate
  - Mission Engineering / Mission Integration
    - Initiated in concept exploration phase, prior to MDD
    - Holistic assessment of system concept, CONOPS, interoperability and overall mission effectiveness
    - Refreshed periodically throughout the program lifecycle
  - Program Technical Planning
    - Requires SEPs to be optimized to program needs
    - Reduces SEP approvals from 4 to 3
    - Earlier SEP deliveries to support RFPs
  - Program Technical Reviews and Assessments
    - Requires SRR/SFR, SVR/FCA, PDR, CDR, and PRR for priority list programs
    - ITRAs include schedule risk assessments
    - Separate TRAs not required for programs with ITRAs
  - Modular Open Systems
    - Severable major system components for lifetime evolution
    - Facilitates competition, enhancements and obsolescence management

Advantages

- Policy and procedures to conduct a comprehensive engineering program
Purpose

- Improve Test and Evaluation efficiency across the Developmental T&E, Operational T&E, and Test Resources Communities
- Reduce the time to get capability to the field
- Promote comprehensive integrated Test & Evaluation
  - Support department-wide efforts to provide shared data for independent analysis, evaluation, and reporting by all developmental and operational test and evaluation communities
  - Emphasize rigorous developmental testing to improve operational test outcomes

Updates

- DoDI 5000.uf (Test and Evaluation) is a new directive which encapsulates enclosures 4 and 5 from the most current CH5 DoDI 5000.02 while adding new language to provide framework to encourage the use of Integrated Testing and Evaluation.
- Applies to and is tailorable for all 5 pathways in the adaptive acquisition framework
- Clarifies the mutually supporting USD(R&E) and DOT&E Test & Evaluation oversight approach while maintaining the independence of both organization
- Ensures USD(R&E) and DOT&E Test & Evaluation activities are complementary, not duplicative or disruptive, to the activities of the military departments.
- Clarifies USD(R&E) and DOT&E T&E responsibilities for all acquisition pathways (e.g. 804 MTA and Urgent Operational).

Advantages

- Framework allows users to:
  - Understand the required scope and resources of the evaluations
  - Define the-end state for evaluations ahead of time
  - Develop an integrated testing approach that generates the data required to conduct independent evaluations
The following Functional Area Enclosure Information Sheets are currently in development:

- DoDI 5000.uh – Acquisition of Information Technology
- DoDI 5200.xx – Acquisition Security
- DoDI 5000.73 – Cost Analysis Guidance & Procedures
- DoDI 5240.24 – Counterintelligence Support to Research, Development and Acquisition
- DoDI 5200.39 – Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E)
- DoDI 5000.pr – Human Systems Integration in Defense Acquisition
- DoDI 5000.psm – Product Support Management
- DoDI 5000.xx – Technology and Program Protection