



Defense Health Agency

ADMINISTRATIVE INSTRUCTION

NUMBER 093
May 24, 2018

J-4/CAE

SUBJECT: Systems Engineering (SE)

References: See Enclosure 1.

1. PURPOSE. This Defense Health Agency-Administrative Instruction (DHA-AI), based on the authority of References (a) and (b), and in accordance with the guidance of References (c) through (e) and References (g) through (y):

- a. Establishes the Defense Health Agency's (DHA) procedures to implement DoD SE policies for acquisition programs and their supporting projects.
- b. Assigns responsibilities to implement the SE requirements in References (d) and (e).
- c. Cancels and reissues Reference (f).

2. APPLICABILITY. This DHA-AI applies to:

- a. DHA's Program Executive Offices (PEOs), their subordinate Program Offices, and Direct Reporting Program Managers (DRPMs).
- b. Other DHA personnel involved at any point across the entire acquisition product life-cycle in SE activities, such as planning, managing, analysis, research, design, development, fabrication, installation, modification, or sustainment of systems or system components.
- c. All DHA personnel, to include: assigned, attached, or detailed Service members, federal civilians, contractors (when required by the terms of the applicable contract), and other personnel assigned temporary or permanent duties at DHA, to include regional and field activities (remote locations), and the National Capital Region Medical Directorate/J-11 activities (centers, clinics, and Medical Treatment Facilities).

3. POLICY IMPLEMENTATION. It is DHA's policy, pursuant to References (d) and (e) and References (g) through (x), that:

- a. DHA will implement and sustain affordable systems that are operationally effective.
- b. Program Managers (PMs) and DRPMs will incorporate DoD-approved SE guidance, practices, and initiatives in their acquisition activities.
- c. SE-related acquisition documents will include the results of active planning for the future and demonstrate evidence of current performance against the allocated baselines.
- d. Personnel (government and contractors) involved in acquisition SE activities will have the appropriate level of education, skills, experience, and certification for their positions.
- e. The DHA Component Acquisition Executive (CAE)/(J-4) Chief Systems Engineer (CSE) will provide guidance and perform oversight of all acquisition-related SE policy, practice, procedures, and acquisition workforce issues within DHA.
- f. The CAE CSE will be the SE champion and will act as the liaison between DHA and other organizations on acquisition matters related to SE as needed.
- g. PMs and DRPMs may propose a tailored SE approach for Milestone Decision Authority (MDA) approval.

4. RESPONSIBILITIES. See Enclosure 2.


5. PROCEDURES. See Enclosure 3.

6. RELEASABILITY. **Not cleared for public release.** This DHA-AI is available to users with Common Access Card authorization on the DHA SharePoint site at: <http://www.health.mil/dhapublications>.

7. EFFECTIVE DATE. This DHA-AI:

- a. Is effective upon signature.

b. Will expire 10 years from the date of signature if it has not been reissued or cancelled before this date in accordance with DHA-Procedural Instruction 5025.01 (Reference (c)).



R.C. BONG
VADM, MC, USN
Director

Enclosures

1. References
2. Responsibilities
3. Procedures

Glossary

ENCLOSURE 1

REFERENCES

- (a) DoD Directive 5136.01, “Assistant Secretary of Defense for Health Affairs (ASD(HA)),” September 30, 2013, as amended
- (b) DoD Directive 5136.13, “Defense Health Agency (DHA),” September 30, 2013
- (c) DHA-Procedural Instruction 5025.01, “Publication System,” August 21, 2015
- (d) DoD Directive 5000.01, “The Defense Acquisition System,” November 20, 2007
- (e) DoD Instruction 5000.02, “Operation of the Defense Acquisition System,” January 7, 2015
- (f) DHA Memorandum for Chief of Staff, “Systems Engineering in the Defense Health Agency’s Program Executive Officer Organizations and Direct Reporting Programs,” August 4, 2014 (hereby cancelled)¹
- (g) United States Code, Title 10, Section 87
- (h) DoD Instruction 5000.55, “Reporting Management Information on DoD Military and Civilian Acquisition Personnel and Positions,” November 1, 1991
- (i) DoD Instruction 5200.39, “Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E),” May 28, 2015
- (j) DoD Instruction 5134.16, “Deputy Assistant Secretary of Defense for Systems Engineering DASD(SE),” August 19, 2011
- (k) DoD Instruction 4245.14, “DoD Value Engineering (VE) Program,” October 26, 2012
- (l) Office of the Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Document Streamlining – Life-Cycle Sustainment Plan (LCSP),” September 14, 2011²
- (m) Office of the Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Expected Business Practice: Document Streamlining – Program Protection Plan,” and Attachment, “Program Protection Plan Outline and Guidance,” July 18, 2011³
- (n) Office of the Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Expected Business Practice: Document Streamlining – Program Strategies and Systems Engineering Plan,” and Attachments, “Systems Engineering Plan (SEP) Outline, Version 1.0” and “Technology Development Strategy/Acquisition Strategy (Sample Outline),” April 20, 2011⁴
- (o) Defense Acquisition Guidebook⁵
- (p) Office of the Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Implementation Directive for Better Buying Power 3.0 – Achieving Dominant Capabilities through Technical Excellence and Innovation,” April 9, 2015⁶
- (q) Director, Operational Test and Evaluation (DOT&E), Memorandum for Users of the DOT&E Test and Evaluation Master Plan (TEMP) Guidebook, “DOT&E TEMP Guidebook 3.0,” November 16, 2015⁷
- (r) Director, Operational Test and Evaluation Test and Evaluation Master Plan Guidebook 3.0⁸
- (s) DoD Instruction 5000.66, “Operation of the Defense Acquisition, Technology, and Logistics Workforce Education, Training, and Career Development Program,” December 21, 2005
- (t) Under Secretary of Defense for Acquisition, Technology and Logistics Memorandum, “Key Leadership Positions and Qualification Criteria,” November 08, 2013⁹

- (u) DoD Instruction 8500.01, "Cybersecurity," March 14, 2014
- (v) DoD Instruction 8580.1, "Information Assurance (IA) in the Defense Acquisition System," July 9, 2004
- (w) The MHS Enterprise Architecture is maintained by the DHA Enterprise Architecture Branch.¹⁰
- (x) DoD Instruction 5000.75, "Business Systems Requirements and Acquisition," February 2, 2017
- (y) Public Law 101-510, November 5, 1990, as amended

¹This Reference is available by emailing the SE Point of Contact, Mr. Vu Phan at vu.a.phan2.civ@mail.mil

²This Reference is available at <https://dap.dau.mil/policy/Pages/overview.aspx>

³This Reference is available at <https://dap.dau.mil/policy/Pages/overview.aspx>

⁴This Reference is available at <https://dap.dau.mil/policy/Pages/overview.aspx>

⁵This Reference is available at <https://dag.dau.mil/Pages/Default.aspx>

⁶This Reference is available at <http://bbp.dau.mil/>

⁷This Reference is available at <http://www.dote.osd.mil/tempguide/index.html>

⁸This Reference is available at <http://www.dote.osd.mil/tempguide/index.html>

⁹This Reference is available at <https://dap.dau.mil/policy/Pages/overview.aspx>

¹⁰The DHA Enterprise Architecture Branch SharePoint Homepage page is available at https://info.health.mil/hit/portfolio/entarch/SitePages/EAB_Homepage.aspx

ENCLOSURE 2

RESPONSIBILITIES

1. DIRECTOR, DHA. The Director, DHA, will:
 - a. Implement the procedures in this DHA-AI and References (d), (e), and (x).
 - b. Establish and maintain a CAE CSE position as a Key Leadership Position (KLP) satisfying requirements established in References (s) and (t).
 - c. Ensure that personnel filling DHA KLPs are qualified and prepared.

2. CAE. The CAE is the principal advisor to the Director, DHA, for all acquisition matters. The CAE will:
 - a. Designate the CSE position as a KLP satisfying requirements established in References (s) and (t). The CAE establishes KLP requirements.
 - b. Charter a Defense Health Agency Component Acquisition Executive SE Integrated Product Team (DHA CAE SE IPT) to improve SE guidance, procedures, and training within DHA as related to acquisition programs.
 - c. Develop operating instructions and procedures to implement acquisition and SE policy, guidance, and processes that support DHA acquisition programs.
 - d. Verify that DHA acquisition programs implement approved SE policy, guidance, best practices, and initiatives.
 - e. Ensure the SE workforce supporting DHA acquisition programs meets or exceeds Reference (y) standards and qualification criteria.
 - f. Ensure the integration of SE disciplines in the delivery of timely, measurable improvements to DHA's medical capabilities at an affordable cost.
 - g. Approve the assignments of individuals to SE KLPs satisfying the requirement established in Reference (s).

3. CSE. The CSE is the principal advisor to the CAE on SE, development planning, and related engineering fields supporting acquisition programs and their constituent projects. The CSE will:
 - a. Advise the CAE on proposed architecture standards for their potential impact on acquisition programs.

- b. Ensure that the functional designs of medical systems are compatible with the overall integrated DoD and Military Health System (MHS) enterprise architectures in respect to the CAE's area of responsibility.
- c. Ensure that systems are engineered and implemented to operate coherently with other systems under the DoD and MHS enterprise architectures in respect to the CAE's area of responsibility.
- d. Establish a schedule for, and conduct SE Support Assessments to determine the effectiveness of SE in DHA acquisition programs to capture the value of SE to the programs, record lessons learned, and identify continual improvement opportunities.
- e. Institute and chair the DHA CAE SE IPT to improve SE guidance, procedures, and internal training within DHA as related to acquisition matters.
- f. Coordinate establishment of DHA SE procedures and standards.
- g. Establish a process to review the SE information artifacts of DHA acquisition programs and projects to ensure they follow applicable engineering processes, such as technical management processes, and meet statutory and regulatory requirements and standards. The process will ensure all SE documents reflect a balance between requirements, performance, cost, schedule, risk, overall effectiveness, and affordability for successful program execution.
- h. Review milestone and decision information artifacts when the MDA is the CAE or higher.
- i. Review program/project Life-Cycle Sustainment Plans (LCSPs), Program Protection Plans (PPPs), SE Plans (SEPs), Test and Evaluation Master Plans (TEMPs), and any other acquisition information artifacts prior to submission to the CAE. Reviews ensure plans follow applicable engineering processes, as well as statutory and regulatory requirements, such as technical management processes and CAE expectations.
- j. Ensure SE principles and objectives are addressed adequately and completely.
- k. Provide SE leadership, assistance, and guidance to DHA acquisition programs and other systems engineers involved in acquisition programs.
- l. Participate in Joint Capabilities Integration and Development System (JCIDS) document (or the equivalent artifact) validation activities on behalf of the CAE.
- m. Establish procedures to ensure adequate standards for education, training, experience, and certification for all staff in engineering positions.
- n. Provide written input for respective performance appraisals for Lead Systems Engineers (LSEs) designated in section 4.

o. Advise the CAE on potential candidates and recommend LSE position requirements for the PEOs and DRPMs KLPs.

4. PEO and DRPM. The PEO and DRPM will:

a. Advise the CAE via the CSE on potential candidates and recommend LSE position requirements for the PEOs and DRPMs KLPs of LSE.

b. Implement established processes to ensure portfolio programs meet DHA CAE expectations.

c. Maintain a centralized repository for SEPs, project plans, and other SE documentation.

d. Ensure that the health of each acquisition program/project is assessed with regularly scheduled technical reviews, test and evaluation events, and configuration management audits.

e. Ensure that the acquisition-related SE workforce participates in the DoD's continual improvement initiatives, such as the concepts expressed in the Better Buying Power initiatives (Reference (p)).

5. PEO LSE. The PEO LSE is the principal advisor to the CSE and the PEO on SE, development planning, and related engineering fields related to the programs, projects, and SE activities assigned to the PEO. With respect to acquisition programs and their supporting projects, each PEO LSE will:

a. Ensure that the functional design of systems in the PEO portfolio is compatible with the overall integrated DoD and MHS enterprise architectures in respect to the PEO's portfolio area of responsibility.

b. Ensure that PEO systems are engineered and implemented to operate coherently with other systems under the DoD and MHS enterprise architectures in respect to the PEO's portfolio area of responsibility.

c. Participate as a stakeholder in the DHA CAE SE IPT meetings.

d. Participate in SE Support Assessments.

e. Implement SE procedures and standards within the PEO to ensure all acquisition programs/projects meet applicable statutory and regulatory requirements.

f. Review SEPs, project plans, and SE products for PEO programs, and oversee the implementation of SE principles to ensure they provide an adequate level of information for use in programs and in the fielding of systems.

- g. Conduct an annual SEP (or the equivalent artifact) review for each program.
 - h. Review milestone and decision information artifacts when the MDA is the PEO or higher.
 - i. Review programs/projects LCSPs, PPPs, TEMPs, and any other acquisition information artifacts prior to submission to the PEO to ensure that the plans are prepared in accordance with Reference (e) and References (g) through (x).
 - j. Oversee technical reviews and test and evaluation activities to assess the health of each acquisition program/project and to validate that the technical reviews meet the required standards.
 - k. Oversee the execution of technical risks and opportunity management in support of the PEO's overall risk management process.
 - l. Conduct configuration management audits at the end of each life-cycle phase.
 - m. Provide SE assistance and guidance to programs within the PEO portfolio.
 - n. Participate in JCIDS document (or the equivalent artifact) validation activities for the PEO's portfolio.
 - o. Ensure that all staff in engineering positions with the PEO's portfolio actively identify technical opportunities to support the DoD's continual improvement objectives, such as the concepts expressed in the Better Buying Power initiatives (Reference (p)).
 - p. Ensure and enforce that PEO's portfolio staff meets or exceeds the standards for adequate education, training, experience, and certification for engineering positions.
6. PM. With respect to acquisition programs and their supporting projects, each PM will:
- a. Submit potential candidates and recommended LSE position requirements for the Program's KLP. Potential candidates will meet the position requirements established in References (s) and (t). LSEs for Acquisition Category (ACAT) I and Information Assurance (IA) programs will be dedicated to that program.
 - b. Designate an LSE for each other ACAT program who meets the requirements for their position description. LSEs for programs less than ACAT I or IA may be dedicated or matrixed.
 - c. Schedule technical reviews, test and evaluation events, and configuration management audits.
 - d. Ensure that the SEPs, PPPs, TEMPs, and LCSPs (or the equivalent artifacts) are created and maintained for each program/project, in accordance with Reference (e) and References (g) through (x).

e. Ensure appropriate analysis is conducted at key points in the program life-cycle. Examples of key analyses are SE analysis during the planning and execution of analysis of alternatives; requirements analysis after JCIDS document (or the equivalent artifact) validation; and analysis of technical performance measures and sustainment metrics, etc.

f. Conduct focused risk reduction prototyping and/or analysis on multiple solution options to support final program solution decision.

g. Ensure that their SE workforce helps the Program Management Office (PMO) plan to implement DoD's continuous improvement objectives, such as the concepts expressed in the Better Buying Power initiatives (Reference (p)).

7. PROGRAM LSE. The Program LSE serves as an advisor to the PM on SE-related matters. With respect to acquisition programs, each Program LSE, regardless of ACAT designation, will:

a. Ensure that the functional design of systems in the assigned portfolio is compatible with the overall integrated DoD and MHS enterprise architectures in respect to the PM's program area of responsibility.

b. Ensure that assigned programs and projects are engineered and implemented to operate coherently with other systems under the DoD and MHS enterprise architectures in respect to the PM's program area of responsibility.

c. Participate as a stakeholder in DHA CAE SE IPT meetings.

d. Participate in assessment of SE.

e. Implement DHA SE processes, procedures, and guidance to ensure assigned programs and projects are in compliance with applicable statutory and regulatory policies, processes, procedures, requirements, and guidance.

f. Develop, update, and submit the SEP and other SE documentation throughout the life of the program, in accordance with the Reference (e) and References (g) through (x).

g. Participate in the development of milestone and decision information artifacts for assigned programs.

h. Participate in the development and review of LCSPs, PPPs, TEMPs, and other acquisition information artifacts for assigned programs prior to submission to the PM to ensure the artifacts follow applicable engineering processes, and statutory and regulatory requirements (e.g., technical management processes and DHA CAE expectations).

i. Conduct technical reviews, tests, and evaluations that assess the health of each program.

- j. Participate in technical risk and opportunity management in support of the PMO's overall risk management process.
- k. Manage the configuration of the program, and support configuration management audits for assigned programs at the end of each life-cycle phase.
- l. Provide SE assistance and guidance to program/project personnel.
- m. Participate in JCIDS document (or equivalent artifact) validation, as requested by the PM.
- n. Ensure threat analysis, vulnerabilities, and countermeasures address the entire program boundary, and the residual risks that exist after countermeasures have been implemented are identified and addressed.
- o. Identify, propose, and when approved, implement technical concepts that support the DoD's continual improvement objectives, such as the concepts expressed in the Better Buying Power initiatives (Reference (p)).

ENCLOSURE 3

PROCEDURES

1. CSE CONCURRENCE. Development of, revisions to, and CSE concurrence on the LCSPs, PPPs, SEPs, TEMPs, and other acquisition information artifacts will follow the processes detailed below.

a. The PMO will:

(1) Obtain the current DoD-approved template for the specific document (or artifact).

(2) Utilize a process that implements the recommendations and guidance in Reference (e) and References (g) through (x).

b. The LSE will:

(1) Ensure that all engineering topic areas and questions found in the DoD template are addressed consistently within the document and any attachments.

(2) Ensure that the acquisition information aligns with all other acquisition engineering information for continuity and alignment with approved changes to planning and management activities across the life-cycle of the acquisition program.

c. The PEO, PEO LSE, PM, and Program LSE will review and approve the information. Their signatures will certify that the information meets the needs of the program and covers all SE aspects mandated by the DoD and DHA's guidance.

d. The PMO will submit formal review request for coordination of acquisition information related to SE to CAE/J-4 using the Correspondence and Task Management System. The PMO requests informal reviews by the CSE via email.

e. The CSE will:

(1) Review the acquisition information and any supporting artifacts to provide specific feedback. The typical timeframe for the CSE to provide feedback is 10 business days. This timeframe excludes time when the CSE is not available or when multiple information artifacts are submitted.

(2) Recommend acceptance or non-acceptance of the information artifact with comments, if appropriate, to the submitting entity and the MDA.

2. DHA CAE SE IPT CHARTER

a. The DHA CAE SE IPT charter will be issued annually or as required for concurrence. The charter's content will address the minimum elements of authority, purpose, background, scope, goals and objectives, membership, members' responsibilities, voting process, deliverables, and estimated suspense dates.

b. Development and Concurrence of the DHA CAE SE IPT Charter.

(1) CSE will present the draft annual charter to the DHA CAE SE IPT members during the first meeting of the new fiscal year.

(2) DHA CAE SE IPT members will agree and vote on the proposed charter's content.

(3) CSE will submit the final draft charter to the CAE for approval.

(4) CAE will approve and distribute the charter.

(5) CSE is the DHA CAE SE IPT charter champion and will act as the liaison between the DHA SE IPT and other organizations to reach consensus on the charter.

(6) If the charter requires revisions during the fiscal year, steps (1) through (5) above will be implemented.

GLOSSARY

ABBREVIATIONS AND ACRONYMS

ACAT	Acquisition Category
ACAT I	ACAT I is the designation for Major Defense Acquisition Program
ACAT IA	ACAT IA is the designation for Major Automated Information Systems
CAE	Component Acquisition Executive
CSE	Chief Systems Engineer
DHA	Defense Health Agency
DHA-AI	Defense Health Agency-Administrative Instruction
DHA CAE SE IPT	Defense Health Agency Component Acquisition Executive Systems Engineering Integrated Product Team
DRPM	Direct Reporting Program Manager
JCIDS	Joint Capabilities Integration and Development System
KLP	Key Leadership Position
LCSP	Life-Cycle Sustainment Plan
LSE	Lead Systems Engineer
MDA	Milestone Decision Authority
MHS	Military Health System
PEO	Program Executive Office
PM	Program Manager
PMO	Program Management Office
PPP	Program Protection Plan
SE	Systems Engineering
SEP	Systems Engineering Plan
TEMP	Test and Evaluation Master Plan