



DEPARTMENT OF THE ARMY
U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND
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REPLY TO
ATTENTION OF

AMSRD-CG

RDECOM PL 5-16-8
26 August 2016

MEMORANDUM FOR ALL U.S. Army Research, Development and Engineering Command (RDECOM) Personnel

SUBJECT: RDECOM Policy Letter – Science and Technology (S&T) and Research, Development and Engineering (RD&E) Systems Engineering (SE)

1. References:

- a. Army Materiel Command (AMC) Operation Order (OP-ORD) 16-189, AMC Mission Command Alignments, February 2016.
- b. RDECOM Policy Letter 5-14-4, Science and Technology (S&T) Portfolio Management, 7 November 2014.
- c. Army Regulation (AR) 70-1, Army Acquisition Policy, 22 July 2011.
- d. Memorandum for Program Executive Officers Direct Reporting Project Managers, 13 June 2005, subject: Army Systems Engineering Policy.
- e. Defense Acquisition Guidebook (DAG), Chapter 4.

2. Applicability: This policy is applicable to all RDECOM programs (e.g. Army Capability Enablers (ACEs), Science and Technology Objectives (STOs), etc.), projects and products. The policy also applies to RDECOM individuals charged to conduct SE efforts in support of S&T and RD&E projects and it recommends appropriate application of SE to assist customer projects in their success. This policy applies to all organizations within RDECOM Administrative Control (ADCON) or Operational Control (OPCON).

3. Purpose: To direct that SE activities and processes (as referenced below) shall be implemented in the development and execution of projects and products (as defined in para 2) throughout the command.

- a. The SE activities and processes shall be tailored to each project as appropriate as determined at each Research, Development and Engineering Center (RDEC) and the Army Research Laboratory (ARL).

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b. The detail, formality, and scope of SE activities are driven by the requirements, constraints and charter of the projects, products, and supported customers, and thus shall be tailored accordingly.

4. Roles and Responsibilities: To execute this policy the following roles and responsibilities for leadership and individuals working in SE throughout RDECOM have been identified.

a. Project Leads are responsible for the day-to-day execution and management of projects and products. To support Project Leads and improve SE execution of RDECOM projects, RDECOM makes available the RDECOM SE 'Basic' course and RDECOM SE 'Advanced' course. In addition, the Defense Acquisition University (DAU) offers the Technology Planning continuous learning module (DAU)-CLE-017.

b. The Project Systems Engineering Lead (P-SEL) is the individual with the responsibility of leading the implementation of SE activities on a project. The P-SEL will support the Project Lead. The P-SEL role may be a part-time or full-time position, depending on the level of effort for SE activities on the project. Also, depending on project need, the role may be filled by a separate individual, or added to the Project Lead or other Project Team member responsibilities.

The RDECOM recommends the use of any of the Project Plans, if applicable for the project, listed below as a best practice to plan and execute the required SE activities. Project Plans should be completed and approved (if applicable) prior to the start of a project.

(1) Project Plan Template in Annex A.

(2) An RDEC/ARL approved tailored project plan template.

(3) Other tailored use of a Traditional Systems Engineering Plan outline.

c. The Director for each RDEC/ARL will:

(1) Appoint a Chief Systems Engineer (CSE).

(2) Disseminate and encourage the use of activities and recommendations in this policy.

(3) Ensure, for cross-organizational projects, the Project Lead will coordinate with the individual supporting RDEC/ARL to establish the Project Plan, dividing the SE and program management tasks as appropriate.

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d. The CSEs from their respective RDEC/ARL shall:

(1) Participate in the RDECOM CSE Steering Group (SG) (see CSE SG Charter in Annex B).

(2) Share, as appropriate, best practices and lessons learned from their respective organization.

(3) Guide and coach the Project Lead and P-SEL on SE best practices.

(4) Advocate sound SE practices and tailored solutions, and promote the availability of tools to advance sound application of SE.

(5) Promote and advance the application of SE within their respective organizations, and advise the RDEC/ARL Director, as appropriate.

e. The CSE SG is the RDECOM corporate body responsible for improving and strengthening the culture, discipline, and consistency of applying SE processes within and among the RDECs/ARL. The CSE SG is composed of the RDEC/ARL CSEs, and led by the RDECOM HQ SE Director. The CSE SG shall:

(1) Support the development and continuance of SE Best Practices across RDECs and the ARL.

(2) Support initiatives to advance Workforce Competency in SE across RDECOM.

(3) Develop and maintain the RDECOM training curriculum, including the RDECOM SE 'Basic' course and SE 'Advanced' course. Assist with train-the-trainer to disseminate to the command.

(4) Serve as a resource for the Command to obtain SE help, as desired, and assist efforts by providing "Project Kick-Offs."

(5) Identify Best Practice SE tools, products, software packages, and memberships being purchased by multiple RDECs/ARL that would be appropriate for purchase at the enterprise level, and recommend implementation strategies and cost sharing approaches, as applicable, for RDECOM Board of Directors (BOD) consideration.

(6) Plan, develop, maintain, and update the RDECOM SE Policy and associated initiatives.

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(7) Coordinate with and/or represent the RDECOM SE Office in Department of Defense (DOD) and Army SE-level forums.

(8) Coordinate with and/or represent the RDECOM SE Office on Department of Defense (DOD) and Army SE-level initiatives.

5. The proponent for this policy is the RDECOM System Engineering Office, AMSRD-PEO-ESE, Mr. Thomas Haduch, thomas.w.haduch.civ@mail.mil, 410-278-4108.



2 Encls
Annex A: Project Plan Template
Annex B: RDECOM CSE SG Charter

CEDRIC T. WINS
Major General, USA
Commanding

Annex A (Project Plan Template) to RDECOM Policy Letter – Science and Technology (S&T) and Research, Development and Engineering (RD&E) Systems Engineering (SE)

<Project Name>

PROJECT PLAN (PP) Template

SUBMITTED BY:

_____ Date: _____
<Name>
<Title – normally Project Lead as appropriate>
<Organization>

CONCURRED BY:

Concurrences are needed from each stakeholder whose resources are required or affected. Add / delete concurrence signature blocks as needed.

_____ Date: _____
<Name>
<Title normally Project Lead Supervisor>
<Organization>

_____ Date: _____
<Name>
<Title System Integration Domain (SID) Lead>

_____ Date: _____
<Name>
<Title Chief Systems Engineer>

APPROVED BY:

Approval is needed from each organization that is committing their resources. Add / delete approved signature blocks as needed.

_____ Date: _____
<Name>
<Lead Organization, Technical Director>

_____ Date: _____
<Name>
<Supporting Organization and/or Customer Organization, Technical Director >

CHANGE RECORD

Annex A (Project Plan Template) to RDECOM Policy Letter – Science and Technology (S&T) and Research, Development and Engineering (RD&E) Systems Engineering (SE)

<Date of PP>

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Change information should be entered for each document revision.

Date	Version	Description of change	Primary author
June 2010	0.1	Initial version	
May 2016	1	Administrative Updates to include in new policy	

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Update TOC page numbers after “hiding” Template Text guidance. (See Instructions for directions on changing Template Text to “hidden”.)

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Introduction:

What follows is a collection of information that shall be considered and accounted for when planning and managing projects. This Project Plan template includes the sections necessary to address the requirements of a System Engineering Plan (SEP).

Instructions:

- *Each RDECOM Project Lead (or equivalent) shall develop a Project Plan, based on this guidance, with the assistance of the Project Team members. Project implementation, as described in the Project Plan, shall be approved by the organization’s Chief SE. A key consideration for the planning is the establishment of the mode of operation and the working relationships among the various participants, such as the Project Lead, Chief SE, Project System Engineer lead (P-SEL), customers, contractors, and the various program management offices.*

Template Text in Italics and highlighted in yellow provides guidance on the information that the Project Lead is required to document in the Project Plan

- *Information in plain text is boilerplate that is required to be included...*
- *The Project Plan is a living document and will be updated as needed to account for changing circumstances throughout the life of the project, IAW RDECOM Organizational Standard Process (OSP). Keep all paragraphs. When the paragraph is not applicable to the project, provide justification. For lengthy sections or tables in the Project Plan, Project Lead or their equivalent may create a separate annex to this document. Supporting documents must be referenced within this plan.*
- *Policies, procedures, templates, and examples are contained in the RDECOM Process Asset Library (PAL). The PAL can be accessed by visiting the following site.
<https://sp.kc.us.army.mil/sites/rdecomppi/SEPAL/default.aspx>*

The template text can be hidden by modifying the Template Text Style (On Menu Bar, select: Format | Styles & Formatting | in new window, scroll down and select Template Text style from pick list | click on Down Arrow box | Modify | Format | Font | select Hidden box). Once "hidden" the text is only visible when the paragraph markers (¶ button) are turned on. Hidden text can be included or excluded on print outs depending on the option setting (On Menu Bar, select: Tools | Options | Print, select or deselect “Include with document” Hidden text box).

NOTE: The yellow highlighted template text provides guidance only and is not required for inclusion in the Project Plan.

1 Purpose of Project Plan

Provide a brief statement that describes the reason why this plan exists.

Describe the approach for updating this plan given that it is a living document. The description should list the primary sources and event triggers for plan updates.

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This Project Plan describes the process, resources, training, and schedule for implementing the requirements of the <insert name of your project> Project. This Project Plan also documents the project’s defined processes as tailored from the RDECOM Organizational Standard Process (policies and procedures).

The project plan will be reviewed and updated IAW the RDECOM OSP or when re-planning is needed due to changes in requirements, discovery of new risks, analysis of the project’s defined process shows adjustments are needed, etc.

2 Project Purpose & Scenario

Briefly state the purpose of the project and the needs being satisfied. Refer to the Project Charter as appropriate.

3 Project Background

Summarize the history and other important background information related to the project.

4 Project Scope Statement

Summarize the top-level goals, objectives, and customer expectations to be achieved. Note the customer constraints and expectations (cost, schedule, performance objectives) that the Project Lead or equivalent cannot change without renegotiation. Put clear boundaries on the project activities. Refer to the Scope Statement as appropriate.

5 Guidance Documents

Identify the applicable reference documents (Government or commercial) needed to provide programmatic guidance. The list may be in the following format:

Document ID	Title
DAG	Defense Acquisition Guidebook

6 Project Technical Status as of Date of Project Plan

Describe the programs technical status. Include a description of past milestones achieved and the current project life cycle phase. Identify any critical path events, major milestones, as well as Open Hazards (Safety, Environmental, etc) that are required to be closely tracked. Describe deliverables or key events that are required to be completed by other programs to field a complete Family of Systems (FOS) or System of Systems (SOS) mission capability. Provide a status of these deliverable and key events.

7 Stakeholders and Responsibilities

Identify the stakeholders of the project’s products and services, and summarize the interface between the stakeholders and the project. The Project Lead, Project System Engineer, and other members of the Project Team, and all other persons (as appropriate) with a vested interest in the project should be specifically

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identified by name. This list can be tailored to reflect the stakeholders and needed expertise for each individual project. Individuals may have multiple roles.

The following individuals have the indicated roles on this project:

Table 1 Roles and Responsibilities

Project Role <i>(Table must be updated to add, delete, and revise information as applicable to the project)</i>	Name & Organization & Contact information (phone/email)	Primary Responsibilities <i>(If different than in Organizational Standard Process)</i>
Customer		
< add rows as needed >		
MANAGEMENT/OVERSIGHT		
Chief SE		
< add rows as needed >		
PROJECT MEMBERS		
RDECOM Project Lead or equivalent		
Project System Engineer		
<i>Design Engineering Lead (DEL)</i>		
<i>Project Process Assurance (PA) Representative</i>		
<i>Configuration Manager</i>		
<i>Measurement Analyst</i>		
<i>Risk Management POC</i>		
<i>Quality Engineer</i>		
<i>Contractor</i>		
<i>Contracting Officer Representative (COR)</i>		
<i>Contract Specialist</i>		
<i>Contracting Officer (CO/KO)</i>		
<i>Other IPT Members</i>		

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Project Role <i>(Table must be updated to add, delete, and revise information as applicable to the project)</i>	Name & Organization & Contact information (phone/email)	Primary Responsibilities <i>(If different than in Organizational Standard Process)</i>
<i>(not mentioned above)</i>		
< add rows as needed >		
SUPPORT SERVICES		
< add rows as needed >		

8 Stakeholder Communication/Coordination

8.1 Stakeholder Coordination Plan

Identify stakeholder involvement and relationship to the project. This section of the Project Plan should document how groups will communicate and coordinate project activities and progress. Where possible, use a matrix, such as the one provided below. The Project Plan may further describe how stakeholders will communicate both internally and externally, including any communication or coordination restrictions.

If multiple Project Teams are involved, insert a column in the matrix for each additional team and label each with the name (e.g. Systems, Software, and Test). Insert X's in matrix to designate which roles are involved in each project activity.

Table 2 Stakeholder Communication/Coordination Matrix (*)

Project Activities <i>(Table must be updated to add, delete, and revise information as applicable to the project)</i> <i>Insert X's in matrix to designate which roles are involved in each project activity.</i>	Project Lead	Project System Engineer	<i>Project Representative</i>	<i>Configuration Manager</i>	<i>Design Engineering Lead (DEL)</i>	<i>Team Members</i>	<i>Contractors</i>	<i>Customer/User</i>	<i>Management</i>	<i>Systems Engineering Area Lead</i>	<i>SE Lead</i>	<i>Process Advocate</i>	<i>Contract Support (COR & CO/KO)</i>	<i>< add columns as needed ></i>
Requirements Development & Management														
Project Plan Development														
Contractual Efforts														
Architectural Specification														

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Project Activities <i>(Table must be updated to add, delete, and revise information as applicable to the project)</i> <i>Insert X's in matrix to designate which roles are involved in each project activity.</i>	Project Lead	Project System Engineer	Project Representative	Configuration Manager	Design Engineering Lead (DEL)	Team Members	Contractors	Customer/User	Management	Systems Engineering Area Lead	SE Lead	Process Advocate	Contract Support (COR & CO/KO)	< add columns as needed >
	Functional Specification													
Detail Design														
Implementation and Test														
Component Integration														
System Integration														
System Testing														
PCA/FCA														
Documentation														
Status/Technical Reviews														
Project PA Activities														
Training														
Configuration Management														
Data Management														
<Add rows as needed for additional activities>														

(*) The following should be inserted into the table as appropriate:

R-Responsible (the person(s) who performs the action/task)

A-Accountable (the person who is accountable that the action/task is completed and done adequately)

C-Consulted (the person(s) who is asked for their input before performing the action/task)

I-Informed (the person(s) who is informed after performing the action/task)

8.2 Organization Chart

Insert an organization chart that depicts the project and its relationship with other external parties.

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8.3 Meetings and Status Reporting

Describe how project status will be reported: frequency, reporting mechanism, and intended audience, roles, and topics to address.

The following table is an example in the recommended format. Modify this table to match the project needs.

Table 3 Meetings and Status Reporting

Review / Report Name	Frequency	Recipients
<i>Project Review</i>	<i>Quarterly or as needed</i>	
<i>Technical Review</i>	<i>Semi-annually or as needed</i>	
	<i>Quarterly or as needed</i>	
<i>Senior Management Review (SMR)</i>	<i>Semi-annually or as needed</i>	
<i>External Commitment Review</i>	<i>Event-Driven (Detailed in the Project Schedule)</i>	<i>Program Manager Customers</i>
<i>Competency Review</i>	<i>Quarterly Significant Milestones</i>	
<i>Project Management Review</i>	<i>Monthly Significant Events</i>	<i>Project IPT</i>
<i>Contract Milestone Review</i>	<i>Significant events Detailed in the Project Schedule.</i>	<i>Contractor Reps COR Project Lead Project PA Rep</i>
<i>Weekly Activity Reports</i>	<i>Weekly</i>	
		<add rows as needed>

8.4 Technical Reviews

Describe the approach and strategy for conducting technical reviews (reviews to confirm outputs of the acquisition phases and major technical efforts within the acquisition phases, and where a formal decision is required) and address how the overall review process demonstrates completion of required accomplishments by satisfying criteria in an event-driven schedule {Ref. DAG Sects [4.2.3.1.3](#), [4.3](#), [4.3.1.4](#), [4.3.2.4](#), [4.3.3.4](#), [4.3.4.4](#), [4.3.5.4](#), [4.5.1](#), and [4.5.9](#)}. The overall technical review approach selected is tailorable based on the complexity of the project. The key information to convey in this section is how the P-SEL will use each technical review to assess technical maturity, assess risks {Ref DAG Sects [4.2.3.1.5](#) and [11.4](#)}, and support project decisions at the overall system level and down to configuration items of the system. The plan should describe how technical reviews will enable an independent assessment of emerging designs against the plans in order to demonstrate and confirm completion of required accomplishments and readiness to proceed to the next key milestone. This

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is especially important for evolutionary acquisition strategies, using spiral development processes, or multi-component projects (family-of-systems or system-of-systems projects). The technical review approach should be integrated across the government, contractor, and lowest level of supplier.

Address the contractual, workforce, and other scheduled resources required to adequately conduct the technical reviews. The description should include:

- *The technical review membership composition, including the method for nominating and approving the chairperson and membership;*
- *The number of technical reviews planned;*
- *The entry and exit criteria for each review; and*
- *The timing of each review and how technical reviews are used to manage the technical effort.*

9 System Capabilities, Requirement, and Design Considerations

Outline the overall capabilities, concept(s) of operation, and requirements (specified and derived) of the project, as appropriate. This section provides the reader a basic understanding of the problem at hand. The minimum information to convey is:

Summarize the customer-defined goals, objectives, and requirements (cost, schedule and performance also include statutory, regulatory, and certifications) to be achieved. Reference the project's Requirement Summary List (RSL) or equivalent requirement document(s), or attach as an Appendix to this plan.

Capability required and operational concept(s) (if appropriate, the JROC approved Concept of Operations), referencing the appropriate JCIDS documents (e.g., ICD, CDD, or CPD) {Ref CJCSM 3170.01 and DAG Sect 4.1.3};

The Key Performance Parameters (KPPs) and the rationale and basis for the KPPs {Ref CJCSM 3170.01}; KPPs should be listed under the measurement specification section in your project measurement plan.

Certification Requirements: describe the mandatory certification requirements levied upon the project at each level of development (i.e., element, system, integration, interoperability, joint, and coalition), including the applicable source for the certification requirement (e.g., statute, regulation, or instruction);

Design considerations/constraints: for any special design considerations that must be integrated into the engineering design effort, describe the constraints and describe how they will be technically addressed. {Ref DAG, Sect 4.4}

Describe the approach to be followed for identifying, evaluating, and reporting opportunities for incorporating or developing reusable components. Describe the approach to be followed to ensure the reusability of such components.

Identify the organization that will provide life cycle support of the products being acquired, the facilities, resources, and long-term growth requirements.

10 Acquisition Strategy

Describe the project's strategy to be employed for acquiring the project work products or services, including use of in-house resources/development, contractor resources/development, COTS, NDI, constraints, risks, etc. Include the project's make/buy decision rationale and reuse consideration.

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11 Life Cycle Model

Identify the life cycle model to be used in the project and rationale for selection (e.g., Incremental, Spiral, Waterfall, Development, Plan/Do/Check/Act, etc.). Describe all modifications or tailoring of the model. Examples of life cycle models are available [as](#) part of the RDECOM OSP.

12 Resources and Schedule

Describe the overall approach to identify schedule and resources, including people, material, equipment, facilities, contractors, etc. Describe in detail in the following subparagraphs.

12.1 WBS Activities

Describe or reference the project Work Breakdown Structure (WBS). Include project tasks, work products, logistics considerations, resource requirements (computer, people, and money). Use of graphic representations strongly encouraged. {WBS reference MIL-HDBK-881}

12.2 Schedule

Describe or reference the project schedule. The schedule shall include the calendar dates (start, end, and duration), critical relationships, sequencing and dependencies among the tasks, and identify those tasks that constitute the critical path(s) for the project. (Consider project deliverables and work products identified in Table 7 and include reviews and milestones.) Identify all scheduling assumptions not recorded in the schedule. Note: Commercially available project management software can greatly simplify task planning, tracking, and updating.

12.3 Basis of Estimate / Work Product Size Estimates

Summarize the size estimates for the project's work products listed in the WBS. Examples of size estimates include: number of requirements, number of functions, number of features, lines of code, and number of pages. The particular size estimates used should be chosen so as to serve as a useful basis for effort and cost estimation. Identify all size estimating assumptions and the basis or derivation of the estimates. Estimating methods/assumptions may be captured as part of the cost estimating model or in a separate cost analysis document, which should be referenced here.

12.4 Effort, Staffing, and Cost Estimate

Summarize the effort, staffing, and cost estimates for the tasks identified in the WBS and Obligation Plan. Estimates should address costs for: labor (direct and contracted), support tools, facilities, and training. Identify all estimating methodologies, rationale and assumptions used. Discuss the level of granularity used for the estimates, explaining why that is sufficient for the purpose at hand. If estimates are captured in a separate document, reference it here and describe the total manpower and cost here.

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12.5 Engineering Environment

Define the Engineering Environment to be used in the project. Describe the approach to be followed for establishing, controlling, and maintaining the development environment. This approach includes: identifying the required engineering facilities and tools, estimating the capacity requirements of these facilities and tools, assigning responsibilities for procuring or developing these facilities and tools, and identifying commitments for when these facilities and tools will be available. In the table below, fill in detailed planning. Expand the table as necessary to include the project’s tools.

Please note: the engineering environment described in this section should cover both technical and non-technical environments. One example of non-technical environments is management support tools used by the project (e.g., PCs, MS Office, MS Project, DOORS).

If different environments will be used for development, testing or support, identify the differences and identify the requirements that must be placed on the development environment to ensure compatibility with the test and support environments. The table below is used for planning for support tools, test equipment and software, simulations, prototypes, and facilities. Note: Identify tools to be used for Requirements Management, Process Assurance, Product Evaluation, Configuration Management, Data Management, Measurement and Analysis, Risk Management, etc.

(Table must be updated to add, delete, and revise information as applicable to the project)

Table 4 Engineering Facilities and Tools

Facility/Tool Category	Facility/Tool ID	Facility/Tool Capacity	Responsible Person	Rationale	Date Required
Non-Technical Environment					
Project Management tool					
Measurement tool					
Data Management tool					
Project CM tool					
< add rows as needed >					
Development Environment					
Hardware Needs					
Software Needs					
Network Equipment					
Lab Facilities/Space					
Development Tools					
Modeling and Simulation Tools					
< add rows as needed >					

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Facility/Tool Category	Facility/Tool ID	Facility/Tool Capacity	Responsible Person	Rationale	Date Required
Integration and Test Environment					
Lab & Field Test					
Hardware					
Software					
Network Equipment					
Test Tools					
<i>Test Ranges/Logistics</i>					
<i>< add rows as needed ></i>					
Operational Environment					
Operational Hardware					
<i>Field Support/Logistics</i>					
<i>< add rows as needed ></i>					

12.6 Contractor Efforts

If applicable, describe the project support that will be obtained through contractors and suppliers (Other Government Agencies). If this information is in a separate document, reference it here.

12.6.1 Contractor Work Allocation

Identify and describe work to be performed by contractor(s).

12.6.2 Contracting Strategy

Describe the strategy to be employed when contracting for the products and services. Identify the procurement approach (competitive, sole source, task order, etc.), contract type, constraints, risks, etc.

12.6.3 Management of Contracted System Engineering Efforts

Describe how the contract, subcontract, and supplier, if applicable, are managed. Describe the following:

How sources will be selected {[Ref DAG Sect 4.2.2](#)};

The approach for contractor award fees and performance incentives;

For interdependent, family-of-systems, or system-of-systems projects, describe the contracting strategies for enticing industry-to-industry cooperation to include associated contractor agreements (ACA) and award fee considerations, and how performance incentives are linked or inter-related to optimize top-level system performance.

When applicable, describe how the project will ensure that the contractor is following the established RDECOM OSP.

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12.6.4 Contractor Environment

Describe the environment that will be used by the contractor to develop and support the products and services being acquired. Describe the approach to be followed for establishing, controlling and maintaining the environment.

Identify any Government furnished equipment and information.

13 Project Training Needs

Identify the knowledge and skills needed to perform the project activity and/or tasks. Compare these to the knowledge and skills of the available project personnel to identify gaps. Document training that is needed and how these needs are to be satisfied. This information may be included in this section of the Project Plan or by reference if in a separate document.

Table 5 Project Training Needs

Training Topic	Individuals or Group Names	Training Needed By
Requirements Management Tools (DOORS)		
<enter training>	<enter personnel names>	<enter date>
<i>< add rows as needed ></i>		

14 New Technology Pilots and Process Pilots

When applicable, describe new technologies and/or new processes to be incorporated or piloted by this project. New technologies and/or processes can be new tools used by the project team to execute the project. Examples of technology tools that may be new to your project or team are requirements management tools and development tools. Examples of processes that may be new to your project or team may include risk management processes.

New technologies/processes can also be technologies/processes inherent in the product/service your project has to deliver to the customer. For example, the new technology can be a new propellant formulation/process or new material compound needed to achieve your project’s performance requirements. Your project may be developing these technologies within its scope of work or it may be reliant on sources external to the project to deliver the technology.

15 System Engineering Process

Describe the overall SE process to be used on the project, including:

- The basis for selection (e.g., commercial standard, organizational process, etc.),*

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- the purpose and objectives of the process { Ref DAG Sects [4.2.3.1](#) and [4.2.3.2](#) }, and
- The technical authority responsible for implementation of the SE Process.

15.1 Stakeholder Requirements Definition

Specify the approach and methods used to define the performance and functional requirements. The following areas should be considered:

- Reliability and Availability
- Maintainability, Supportability, and Integrated Logistics Support (ILS)
- Survivability including Nuclear, Biological, and Chemical
- Electromagnetic Compatibility, Radio Frequency Management, and Electrostatic Discharge
- Human Engineering and Human Systems Integration
- Safety, Health Hazards, and Environmental Impact
- System Security
- Producibility
- Test and Evaluation
- Testability and Integrated Diagnostics
- Computer Resources
- Transportability
- Infrastructure Support
- Other Engineering Specialties bearing on the determination of performance and functional requirements
- User Training for Project Product

Such requirements include all product and component functional requirements, performance requirements, interface requirements and other detailed requirements.

This section should refer to other project documents, as appropriate (e.g., Project Charter, program ICD, CDD, or CPD; Acquisition Strategy; Technology Development Strategy; Integrated Master Plan (IMP) and Integrated Master Schedule (IMS), including the schedule for contractor, developmental, and operational testing; and the Test and Evaluation Strategy (TES) or Test and Evaluation Master Plan (TEMP), as appropriate, for the current phase of the project).

Describe the approach to be followed for participating in system requirements development and analysis. For projects that consist solely of software or hardware development, there is no distinction between system requirements and software or hardware requirements (see below). For systems that are to be delivered incrementally and for which requirements are expected to evolve, systems requirements analysis includes the definition of the requirements for each incremental delivery.

Describe how the project will develop and analyze the requirements to ensure that user's needs, expectations and intended use of the system or product can be met.

Describe the participation of the project team in defining and refining the requirements to be met by the system or product and the methods to ensure that each requirement has been met. Such requirements include all product and component interface requirements and other detailed requirements.

Also, describe the approach to be followed to define the requirements to be met by each major component, the methods to be used to ensure that each requirement has been met, and the traceability between the component

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requirements and the system requirements. For systems that are to be delivered incrementally and for which requirements are expected to evolve, requirements analysis includes the definition of the requirements for each incremental delivery.

15.2 Requirements Analysis

Describe how the project will allocate the requirements to functions into the functional architecture to ensure that user needs, expectations and intended use of the system or product can be met.

15.3 Architectural Design

Define the approach and methods to: translate the outputs of the Stakeholder Requirements Definition and Requirements Analysis processes into alternative design solutions; define interfaces for each solution; and select a final design solution.

Describe the approach for defining the architectural design of the system (identifying the components of the system, their functional and physical arrangement within the system, their interdependence and interfaces, and the concept of execution among them) and the traceability between the system components and requirements.

Describe the approach for defining the system-wide design decisions (i.e., those decisions regarding the system's behavioral design and other decisions affecting the selection and design of system components). For systems that are to be delivered incrementally, systems design includes the design of each incremental delivery.

Describe the approach to be followed for participating in system and component design processes.

Describe the approach to be followed for defining the architecture of each major component (identifying the functional and physical characteristics of each component, their subcomponents, their external interfaces, and the concept of execution within the system) and the traceability between the subcomponents and requirements.

Describe the proactive approach (Failure Modes and Effects Analysis, Fault Tree Analysis, etc.) to identify potential problem areas with the design and address/correct them prior to implementation.

15.4 Implementation

Describe the approach to be followed for implementation. For each (or set of) component(s) specified in the physical architecture, describe the approach to be followed for component implementation (i.e., where the lowest system element items are made, bought, or reused, and are made ready for later systems integration, verification, and validation).

15.5 Integration

Describe the approach to be followed for integrating the lowest-level parts and testing the resultant higher-level components. If integration is to be performed in stages, those stages are to be described along with the associated test approach.

Describe the approach to be followed for integrating the components (i.e., assemble a system that is consistent with its architectural design, incorporating components into a higher-level system element) and testing the

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resultant system (i.e., incorporating the final system into its operational environment and defined external interfaces).

Describe the approach to be followed for establishing test cases (in terms of inputs, expected results, and evaluation criteria), test procedures, and test data for conducting testing, and for ensuring the traceability between the test cases and the requirements.

Describe the approach to be followed for making all necessary revisions to the component parts, performing all necessary retesting, and for updating other work products, based on the results of system and sub-system integration and testing.

16 Product Evaluation

Within this section, describe the incremental process, environment, criteria and methods to be used to verify that the products and intermediate work products satisfy all selected requirements and intended use. Planning for support tools, test equipment and software, simulations, prototypes, and facilities can be addressed in Table 4 in Section 12.5, Engineering Environment. Quantitative and quality goals for evaluation, data collection and analysis strategy should be addressed in Section 26, Measurement and Analysis. When appropriate, describe how the quality goals have been allocated to contractor evaluation plans. Describe how the project's evaluation activities will avoid duplication by taking advantage of evaluation results. Describe how consistency will be maintained across work products.

16.1 Peer Reviews

Describe when and how this project will use peer reviews to critically assess the quality, reasonableness and validity of work products. Describe how identified issues and problems will be collected, analyzed, and resolved. Work products to be peer reviewed are to be identified in the Work Products table, Table 7.

16.2 Verification

The verification process confirms that system elements meet their design-to or build-to specifications. Verification answers the question “Are you building the system right?”

Describe the plans for verifying that the product properly reflects the specified requirements. Identify the work products to be verified and the verification methods for each. Describe the verification environment, procedures and criteria for the selected work products. Work products to be verified / validated can be identified in this section or in the Work Products Table, Table 7.

16.3 Validation

The validation process tests the performance of systems within their intended operational environment, with anticipated operators and users. Validation addresses the question “Did you build the right system”

Describe the plans for validating that the product will fulfill its intended use. Identify the work products to be validated and the validation methods for each. Describe the validation environment, procedures and criteria for the selected work products.

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This section should include an overview of the test plans such as Test and Evaluation Strategy (TES) or Test and Evaluation Master Plan (TEMP), demonstrating how the test and evaluation strategy meshes with the systems interoperability, joint, and coalition test and certification, as applicable.

17 Transition

Describe the plans/strategy for transitioning the completed end products/elements from one portion of the system architecture to another, for further development, integration or to the end user for operational use. The plan should clearly describe: 1) the delivery of lower-level system model products to higher-level ones for integration into an end product which is a composite of two or more lower-level products, or 2) the delivery of the end product to the customer or user. The plan should include a list of the items to be transitioned, the destination of transition, a demonstration by the receiving organization of their capability to support the transitioned product(s), and the configuration control during transition. The plan should also list the potential Transition Manager and end user. For Army Capability Enablers (ACEs), Science and Technology Objective (STO) Projects (formally known as Army Technology Objective – Demonstration (ATO-D),) or equivalent projects, Technology Transition Agreements (TTAs) are required NLT one year prior to the project end. When applicable, identify the type of transition, categorizing it as: 1. for further development, 2. integration, or 3. for operational use.

18 Requirements Management

Reference the project's requirements document(s) or include as an Appendix to the Project Plan. Describe the approach to manage and control the project's requirements. The requirements management approach should provide requirement traceability, requirement constraints, rationale for requirement changes, and evidence of management activities. Identify the requirements change approval authority.

19 Interface Management

Describe the approach to manage and control the project's internal and external interfaces. Identify the necessary interface control documents, and subsystem, component and vendor specifications required to manage the internal and external interfaces, and their sequence of release to baseline Configuration Management. Identify the necessary interface control working groups required to manage the documents and the work of diverse members of the project team.

20 Process Assurance

Describe how the PA discipline will be applied to this particular project. Process Assurance measures the adherence to the project plan. Update the table below as appropriate to specify the process assurance tasks to be performed. For each task, address: the applicable process, standard, or procedure to be reviewed; the frequency of the task; the resulting product(s); and the reporting chain. Identify the methods of reporting and tracking issues.

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Note: PA tasks are to be included in the project’s overall WBS/Schedule. Storage and peer review requirements of PA work products are to be addressed in the Work Product Table 7. Coordination with stakeholders on tasks is to be addressed in the Stakeholder Coordination Plans section.

The Project PA Representative(s) shall perform the following tasks:

(Table must be updated to add, delete, and revise information as applicable to the project)

The Project PA Representative(s) shall perform the following tasks:

(Table must be updated to add, delete, and revise information as applicable to the project)

Table 6 Process Assurance Activities

Task	Procedure or Method	Frequency	Work Product	Report Results To
PA Planning. Assistance with and review of Project Plan.	<Enter applicable procedure or method>	At creation and update of Project Plan IAW the RDECOM OSP	Project Plan	Project Lead
Review of performed processes for adherence to process descriptions, standards and procedures as described in the approved Project Plan. Identification of issues. <Add rows to define individual activities to be reviewed>	<Enter applicable procedure or method>	<Enter frequency>	Review Findings, Corrective Action Plan (CAP)	Project Lead, , Project Team ,SE Lead <i>Process Advocate</i> , Project SE
Ensure Performance of Work Product audits for compliance with standards.	<Enter applicable procedure or method >	Per selected work product	Work Product Audit Results, Corrective Action Plan (CAP)	, Project Lead, Project Team , SE Lead, <i>Process Advocate</i>
Formal independent process audits, when required.	<Enter applicable procedure or methods>	As determined by SE Lead	Initial PA Audit Checklist, Corrective Action Plan (CAP)	Audit Results and Corrective Actions reported at appropriate reviews

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Task	Procedure or Method	Frequency	Work Product	Report Results To
<Add rows as needed for additional tasks>				

21 Configuration Management

Describe how the Configuration Management (CM) discipline will be applied to this project.

Reference Table 7 in Deliverables/Work Products section for identification of work products to be placed under Configuration Management control. Reference Environment section for configuration management tools to be used. Identify the assignment and responsibility of Configuration Management roles in this section.

Delineate who has the responsibility for technical baseline management and control, how the functional, allocated and product baselines will be managed and controlled, and identify by name the specification documents that require development and those which currently exist as legacy requirements and specifications { Ref DAG Sects [4.2.3.1.6](#), [4.2.3.1.7](#), and [4.2.3.1.8](#)}. If appropriate, include the approach for documenting and controlling baselines developed as part of a family-of-systems or system-of-systems solution.

Provide how each technical baseline is developed, managed, and used to control system requirements, design, integration, verification, and validation to include change control strategy for baselines and configurations and specific products that constitute the technical baseline.

The plans can be included here or referenced if it is a separate document.

22 Data Management (DM)

Reference Table 7 in Deliverables/Work Products section for identification of project data to be collected and distributed. Project data can be deliverable or non-deliverable items, such as reports, manuals, correspondence, minutes, actions items, etc. Describe how the data will be collected. Address access and ownership of the data. Describe the tools and procedures to be used to ensure privacy and security, and integrity of the data. Specify data content and format description (i.e. standards), as applicable. Address schedule for collection of project data.

Reference Engineering Environment section for tools to be used.

Refer to AMC Guide for the Preparation of a Program Product Data Management Strategy – Available on the RDECOM PAL

23 Project Deliverables/Work Products

Identify all deliverable products, as well as internal use products. Work Products include statements of work, requirements documents, planning documents, architecture documents, test documents, procedures, computer programs, and associated documentation, whether intended for delivery to a customer / end user or not.

Use/update table below as appropriate and add additional work products applicable to the project. Identify whether the work products is to be placed under configuration management or data management by entering X in the appropriate column(s). Identify the master location of each work product, and type of peer review, if applicable.

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For work products that are developed based on a standard, the standard should be identified in the Work Products column under the work product name. The standard should be used during peer reviews of the work product to ensure compliance with the standard.

Table 7 Work Products

<p>Work Products <i>(Table must be updated to add, delete, and revise information as applicable to the project. Insert X in type of control column (DM and/or CM) for each Work Product.)</i></p> <p>[Identify Applicable Standards below work product name in brackets]</p>	DM	CM	<p>Storage Location <i>(Provide sufficient information to locate and access the file(s))</i></p>	<p>Peer Review Requirements <i>(Formal, Informal, or Not Required)</i></p>
Requirements Summary List (RSL) or equivalent			<Enter location>	Formal
Project Plan [RDECOM PP Template, <enter date>]			<Enter location>	Informal
Estimates and Planning Data			<Enter location>	Informal
Project Budget			<Enter location>	Informal
Work Breakdown Structure [MIL-HDBK-881]			<Enter location>	Informal
Schedule			<Enter location>	Informal
Project Training Matrix and Records			<Enter location>	Not Required
Project Meeting Minutes			<Enter location>	Informal
Action Items			<Enter location>	Not Required
Status Reports – Briefings and Minutes (monthly/weekly reports WSARs, management reviews, IPRs, etc.)			<Enter location>	Informal
Technical Reviews (briefings, minutes, etc.)			<Enter location>	Informal
PA Audit Files (review/audit findings, checklists)			<Enter location>	Informal
PA Audit Corrective Action Plan (CAP) [PA Audit CAP Template, <enter date>]			<Enter location>	Informal

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<p>Work Products <i>(Table must be updated to add, delete, and revise information as applicable to the project. Insert X in type of control column (DM and/or CM) for each Work Product.)</i></p> <p>[Identify Applicable Standards below work product name in brackets]</p>	DM	CM	<p>Storage Location <i>(Provide sufficient information to locate and access the file(s))</i></p>	<p>Peer Review Requirements <i>(Formal, Informal, or Not Required)</i></p>
Project Measurement data			<Enter location>	Not Required
Risk Profiles			<Enter location>	Informal
Peer Review Documentation			<Enter location>	Not Required
Contractual Documentation (Market Surveys, IGCEs, Contracts, Monthly Reports, Invoices, etc.)			<Enter location>	Informal
Trade Study and/or Alternative Analyses			<Enter location>	Informal
Decision Analysis & Resolution Documents			<Enter location>	Informal
Causal Analysis & Resolution Documents			<Enter location>	Informal
Statements of Work			<Enter location>	Informal
Requirements			<Enter location>	Formal
Design			<Enter location>	Formal
Test			<Enter location>	Formal
Safety			<Enter location>	Informal
Engineering Analyses			<Enter location>	Formal
Test and Evaluation Master Plan			<Enter location>	Formal
Simulation Support Matrix			<Enter location>	Formal
< Add rows as needed for additional work products >			<Enter location>	

24 Simulation Support Planning

Describe the project’s intended use of modeling and simulation (M&S) throughout the system’s lifecycle. It should specifically address M&S application during concept refinement, development, testing, production, and operations and support, as appropriate for the current and pending phases of the project’s lifecycle {Ref DAG Sect 4.5.8}. Include the project’s strategy for managing the M&S activities for optimum cost-effectiveness and describe how the project will avoid duplication of efforts by reusing M&S resources. This section should also address M&S tool procurement, development, maintenance, data management, verification, validation, and

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accreditation. M&S tools should be included in Table 4 of the Engineering Environment section.

25 Risk Management Planning

The following guidance provides a general outline and requirements for Project Risk Management Planning. This can be included in this section, or included as an Appendix to the Project Plan.

Refer to RDECOM OSP Risk Recon Tool and FAQ sheet.

25.1 Risk Management Process

Risk management is an iterative process that is accomplished throughout the life cycle of a system. It is an organized method for continuously identifying and monitoring the risks; developing mitigation options; and selecting, planning, and implementing the appropriate risk mitigations.

Identify the risk management process to be implemented on this project Reference Environment section for tools to be used. {Refer to Risk Management Guide for DOD Acquisition}

25.2 Risk Identification & Profile

Provide the current Risk Profile that identifies all project risks (technical, programmatic, personnel, critical resources, etc.). This may be an attachment to this risk plan or a reference to a separate file or other project risk management tool. The Risk Profile should include priority, source, description, severity/risk exposure, impacts, handling method, measure and risk threshold, trigger, frequency of measure, date originated and date monitored for each risk. (Note: Risks with a high exposure or at least the top three risks will be reported, handled, and actively managed. Risk measures and thresholds, handling actions, and any change from the last review will be tracked for at least the top three risks and for all risks that exceed their thresholds.)

Identify any additional risk sources and descriptions not previously identified.

26 Measurement and Analysis

The following guidance provides a general outline and requirements for a Project Measurement Plan.

The measurement process gauges performance and effectiveness of the project to allow for quantitative analysis, understanding variation, and improved performance.

Measurement analysis activities discover deficiencies that should result in the application of corrective action or causal analysis and resolution.

Describe, as a minimum, the process for measuring cost, schedule and performance. Identify tools to be used in the Engineering Environment section.

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26.1 Technical Objectives

Describe the approach to identify and measure technical objectives related to the success of the project, the system, and system effectiveness.

For example:

- *Development Measures*
 - *Technical Performance Measures (TPM's)*
 - *Critical Technical Parameters (CTP's)*
 - *Measure of Effectiveness (MOEs)*
 - *Measure of Suitability (MOSs)*
 - *Measure of Performance (MOPs)*
 - *Key Performance Parameters (KPP)*
 - *Key System Attributes (KSA)*
- { Add Reference document links }

that indicate the following:

- *technical progress*
- *design maturity*
- *achievement of performance (include system, configuration item parameters, or both)*

Include a discussion of technical performance addressing:

- *measurement update frequency*
- *tracking depth*
- *response time to generate recovery plans*
- *planned profile revisions*
- *risks related to parameter descriptions*

26.2 Technical Analyses

Describe the intended measures of effectiveness (MOEs) and how they interrelate with each other. Also, describe the criteria for the selection of project measures to include measures of performance (MOPs) and measures of suitability (MOSs) to support the definition and verification of the system. The description should include the approach for all planned analyses.

These may include, but are not limited to:

- *system cost-effectiveness*
- *manufacturing*
- *verification*
- *distribution*
- *operational*
- *human engineering*
- *manpower*
- *personnel*

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- *training*
- *usability*
- *supportability*
- *safety and health hazards*
- *environmental*
- *lifecycle cost analysis*
- *Reliability*

Finally, describe the criteria used (performance requirements, lifecycle costs, etc), how the analytical results are integrated to develop a conclusion, and rationale for a technical solution.

27 Causal Analysis and Resolution

Describe the project's activities to identify and analyze causes of defects and other problems and take actions to remove or prevent them in the future. Activities include: (1) identification of project status, milestones, tasks or measurement thresholds which will trigger the project to investigate the causes of defects and other problems (2) status or data to be collected, (3) causal analysis of selected defects and other problems, (4) documentation of action proposals and (5) implementation of action proposals and evaluation of results.

28 Decision Analysis and Resolution

Provide an overview of the methods, tools, and specific systems analyses expected to be needed (e.g., hardware, software, human allocation, trade-off analyses, systems and cost effectiveness, cost benefit, and risk impact analyses). It should describe the studies planned for making decisions related to:

- *Stated requirements;*
- *Design;*
- *Project schedule;*
- *Functional and performance requirements;*
- *Function;*
- *Task; and*
- *Decision allocation among human, software, hardware, and lifecycle and design to cost.*

Describe any trade studies that have been and will be conducted, who did or will conduct them, how were they, or are to be, conducted to include a discussion of trades as part of a family-of-systems or system-of-systems solution, if applicable {Ref DAG Sect 4.3}, and who is responsible for making trade-off decisions and at what level in the organization that decision maker resides. Further, describe the intended use of criteria for decision-making and trade-off of alternative design solutions, including a description of technical objectives, criteria and weighting factors, and utility curves, as applicable.

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29 Corrective Action Tracking

Identify or detail the process by which corrective actions will be identified and tracked to closure within the project. A simple recovery plan format would normally specify the corrective action to be taken (may include known subordinate activities), person responsible for that correction, target milestones for the correction, dependencies, coordination requirements, agreements, and status.

30 Security

Describe the project’s security requirements and consider the following representative questions:

Major S&T Projects (formally known as Army Technology Objective – Demonstration (ATO-D)): Has Technology Protection Plan (TPP) been developed?

TPPs consist of a program review of key technologies containing classified military information or controlled unclassified information. An analysis of whether foreign cooperative interests exist, obtaining an Army Counterintelligence Center threat estimate and countermeasures implemented. If developed, reference TPP here.

Acquisition Program: Has the customer (e.g. PM) developed a Program Protection Plan (PPP)?

DoD 5000.2 requires that sensitive information and technology be identified early in the acquisition process and be protection from inadvertent or unauthorized disclosure. Details on how to prepare a PPP can be found in DoD 5200.39.

Classification Guide: Is or should the Technology be Classified and has a Security Classification Guide been developed and approved? Has the guide been developed in accordance with _____? (Refer to AR 380-5, Figure A1 for Classification Factors and Classifying Details.) Attach as an annex.

(Note: Work with security staff to define additional security requirements that need to be included in this template)

Contract Security Specifications: If Contractors are involved in the project, has a Contract Security Specification (DD 254) been issued? Has a contracts security specification guide been developed?

31 Data Rights

Provide overview of government and contractor data rights for the system to include what key technical information and data (capabilities, concept descriptions, system concepts definitions, operational requirements, performance requirements, concept of operations) will be developed.

Refer to AMC Guide for the Preparation of a Program Product Data Management Strategy

32 List of Acronyms

List the acronyms/abbreviations used in this project plan and their definitions.

Acronym

Definition

**Annex A (Project Plan Template) to RDECOM Policy Letter – Science and Technology (S&T) and
Research, Development and Engineering (RD&E) Systems Engineering (SE)**

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US Army Research Development and Engineering Command Chief Systems Engineers Steering Group Charter

Version 6.6



A. Introduction

The vast majority of identified future Soldier capabilities require integrated and consistent Systems Engineering (SE) solutions across multiple competencies to anticipate and exploit emerging technologies. To ensure the best possible oversight of the engineering process across the life cycle, the US Army Research, Development and Engineering Command (RDECOM) has established a strategic SE goal: Establish and develop an SE culture to integrate increasingly complex systems requirements, technologies, and capabilities.

B. Purpose

This charter establishes the vision, mission, membership, roles, responsibilities, accountabilities, authorities, and business rules for the RDECOM Chief Systems Engineers Steering Group (CSE SG).

C. Vision

Facilitate an RDECOM systems engineering enterprise, widely recognized for its leadership and expertise in the engineering of systems and systems of systems, to enable the Army to provide leading edge research, products, and services.

D. Mission

Create a consistent collaborative RDECOM systems engineering enterprise to improve technology development, transitions, engineering services, and integration by addressing all aspects of SE in the Acquisition Life Cycle.

The RDECOM SE enterprise will develop, provide, and sustain state-of-the-art, integrated and consistent solutions to meet the Army's and customer SE needs, today and tomorrow by virtue of the following goals:

- Establish an enterprise SE approach to enable interoperability and collaboration.
- Integrate and implement SE best practices to meet mission effectiveness and performance requirements and decrease acquisition life-cycle cost, technical, and operational risk.
- Research and recommend innovative SE methods, processes, and tools.
- Support the development of systems engineers. Promote training and energize the workforce to be fluent in SE.
- Create an environment where SE is a day-to-day practice for all engineers.



- Establish communications, relationships, and partnerships with Army Materiel Command (AMC), Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)), Program Manager/Program Executive Office (PMs/PEOs), Department of Defense (DoD), other government agencies, industry, and academia as the recognized Army center of excellence for SE.

E. Membership

The RDECOM CSE SG will be comprised of the Research, Development and Engineering Centers (RDECs) and Army Research Laboratory (ARL) CSEs and chaired by the RDECOM SE Director.

F. RDECOM CSE SG Roles, Responsibilities, Accountability, and Authority

RDECOM Executive Deputy to the Commanding General (EDCG): Will serve as the final decision authority on enterprise SE recommendations.

RDEC/ARL Directors: Will appoint and empower their respective CSE with the authority to speak and make decisions on behalf of their organization regarding SE matters.

RDECOM SE Director:

- (1) Will Chair the CSE SG meetings and activities.
- (2) Will decide on reference and briefing material and ensure it is archived for future reference by the CSE SG.
- (3) Will serve as the recommending authority on any decisions or issues that arise at CSE SG meetings and report to and seek approval from the RDECOM Board of Directors (BoD) on CSE SG pursuits and recommendations.
- (4) Will provide direction and guidance for RDEC/ARL initiatives and actions of the CSE SG.
- (5) Will represent RDECOM at all required external SE venues.
- (6) Will represent and advocate for the CSE SG issues and positions with RDECOM HQ senior leadership.



- (7) Will coordinate with RDECOM HQ Programs & Engineering (P&E) to ensure integrated SE and program management efforts.
- (8) Will vote to break any ties in voting and has the responsibility for acceptance and assurance of compliance of the CSE SG's recommendations.

RDEC/ARL CSE:

- (1) Will inform and advise respective Directors on CSE SG matters and seek approval when necessary.
- (2) Will be responsible for coordinating and integrating RDECOM SE policies within the respective RDEC/ARL.
- (3) Will serve as organizational SE champion.
- (4) Will provide organization's positions and make decisions on CSE SG topics and issues.

RDECOM CSE SG:

- (1) Will establish and direct, as required, sub-elements (e.g. working groups) to facilitate completion of assigned tasks.
- (2) Will ensure appropriate coordination both within and external to RDECOM.
- (3) Will maintain the RDECOM Process Asset Library and the RDECOM Organizational Standard Process.

G. Business Rules

Meetings, Telecons, and Taskings

- (1) The RDECOM CSE SG will meet face to face on at least a quarterly basis and will conduct virtual meetings as needed. Minutes and captured action items from the CSE SG meetings will be sent out via email as well as posted to the RDECOM CSE SG collaborative site.
- (2) The RDECOM CSE SG will conduct weekly SE telecons.



- (3) The RDECOM CSE SG will decide on the meeting agendas and will maintain a running calendar to ensure meetings/voting events do not coincide with other major events for the CSEs.
- (4) RDECOM CSE SG will utilize a collaborative environment for storing reference documents. The RDECOM SE Director's Office will be responsible for configuration control.
- (5) The RDECOM Tasker System will be used for SE-related taskings.

Interfaces

- (1) The RDECOM SE enterprise implementation guidelines and policies will require RDECOM BoD approval.
- (2) The RDECOM CSE SG will invite representatives from other government offices and agencies, industry, professional associations, and academia as appropriate to support SE-related activities impacting RDECOM on an as needed basis.
- (3) All established sub-elements will develop a charter that must be approved by the RDECOM CSE SG.
- (4) The recommendations of the sub-element shall be reported back through the RDECOM CSE SG for discussion/concurrence.

Voting

- (1) Each RDEC/ARL CSE has voting authority on decisions. Each RDEC/ARL CSE has one vote. If a RDEC/ARL CSE is absent, either an alternate shall be designated by the respective CSE to vote or an absentee vote shall be provided. Voting members (whether primary or alternate) must be Department of the Army Civilians or Soldiers.
- (2) RDEC/ARL CSEs will be allowed adequate time, decided by the RDECOM SE Director based on complexity and impact, to coordinate an SE matter requiring a CSE SG vote with the respective RDEC/ARL and to obtain the Director's position prior to voting events.
- (3) The RDECOM SE Director will consult with the RDECOM EDCG for the final decision on voting events.



H. Charter Changes

- (1) Proposals for changes to this charter will be presented to the RDECOM CSE SG for consideration and concurrence.
- (2) Charter changes that are accepted will be proposed by the RDECOM SE Director to the RDECOM BoD.
- (3) The RDECOM EDCG will make final approval on proposed changes to the Charter.
- (4) This charter will be reviewed at a minimum of every twelve (12) months and updated as needed.

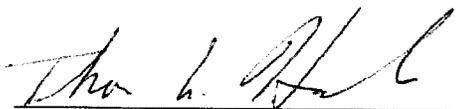
I. Effective Date

This CSE SG Charter will be effective on the date it is signed by the RDECOM EDCG.

J. Approvals

Signatures and Date Approved

Director SE, RDECOM



Director, AMRDEC

Director, ARDEC

Director, ARL

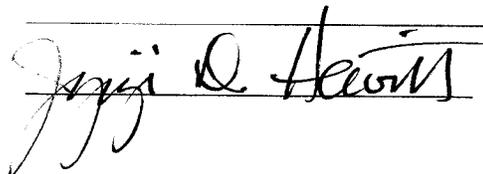
Director, CERDEC

Director, ECBC

Director, NSRDEC

Director, TARDEC

EDCG, RDECOM





H. Charter Changes

- (1) Proposals for changes to this charter will be presented to the RDECOM CSE SG for consideration and concurrence.
- (2) Charter changes that are accepted will be proposed by the RDECOM SE Director to the RDECOM BoD.
- (3) The RDECOM EDCG will make final approval on proposed changes to the Charter.
- (4) This charter will be reviewed at a minimum of every twelve (12) months and updated as needed.

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Director, ARDEC

John F. Roberts III

Director, ARL

Director, CERDEC

Director, ECBC

Director, NSRDEC

Director, TARDEC

EDCG, RDECOM



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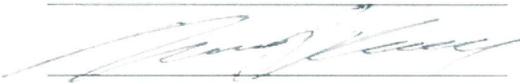
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Director, AMRDEC	_____
Director, ARDEC	_____
Director, ARL	
Director, CERDEC	_____
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EDCG, RDECOM	_____



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Director, AMRDEC

Director, ARDEC

Director, ARL

Director, CERDEC

*Approved
Date discussed*

Director, ECBC

Director, NSRDEC

Director, TARDEC

EDCG, RDECOM



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Director, AMRDEC	_____
Director, ARDEC	_____
Director, ARL	_____
Director, CERDEC	_____
Director, ECBC	_____
Director, NSRDEC	_____
Director, TARDEC	_____
EDCG, RDECOM	_____

Joseph J. ... WF2315



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Director SE, RDECOM	_____
Director, AMRDEC	_____
Director, ARDEC	_____
Director, ARL	_____
Director, CERDEC	_____
Director, ECBC	_____
Director, NSRDEC	<u>Patrick J. Bales 27 Feb 15</u>
Director, TARDEC	_____
EDCG, RDECOM	_____



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Director, NSRDEC

Director, TARDEC

Paul D. Rogers

EDCG, RDECOM
