

IPS Element	Competency	Subcompetency #1	Subcompetency #2	Subcompetency #3	Subcompetency #4	Subcompetency #5
Sustaining Engineering	SEN - Understand how sustaining engineering integrates and impacts among other product support elements and program functional activities in all life cycle phases and in the performance based outcome environment.	Understand applicable Title X statutory requirements, other laws and DoD policy governing sustaining engineering activities.	Understand how sustaining engineering impacts and is impacted by each Product Support Element.	Understand how sustaining engineering impacts and is impacted by each program functional area.	Understand how program performance based metrics impact and are impacted by sustaining engineering requirements.	Understand and develop sustaining engineering inputs to the acquisition process milestone deliverables.
Sustaining Engineering	SEN - Apply processes and analysis to address and recognize solutions for procedural, operational and technical in-service problems such as deficiency reports and operational hazards.	Understand reliability functional analysis practices to include the development of reliability models, reliability block diagrams, Failure Modes & Effects Criticality Analysis (FMECA), fault-tree analysis, etc.	Lead efforts to ensure required design changes are correctly implemented to resolve operational issues to include technology insertion, engineering dispositions, corrosion, and technical manual / technical order updates.	Understand the range of supportability analysis tools and practices, includes deficiency reporting, forecasting, obsolescence planning, modeling and simulation, and analysis supporting technology insertion and continuous modernization.	Understand and apply Continuous Process Improvement (CPI) activities during Sustainment	Evaluate the activities and results of sustaining engineering, such as reliability growth programs, to directly support weapon systems requirements and program performance based outcomes.
Sustaining Engineering	SEN - Ensure sustaining engineering effectiveness is planned, executed and measured.	Establish feedback sourcing and assess the resulting information on operational usage profile changes, safety condition changes, and observed reliability and maintainability trends during operations.	Establish a Vendor Reliability Program, a Supplier Assurance Program, and other practices to minimize risk from the supply base.	Implement the Diminishing Manufacturing Sources and Material Shortages (DMSMS) and obsolescence weapon system plan to ensure early identification of materials and suppliers at risk.	Understand the linkage between sustaining engineering, field services, updates to the maintenance plan, training and optimization of life cycle cost.	Source and evaluate commercial sources of sustaining engineering capabilities.
Sustaining Engineering	SEN - Implement sustaining engineering results to drive design changes and technology insertion to improve program performance based outcomes.	Lead government and industry sponsored forums exploring new technologies and products to manage Reliability, Availability, Maintainability, Testability and Suitability (RAM-TS) issues.	Evaluate, support or sponsor R&D initiatives to improve sustaining engineering technologies and processes and to meet the service life design objectives.	Establish help desks and response teams to address problems and issues during the weapon system life cycle.	Apply and communicate the results of technical advancement groups into system innovation for improved sustainment.	Evaluate and apply technologies and processes at their appropriate maturity and readiness level to optimize design interface initiatives.

<p>Sustaining Engineering</p>	<p>SEN - Apply sustaining engineering principles and tools to engineering disposition activities, i.e. technical manual and order updates, repair or upgrade vs. disposal or retirement, and maintenance evaluation processes.</p>	<p>Understand and apply technical standards best practices to sustaining engineering.</p>	<p>Implement best practices to collect and evaluate readiness information as a preventive measure rather than in response to failures, i.e. Condition Based Maintenance (CBM+), Reliability Centered Maintenance (RCM), Total Asset Visibility (TAV), and Modeling Tools for forecasting.</p>	<p>Implement sustaining engineering activities as part of an ongoing life cycle cost reduction effort.</p>	<p>Implement an enterprise level integrated management approach, to include test and configuration management, to weapon system changes as a result of modifications, upgrades, material improvements, etc.</p>	
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