

## **Training Objectives and Competencies for the Project Manager – Senior/Expert Level by Process or Course of Action**

The information covered in this grouping includes:

- ◆ Management Process
- ◆ Systems Engineering
- ◆ Test and Evaluation (T&E)
- ◆ Life Cycle Logistics (LCS)
- ◆ Contracting
- ◆ Business, Cost Estimating and Financial Management
- ◆ Leadership/Professional

Listed below is each of the processes or course of action and the supporting objectives and core competencies.

## Management Process (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the concepts presented at the Project Manager -- Entry/Apprentice Level.



As a reminder, the Project Manager – Entry/Apprentice Level Management Process specifically consisted of knowledge of:

- ◆ Requirements Development Process
- ◆ Concept Selection Process
- ◆ Technology Development Process
- ◆ Core Management Skills and Process
- ◆ Total Ownership Cost (OMB A-94)
- ◆ Risk and Opportunity Management
- ◆ Market Research
- ◆ Communications Management
- ◆ Working Groups and Teams

## Management Process Objectives

Some key objectives for the Management Process include:

- ◆ Manage a department/agency effort that identifies, assesses, and prioritizes needed mission-oriented capabilities
- ◆ Offer recommendations in support of agency selection of material/non-material course of action in order to satisfy the capability gap
- ◆ Evaluate and propose a Technology Development Strategy that flows based on the completed analysis of alternatives and selected material concepts, e. g., draft acquisition approach, support of prototypes, draft plan for development increments, etc.
- ◆ Validate a limited number of key performance parameters that are critical to the development of an effective capability

- ◆ Evaluate requirements trade-offs including international issues, peer-peer relations with other programs and constraints, performance issues, joint users and post fielding sustainment
- ◆ Coordinate final preparation of a comprehensive program specification or Statement of Objectives or Statement of Work that fully and correctly defines the program, addressing roles and missions of the government and contractor
- ◆ Manage the development of the program and define program scope, application of National Environment Policy Act, safety and occupational health and security measures
- ◆ Establish and manage a risk/opportunity management process which includes planning, assessment (identification and analysis), handling, and monitoring

**Management Process (Senior/Expert) Core Competencies and Proficiencies**

<b>Process</b>	<b>Competencies and Proficiencies</b>
<u>Management Process</u>	Recognition of government-wide and agency-specific acquisition policies that support assigned missions and functions; understanding of how agency acquisition professionals balance risk; understanding of the many factors that influence cost, schedule, and performance; attention to lessons learned; understanding of metrics needed to manage programs that deliver quality, affordable, supportable, and effective systems/products.
<u>Requirements Process</u>	<ul style="list-style-type: none"> <li>✓ Manage a departmental/agency effort aimed at identifying, assessing and prioritizing needed mission oriented agency capabilities such as overseeing a regularly scheduled or special functional needs analysis (a study of agency needs vs. capability gaps). Coordinate with potential users.</li> <li>✓ Initiate and evaluate, if applicable, studies of different non-system specific, or activity specific, materiel and non-materiel approaches (concepts) to provide a required capability, assessing in an operational context the performance</li> </ul>

Process	Competencies and Proficiencies
<p><u>Concept Selection Process (Pre-program)</u></p>  <p><b>NOTE:</b> Concept Selection is selecting the idea(s) which best satisfy the program design.</p>	<p>characteristics of alternatives.</p> <ul style="list-style-type: none"> <li>✓ Track and evaluate, if applicable, an analysis of the alternative concepts so as to reduce the number and refine the concept(s) to better meet the mission capability gap. Issues reviewed include new or expanded studies of performance, effectiveness, suitability, critical technologies, estimated costs, sensitivities, risks, competition, innovation and assumptions; apply OMB A-94 as appropriate.</li> <li>✓ Offer recommendations, as appropriate, in agency selection of materiel/non-materiel course of action relative to satisfying the capability gap.</li> <li>✓ Oversee the establishment of performance measures and associated metrics required to evaluate a possible solution.</li> <li>✓ Offer recommendations, as appropriate, on a preferred system concept (if the preferred concepts includes a materiel solution) that should be continued into Technology Development and may correct the deficiency, satisfy a capability gap, or incorporate a new technology that results in the development, acquisition, procurement and/or deployment of a new item.</li> <li>✓ Evaluate and propose, if applicable, to higher authority, as required, a <u>Technology Development Strategy</u> that flows from the completed analysis of alternatives and selected materiel concepts that may include: <ul style="list-style-type: none"> <li>▪ Draft acquisition approach</li> <li>▪ Draft plan for development increments</li> <li>▪ Estimates of the number of prototypes</li> <li>▪ Support of prototypes</li> <li>▪ Performance goals that may justify more prototypes</li> <li>▪ Strategy to manage research and development</li> <li>▪ Draft description of first technology</li> </ul> </li> </ul>

Process	Competencies and Proficiencies
	<p>demo</p> <ul style="list-style-type: none"> <li>▪ Draft test plan with evaluation criteria</li> <li>▪ Risk management</li> <li>▪ Draft cost, schedule and possible source of funding</li> </ul>
<p><u>Technology Development Process (Pre-program)</u></p>	<ul style="list-style-type: none"> <li>✓ Evaluate, if applicable, together with the user, “customer needs” into the following program system requirements: <ul style="list-style-type: none"> <li>▪ Performance parameters objectives and thresholds (the difference being Trade Space)</li> <li>▪ Affordability constraints</li> <li>▪ Scheduling constraints</li> <li>▪ Technical constraints</li> <li>▪ Environmental issues</li> <li>▪ Joint, combined, and interagency interoperability</li> <li>▪ Devise a method to evaluate and control requested/directed changes in requirements while responding to agency policies on meeting requirements and the documents that identify the capability gap(s) in need of a materiel solution, and employing the user’s capabilities development document(s) to support pending program initiation, refine the integrated architecture, and clarify how the program will lead to the needed capability.</li> </ul> </li> <li>✓ Validate a limited number of key performance parameters that are critical to the development of an effective capability.</li> <li>✓ Derive, if applicable, an acquisition program baseline from the user’s performance and schedule requirements, and best estimates of total program cost consistent with projected funding.</li> <li>✓ Initiate, if applicable, oversee and later evaluate technology developments and demonstrations (<u>in coordination with systems engineering and test and evaluation personnel/organizations</u>)</li> </ul>

Process	Competencies and Proficiencies
	<p>needed for the capability under consideration, concluding with a determination as to the maturity of the technology and preparation of a system performance specification.</p> <ul style="list-style-type: none"> <li>✓ Evaluate requirements trade-offs, including:                             <ul style="list-style-type: none"> <li>▪ International issues (treaties, laws, agreements)</li> <li>▪ Peer-peer relations with other programs and constraints thereon in family-of-systems</li> <li>▪ Performance issues (organizational/political context)</li> <li>▪ Joint users</li> <li>▪ Post fielding sustainment</li> </ul> </li> <li>✓ Manage the preparation of an <u>Acquisition Strategy</u> (flowing from the Technology Development Strategy), if applicable, with full stakeholder support, that considers an evolutionary acquisition approach, spiral technology insertion, inter-program dependencies, useful increments or block upgrades, that consider real-world development processes in terms of flexibility for future contract application, and are balanced with the realities of program execution.</li> <li>✓ Conduct program coordination with users, milestone decision authority, industry, and other programs (same, other agencies, and international), etc.</li> <li>✓ Formally initiate, as authorized, an acquisition program or other program as appropriate employing OMB A-94 analysis and the OMB Program Assessment Rating Tool.</li> </ul>
<p><u>Market Research (including Socio-economic Considerations)</u></p>  <p><b>NOTE:</b> Market research is the process of systematic gathering, recording and analyzing of data about</p>	<p>Oversee application of FAR Part 10 and 12 (if applicable), while:</p> <ul style="list-style-type: none"> <li>✓ Overseeing the application of a business strategy to market research</li> <li>✓ Overseeing the application of dual-use technologies to market research</li> <li>✓ Validating market research (using socioeconomic considerations)</li> </ul>

<b>Process</b>	<b>Competencies and Proficiencies</b>
<p><a href="#">customers</a>, <a href="#">competitors</a> and the <a href="#">market</a>. Market research can help create a <a href="#">business plan</a>, launch a new product or service, fine tune existing products and services, expand into new markets etc.</p>	<p>throughout) of commercial items, including international sources.</p>
<p><u>Prepare Requirements and Support Documentation</u></p>	<p>Participate in pre-award actions required by FAR Subpart 7.1 Acquisition Planning, and the remainder of FAR Parts 1-12 etc., considering key and complex contract terms and conditions for the solicitation. This includes the program manager striving to ensure program goals are understood by the PCO, potential competing Contractors/Sub-contractors, and that supporting documentation is likely to produce agreements that will facilitate any future contract. Topic areas requiring strong emphasis in terms of <u>continuity</u>, <u>coordination</u>, and <u>interfaces</u> will include those potential contracts with:</p> <ul style="list-style-type: none"> <li>✓ A multiple incentive structure</li> <li>✓ A SOW or SOO that may have unintended nuances</li> <li>✓ A complex CLIN structure</li> <li>✓ Complex provisions for technical execution</li> <li>✓ Complex provisions for executing contract funding</li> <li>✓ Complex provisions that will impact timely and accurate reporting of government funds expenditure</li> <li>✓ Unclear provisions for and the content of possible follow-on contracts as relates to all the above</li> </ul>
<p><u>Prepare and Issue Solicitation</u></p>	<ul style="list-style-type: none"> <li>✓ Coordinate final preparation of a comprehensive program specification and Statement of Objectives (SOO) or Statement of Work (SOW) that fully and correctly defines the program, addressing roles and missions of the government and contractor.</li> <li>✓ Participate in pre-award policies, FAR (if</li> </ul>

<b>Process</b>	<b>Competencies and Proficiencies</b>
	<p>applicable) Parts 5 Publicizing Contract Actions, 13 Simplified Acquisition Procedures and 14, Sealed Bidding, etc.</p> <ul style="list-style-type: none"> <li>✓ Assess pre-solicitation options to include the use of draft solicitation, industry days and one-on-one sessions.</li> </ul>
<p><u>Core Management Skills and Processes</u></p>	<ul style="list-style-type: none"> <li>✓ Manage the development of the program and define program scope, application of National Environmental Policy Act (NEPA), safety, and occupational health (ESOH), and security measures.</li> <li>✓ Coordinate a plan for total life cycle system management (Integrated Master Plan) addressing phased inputs, outputs, deliverables for each phase, and internal and external program technical reviews, Congressional processes, audits and how various program functions will be performed and managed. Employ as needed or consider: <ul style="list-style-type: none"> <li>▪ A tradeoff of cost, schedule and performance.</li> <li>▪ Time-phased hardware and financial requirements</li> <li>▪ A method for managing and planning for modifications</li> <li>▪ Cycle-time reduction techniques.</li> <li>▪ WBS, Life Cycle Cost Estimates, configuration management</li> <li>▪ The management of small programs within the larger program</li> <li>▪ The acquisition strategy</li> <li>▪ Applying techniques for breaking program into assigned and prioritized tasks.</li> <li>▪ Applying techniques for man loading of contract cost and schedule.</li> <li>▪ Program software and IM/IT issues/planning.</li> <li>▪ Ensure effective linkage to WBS and EVM.</li> </ul> </li> <li>✓ Oversee preparation/documentation of an integrated master schedule, employing schedule network tools and techniques, work loading methods, and using agency</li> </ul>

Process	Competencies and Proficiencies
	<p>program management software to produce a schedule in one or more desired formats. Inputs to this process may include, e.g.,</p> <ul style="list-style-type: none"> <li>▪ Activity duration estimates</li> <li>▪ Work Breakdown Schedule</li> <li>▪ Program baseline</li> <li>▪ Resource calendars</li> <li>▪ Resource requirements</li> <li>▪ Activities parameters</li> <li>▪ Program integrated master plan, etc.</li> </ul> <ul style="list-style-type: none"> <li>✓ Supervise/prepare program and contract WBSs structuring/tailoring the WBS to the program and applying elements of scheduling, risk management, cost estimating, contracting, EVM, etc.</li> <li>✓ Oversee technical reviews as a tool for coordination and the identification of risks. Stress event-based and not schedule driven actions.</li> <li>✓ Coordinate with PCO on contracting processes, strategy, agreements, negotiations, etc.</li> <li>✓ Conduct financial planning and execution reviews.</li> </ul>
<p><u>Life Cycle Cost (Total Ownership Cost) Management (OMB A-94)</u></p>  <p><b>NOTE:</b> A life cycle cost analysis calculates the <u>cost</u> of a <u>system</u> or <u>product</u> over its entire life span; Total cost of ownership (TCO) is a financial estimate designed to help consumers and enterprise managers assess direct and indirect costs related to the purchase of any capital investment, such as (but not limited to) computer software or hardware. A TCO assessment ideally offers a final statement reflecting not only the cost of purchase but all aspects in the</p>	<p>Oversee an estimate of Total Ownership Cost (TOC), in agency format, revisiting and ensuring that it is consistent with prior OMB A-94 and PART analysis as appropriate, considering full program scope in applying cost estimating techniques/tools to cases involving management decisions, e.g., contractor versus government logistics support:</p> <ul style="list-style-type: none"> <li>✓ Critique estimating techniques/tools for developing rough cost estimates (Engineering, Estimates, Parametric, etc.)</li> <li>✓ Critique cost estimating techniques/tools to 1.) Estimates of ECP and modification costs, 2.) Estimate of program cost, and 3.) Life Cycle Cost/TOC estimation for program.</li> <li>✓ Justify an associated risk level for all cost estimates.</li> <li>✓ Define impact of various reduced funding</li> </ul>

Process	Competencies and Proficiencies
<p>further use and maintenance of the equipment, device, or system considered.</p>	<p>profiles.</p> <ul style="list-style-type: none"> <li>✓ Critique costs within each applicable appropriation.</li> <li>✓ Judge all assumptions, ensuring that they are valid.</li> <li>✓ Evaluate cost policies and practices.</li> <li>✓ Construct a business case analysis applying cost benefit trade-offs to program.</li> <li>✓ Select appropriate indices for then year and constant year estimates.</li> </ul>
<p><u>Risk and Opportunity Management</u></p>  <p><b>NOTE:</b> Risk management is the process of <a href="#">measuring</a>, or <a href="#">assessing risk</a>, and developing <a href="#">strategies</a> to manage identified risk.</p>	<ul style="list-style-type: none"> <li>✓ Establish and manage a risk/opportunity management process which includes planning, assessment (identification and analysis), handling, and monitoring, all to be integrated and continuously applied throughout the program. Other management actions include: <ul style="list-style-type: none"> <li>▪ Judging risk events</li> <li>▪ Question and report program risk status during various situations</li> <li>▪ Integrate risk management into program manager routine practices</li> <li>▪ Identify and evaluate opportunities for cost reduction/avoidance and manage to fruition</li> </ul> </li> <li>✓ Apply decision analysis in the selection of risk handling options/opportunities and fold those options into a detailed Integrated Master Plan and Integrated Master Schedule (IMP/IMS). <ul style="list-style-type: none"> <li>▪ Assesses and prioritizes risk events to be handled.</li> <li>▪ Evaluates mitigation strategies based on risk assessments</li> <li>▪ Evaluates mitigation strategy performance</li> <li>▪ Evaluate application of critical chain management tools and techniques to balance risks with available resources</li> </ul> </li> <li>✓ Develop an organizational structure/method to track and manage risk/opportunities; using the program WBS, develop a risk management organization for the program including</li> </ul>

Process	Competencies and Proficiencies
	<p>contractor representatives.</p> <ul style="list-style-type: none"> <li>✓ Specify how risk/opportunity management program is to be used within the management of the program; ensuring staff select/apply risk management software accordingly, including such activities as tracking, rating and handling risk/opportunity events, identifying the program critical path, and determining the probabilities of program completion dates and costs.                             <ul style="list-style-type: none"> <li>▪ Choose a risk management software</li> <li>▪ Evaluates schedule, cost and technical data to determine critical risk nodes</li> <li>▪ Evaluate schedule analysis, e.g., critical path/slack time</li> </ul> </li> </ul>

## Systems Engineering (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the application of the scientific, management, engineering and technical skills used in the performance of systems planning, research and development.

### Systems Engineering Objectives

Some key objectives for Systems Engineering include:

- ◆ Develop an organizational structure/method to track and manage risk/opportunities
- ◆ Oversee and appraise a plan for Technical Data Management consisting of disciplined processes and systems
- ◆ Manage a Requirements Development process for working with the user to establish and refine operation needs, attributes, performance parameters, trade-offs and constraints
- ◆ Oversee the process for obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements
- ◆ Oversee a process for monitoring the implementation effort that actually yields the lowest level system elements in the system hierarchy

### Systems Engineering (Senior/Expert) Core Competencies and Proficiencies

Process	Competencies and Proficiencies
<p><u>Technical Management Process</u></p>	<ul style="list-style-type: none"> <li>✓ Manage and appraise Decision Analysis methods that will provide the basis for evaluating and selecting alternatives for decision making. Decision Analysis involves selecting the criteria for the decision and the methods to be used in conducting the analysis.</li> <li>✓ Oversee, prepare and apprise Technical Plans that will ensure the systems engineering processes are applied properly throughout a system's life cycle consistent with the Systems Engineering Plan.</li> <li>✓ Oversee a plan for Technical Assessment that measure technical progress and the effectiveness of plans and requirements. Activities within Technical Assessment include those associated with <a href="#">Technical</a></li> </ul>

Process	Competencies and Proficiencies
	<p><a href="#">Performance Measurement</a> and the conduct of technical reviews.</p> <ul style="list-style-type: none"> <li>✓ Supervise a requirements management process that provides traceability back to user-defined capabilities.</li> <li>✓ Manage Comprehensive Risk/Opportunity Management plan and methods applicable to a systems engineering context that examines the risks of deviating from the program plan. It will examine all aspects of the program and their relationships. The plan and methods should integrate design (performance) requirements with other life cycle issues such as manufacturing, operations, <a href="#">environment, safety, and occupational health considerations</a>, and support.</li> <li>✓ Oversee Configuration Management methods and best practices to establish and maintain consistency of a product's attributes with its requirements and product configuration information.</li> <li>✓ Oversee and appraise a plan for Technical Data Management consisting of the disciplined processes and systems used to plan for, acquire, access, manage, protect, and use data of a technical nature to support the total life cycle of the system.</li> <li>✓ Oversee a process for Interface Management, including the ability to trace system requirements through the software allocation architecture that will ensure interface definition and compliance among the elements that compose the system; as well as with other systems with which the system or system elements must interoperate. Interface management control measures, e.g., an interface matrix, may ensure that all internal and external interfaces and requirement changes are properly documented in accordance with the configuration management plan and</li> </ul>

Process	Competencies and Proficiencies
	<p>communicated to all affected configuration items.</p>
<p><u>Technical Process</u></p>	<ul style="list-style-type: none"> <li>✓ Manage a Requirements Development process for working with the user to establish and refine operational needs, attributes, performance parameters, trade-offs, and constraints that flow from the needed capabilities, and then ensure that all relevant requirements are addressed. Together with the user, the program manager should translate "customer needs" into the following program and system requirements:               <ul style="list-style-type: none"> <li>▪ Performance parameter objectives and thresholds</li> <li>▪ Affordability constraints</li> <li>▪ Scheduling constraints</li> <li>▪ Technical constraints</li> </ul> </li> <li>✓ Oversee the process of obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements (e.g., functional, behavioral, temporal). From logical solution sets, oversee the allocation of performance parameters and constraints that then define derived technical requirements to be used for the system design</li> <li>✓ Oversee and appraise a process for monitoring and selecting Design Solution that translates the outputs of the Requirements Development and Logical Analysis processes into alternative design solutions and selects a final design solution. The alternative design solutions include:               <ul style="list-style-type: none"> <li>▪ People, products, and process entities</li> <li>▪ Related internal and external interfaces</li> </ul> </li> <li>✓ Oversee a process for monitoring the Implementation effort that actually yields the lowest level system elements in the system hierarchy. The system element is made, bought, or reused. Making it involves the hardware fabrication processes of forming, removing, joining,</li> </ul>

<b>Process</b>	<b>Competencies and Proficiencies</b>
	<p>and finishing; or the software processes of coding, etc. If implementation involves a production process, a manufacturing system is required to be developed using these same technical and technical management processes.</p> <ul style="list-style-type: none"> <li>✓ Oversee a process for monitoring the integration program of incorporating the lower level system elements into a higher-level system element in the physical and logical architecture. The plan or strategy for the Integration process, including the assembly sequence, may impose constraints on the design solution.</li> </ul>

### Test and Evaluation (T&E) (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the concepts presented at the entry/apprentice level.



As a reminder, the Project Manager – Entry/Apprentice Level Test and Evaluation (T&E) process includes the recognition of efficient and cost effective methods for planning, monitoring, conducting and evaluating tests of prototype, new or modified systems equipment or materials.

These methods can include the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to the requirements and to develop metrics that demonstrate system success or failure.

### Test and Evaluation Objectives

Some key objectives for Test and Evaluation include:

- ◆ Oversee a comprehensive Test and Evaluation (T&E) program including Modeling and Simulation
- ◆ Oversee a comprehensive Test and Evaluation Strategy (TES)
- ◆ Critique realistic test or OT&E program that will determine the operational effectiveness and suitability of a system under realistic operational conditions

### Test and Evaluation (T&E) (Senior/Expert) Essential Core Competencies and Proficiencies

Process	Competencies and Proficiencies
<u>Test and Evaluation (T&amp;E)</u>	Recognition of efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of prototype, new, or modified systems equipment or materiel, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure.

<b>Process</b>	<b>Competencies and Proficiencies</b>
<u>Integration of T&amp;E</u>	Oversee a comprehensive T&E program including Modeling & Simulation.
<u>Test and Evaluation Strategy (TES)</u>	Oversee a comprehensive Test & Evaluation Strategy (TES) by the completion of a Concept Refinement Phase and prior to initiation of a Technology Development Phase that includes security and describes, in as much detail as possible, the risk reduction efforts across the range of program activities that will ultimately produce a valid evaluation of operational effectiveness, suitability, and survivability before full-rate production and deployment. The TES should evolve into the Test & Evaluation Master Plan (TEMP).
<u>Realistic or Operational Test and Evaluation (OT&amp;E)</u>	<ul style="list-style-type: none"> <li>✓ Critique realistic test or OT&amp;E program that will determine the operational effectiveness and suitability of a system under realistic operational conditions. The testers should use production or production representative articles (if applicable) for the dedicated phase of OT&amp;E that supports the full-rate production decision (if applicable).</li> <li>✓ Recognition of performance-based logistic efforts that optimize total system life cycle availability, supportability, and reliability/maintainability while minimizing cost, the logistic footprint, and interoperability.</li> </ul>

## Life Cycle Logistics (LCS) (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the concepts presented at the Project Manager -- Entry/Apprentice Level.



As a reminder, the Project Manager – Entry/Apprentice Level Life Cycle Logistics process includes the recognition of performance-based logistic efforts that optimize total system life cycle availability, supportability, and reliability/maintainability while minimizing cost and logistic footprint, and interoperability.

### Life Cycle Logistics Objectives

Some key objectives for Life Cycle Logistics include:

- ◆ Examine and implement appropriate innovative, alternative logistics support practices including best public sector and commercial practices and technology solutions
- ◆ Oversee logistic risk mitigation issues and analyses early in the system development process
- ◆ Oversee, as appropriate, statutory guidance/law and Title 10 direction regarding organic depot support
- ◆ Oversee a module open systems approach (MOSA) where interoperability is a key LCL facilitator

### Life Cycle Logistics (LCS) (Senior/Expert) Essential Core Competencies and Proficiencies

Process	Competencies and Proficiencies
<u>Life Cycle Logistic (LCL) Management, Product Support and Interoperability</u>	<ul style="list-style-type: none"> <li>✓ Examine and implement appropriate, innovative, alternative logistics support practices, including best public sector and commercial practices and technology solutions. Establish logistics support program goals for cost, customer support, performance parameters, spares</li> </ul>

Process	Competencies and Proficiencies
	<p>support and part obsolescence over the program life cycle. Address installation/facility requirements, location, new or existing. Include as part of the Acquisition Strategy a program manager developed fielding/sustainment strategy for Life Cycle Product Support in a supply chain context.</p> <ul style="list-style-type: none"> <li>✓ Oversee a modular open systems approach (MOSA) where interoperability is a key LCL facilitator, which allows the program manager to take advantage of shared government-wide capabilities in designing and implementing a product support strategy. Thus, explicitly consider the long-term potential of Acquisition and Cross-Servicing Agreements (ACSAs).</li> <li>✓ Oversee logistic risk mitigation analyses early in the system development process to reduce the required resources and overall life cycle costs.</li> <li>✓ Oversee, as appropriate, statutory guidance/law and Title 10 direction regarding organic depot support (e.g., 50/50 law, core workload, etc.). Include organic depot planning in budget plans and sustainment acquisition strategies. Address contractor support considerations.</li> <li>✓ Oversee materiel management actions involving the coordination of production, inventory, location, and transportation of programs items of materiel (and associated information and financial transactions) among the participants in a supply chain to achieve optimum readiness among organizations employing a system.</li> </ul>

## Contracting (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the concepts presented at the Project Manager -- Entry/Apprentice Level.



As a reminder, the Project Manager – Entry/Apprentice Level Contracting includes the supervision, leadership and management processes/procedures involved in the:

- ◆ Acquisition of supplies and services, construction, research and development
- ◆ Acquisition planning to include performance-based considerations
- ◆ Cost and price analysis
- ◆ Solicitation and selection of sources
- ◆ Preparation, negotiation and award of contracts
- ◆ All phases of contract administration
- ◆ Termination options and processes for closeout of contracts
- ◆ Legislation, policies, regulations and methods in contracting, and business and industry practices with particular emphasis on:

- Participation in determination of contract approach
- Development of performance-based solutions
- Preparation of requirements and supporting documentation
- Participating in source selection
- Management of contracting performance and contract administration

## Contracting Objectives

Some key objectives for Contracting include:

- ◆ Oversee (teamed with a warranted contracting officer) a process where the efforts of the program manager, PCO, etc. is integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost

- ◆ Assess application of source selection criteria including risk analysis methods, FAR Part 15/15.3 (Contracting by Negotiation/Source Selection, etc.
- ◆ Participate in the formulation of a source selection plan that allows for best value selection from a competitive solicitation
- ◆ Support contract administrative actions, FAR Part 42 (Contract Administration and Audit Services) while addressing ‘base-lining” the contract
- ◆ Oversee application of management actions required of agency program managers when engaged in acquisition of services

**Contracting (Senior/Expert) Essential Core Competencies and Proficiencies**

<b>Process</b>	<b>Competencies and Proficiencies</b>
<u>Contracting</u>	Recognition of the supervision, leadership and management processes/procedures involving the acquisition of supplies and services, construction, research and development; acquisition planning to include performance-based considerations; cost and price analysis; solicitation and selection of sources; preparation, negotiation, and award of contracts; all phases of contract administration; termination options and processes for closeout of contracts; legislation, policies, regulations, and methods used in contracting, and business and industry practices.
<u>Contract Approach</u>	Working with a warranted contracting officer, oversee a process by which the efforts of the program manager and PCO and all other personnel responsible for an acquisition are integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. This includes developing the overall strategy for managing the acquisition, coordination and development of the acquisition strategy, including support of the exit

Process	Competencies and Proficiencies
	<p>criteria for each acquisition phase.</p> <p>A. A business partnership should be developed between the program manager and the PCO with emphasis on building a successful acquisition strategy leading to program success through:</p> <ul style="list-style-type: none"> <li>✓ Appropriate D&amp;F actions</li> <li>✓ Identifying interagency needs</li> <li>✓ Structuring for competition</li> <li>✓ Structuring socio-economic issues</li> <li>✓ Structuring terms and conditions</li> <li>✓ Formulating the acquisition strategy considering contract types and their applicability as they relate to acquisition strategies, risk and life cycle management of the system</li> <li>✓ Comprehending procurement policies, contracting regulations, options, procedures and contract administration, performance and management issues</li> <li>✓ Comprehending alpha contracting process, as applicable</li> <li>✓ Special considerations outside the FAR.</li> <li>✓ Strategic sourcing needs</li> <li>✓ Use of other agency contracts</li> <li>✓ Ethics</li> <li>✓ Cost vs. fixed price contracts</li> <li>✓ Need for performance-based contracting and service agreements</li> <li>✓ Use of a Statement Of Objectives (SOO)</li> </ul> <p>B. Oversee efforts to ensure potential and actual contractors, sub-contractors and affiliated government organizations or offices have full comprehension of program definition, and the procuring agency’s organizational culture and</p>

Process	Competencies and Proficiencies
<p><u>Perform Source Selection</u></p>  <p><b>NOTE:</b> Source selection is the process used in competitive, negotiated contracting to select the proposal expected to result in the best value to the Government</p>	<p>organizational structure.</p> <ul style="list-style-type: none"> <li>✓ Assess application of source selection criteria including risk analysis methods, FAR Part 15/15.3 (if applicable) Contracting By Negotiation/Source Selection, etc.</li> <li>✓ Participate in the formulation of a source selection plan that allows for best value selection from a competitive solicitation.</li> <li>✓ Participate in the structuring of a formal source selection process that is commensurate to the level of procurement action to include the Source Selection Evaluation Board, Source Selection Advisory Counsel/Committee, and Source Selection Authority.</li> <li>✓ Oversee issues of international sourcing vs. domestic preferences, Buy American Act, Berry Amendment, Canadian inclusion, etc. that restrict sources.</li> <li>✓ Oversee issues of price reasonableness (price analysis, audits, cost analysis).</li> </ul>
<p><u>Administer Contract</u></p>  <p><b>NOTE:</b> The process of managing the contract and the relationship between the buyer and seller, reviewing and documenting how a seller is performing or has performed to establish required corrective actions and provide a basis for future relationships with the seller, managing contract related changes, and, when appropriate, managing the contractual relationship with the outside buyer of a program.</p>	<p>Support contract administrative actions, FAR Part 42 (if applicable) (Contract Administration and Audit Services), while addressing "base-lining" the contract as in Research and Technology Protection (RTP) actions and supporting the outlining of the contracting officer representative (COR) duties, if authorized, for administering contract requirements. Included is comprehension of the contract modification process, receipt of contractor change proposals, risk analysis, and contractor financing requirements. Administer award fee, CPAR and award fee management, and monitoring under performance-based contracting.</p>

<b>Process</b>	<b>Competencies and Proficiencies</b>
<p><u>Performance-Based Service Agreements</u></p>	<ul style="list-style-type: none"> <li>✓ Oversee the establishment of a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers.</li> <li>✓ Oversee negotiations for the required level of support at a cost consistent with available support funding.</li> <li>✓ Oversee application of the management actions required of agency program managers when engaged in the <u>acquisition of services</u>. This will include compliance with applicable statutes, agency directives, FAR Part 37 as appropriate, requirements of Agency Decision Authorities, guide books, and agency instructional pamphlets.</li> </ul>

## Business, Cost Estimating and Financial Management (Senior/Expert)

Individuals at this level should be able to recognize, apply and manage and evaluate the concepts presented at the Project Manager -- Entry/Apprentice Level.



As a reminder, the Project Manager – Entry/Apprentice Level Business, Cost Estimating and Financial Management process includes the recognition of the forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating programs and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM) (in accordance with American National Standards Institute (ANSI) Electronics Industries Alliance (EIA) Standard for EVM Systems #748-A, and other methods of performance measurement.

## Business, Cost Estimating and Financial Management Objectives

Some key objectives for Business, Cost Estimating and Financial Management include:

- ◆ Oversee the application Total Life Cycle Systems Management (TLCSM) or similar concept
- ◆ Recognize the forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating financial programs and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM) and other methods of performance measurement

## Business, Cost Estimating and Financial Management (Senior/Expert) Essential Core Competencies and Proficiencies

Process	Competencies and Proficiencies
<p><u>Business Financial Planning and Management</u></p>	<ul style="list-style-type: none"> <li>✓ Oversee application of Total Life Cycle Systems Management (TLCSM), or similar concept, which requires the program manager to base major decisions on system-wide analyses and the life cycle consequences of those decisions, and on system performance and affordability.</li> <li>✓ Recognition of the forms of cost estimating, cost analysis,</li> </ul>

	reconciliation of cost estimates, financial planning, formulating financial programs and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM), and other methods of performance measurement.
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**Leadership/Professional (Senior/Expert)**

These are the skills, knowledge, abilities and traits acquired through experience, training and education within government and private sector and are cumulative, leading to skilled supervision and seasoned leadership.

Leadership/professional skills of the Senior/Expert level can include:

- ◆ Vision
- ◆ Strategic Thinking
- ◆ External Awareness
- ◆ Entrepreneurship

Some key objectives for Leadership/Professional (Senior/Expert) include:

- ◆ Develop a business partnership with the Procuring Contracting Officer (PCO), Administrative Contracting Officer (ACO) and other business advisors with emphasis on building an acquisition strategy that will lead to program success
- ◆ Establish a team with the supplier/contractor for organization mapping, process alignment, joint program review strategies, etc.

**Leadership/Professional (Senior/Expert) Essential Core Competencies and Proficiencies**

Process	Competencies and Proficiencies
<p><u>Leadership/Professional Skills</u></p>  <p><b>NOTE:</b> These are the skills, knowledge, abilities, and traits acquired through experience, training and education within government and the private sector and are cumulative, leading to skilled supervision and seasoned leadership.</p>	<p>These competencies, in addition to those listed at entry-level/apprentice and mid/journeyman level, provide a foundation for effective senior/expert level program manager-related responsibilities:</p> <ul style="list-style-type: none"> <li>✓ Vision</li> <li>✓ Entrepreneurship</li> <li>✓ External Awareness</li> <li>✓ Strategic Thinking</li> </ul>

## **Additional Resources**

Listed below are some additional resources to supplement the information that you have reviewed for the Program Manager – Senior/Expert Level.

- ◆ FAC-PPM Vendor Consortium – a repository of training providers that offer classes and programs that meet training requirements for FAC-P/PM
- ◆ Program Management Community of Practice on the Acquisition Community Connection
- ◆ PMI Government/Local Chapters (chapters are located in Tyson’s Corner, Virginia; Washington, D.C.; etc.)