

# Introduction to Product Support Analysis (PSA) Course

Gain the instruction and practice to apply life cycle management processes to acquired systems, equipment and high-value physical assets. This introductory course provides training designed to provide an in-depth understanding of Product Supportability Analysis (PSA) disciplines as they relate to the five phases of Defense Acquisition Management System (DoDI 5000 Model). As an introductory course, there are no prerequisite requirements to attend.

### WHAT YOU'LL GAIN

Upon completion, participants will be able to:

- Describe PSA integration within a systems engineering, integrated product team (IPT) environment
- Explain the PSA processes and the Logistics Management Information (LMI) that results from these analyses
- Apply critical PSA processes throughout the phases of acquisition and sustainment

## **WHO BENEFITS**

This course is designed for:

- Logisticians, engineers, maintenance planners and program managers from novices to experienced professionals
- Anyone involved with performing/reviewing PSA
- Military, municipal and commercial sectors

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# **PSA** course outline

This course is comprised of seven units, beginning with an overview to provide a clear understanding of the learning expectations for each unit. The first unit introduces participants to the concept of PSA integration within a systems engineering IPT environment. The next five units provide instruction on the sequential phases of the DoD 5000 Model, addressing the processes and tools required to perform the tasks associated with each acquisition phase. During the sixth unit, trainees receive instruction on the roles and responsibilities of the DoD logistician when contracting for Logistics Product Data. The last unit will summarize and review course content and provide participants with opportunity to work in their pre-assigned groups to "teach back" one of the units.

# **Unit One: Supportability Overview**

- Introduction to the DoD acquisition process
- Determining capability requirements
- Determining key performance parameters
- Determining key system attributes
- Determining supportability objectives
- Design interface/maintenance planning role in supportability

### **Unit Two: Materiel Solution Analysis**

- Purpose of the MSA phase
- Analysis of alternatives
- Product support strategy
- PSA Logistician role is in the MSA phase
- Application assessments
- Identifying functional requirement sub-activities
- Baseline comparison system comparative analysis process
- Standardization and interoperability
- Systems Engineering Technical Reviews (SETR)
- SETRs that occur during materiel solution analysis phase

# Unit Three: Technology Maturation and Risk Reduction

- $\bullet$  Purpose of the technology maturation & risk reduction phase
- Technology Development Strategy (TDS)
- Life Cycle Sustainment Plan (LCSP)
- Updating product support analysis during the technology maturation and risk reduction phase
- Trade-off analysis
- SETRs that occur during technology maturation and risk reduction phase

# Unit Four: Engineering & Manufacturing Development(E & MD)

- Purpose of the engineering and manufacturing development (E&MD) phase
- Failure Mode, Effects and Criticality Analysis (FMECA)
- Fault Tree Analysis (FTA)
- Reliability-Centered Maintenance (RCM)
- Condition Based Maintenance Plus (CBM+) and Prognostic and Health Management (PHM)
- Level of Repair (LORA) process
- Maintenance Task Analysis (MTA)
- Early distribution analysis
- Supportability Test and Evaluation (ST&E)
- SETRs that occur during Engineering and Manufacturing Development (E&MD) phase

# Unit Five: Production and Deployment/ Operations and Support

- Purpose of the production and deployment/operations and support phases
- Initial Operational Test & Evaluation (IOT&E)
- Physical Configuration Audit (PCA)
- Engineering Change Proposal (ECP)
- Technical Directives (TD)
- Supply support
- Environmental safety & occupational health considerations
- Diminishing Manufacturing Sources and Material Shortages (DMSMS)
- Packaging, Handling, Storage and Transportation (PHS&T)
- Post production support planning
- SETRs that occur during production and deployment phase

# Unit Six: Contracting for Logistics Analysis/Product Data

- Introduction to logistics product data
- Statement of Work (SOW)
- Contract Data Requirements List (CDRL)
- Data Item Description (DID)
- Contracting best practices

### **Unit Seven: In-Service Sustainment Modules**

These Modules provide the student with the most up-to-date processes for sustaining DoD weapon systems in today's challenging environment.

- Engineering change proposal process
- Integrated maintenance concept
- Maintenance plan reviews
- · Deficiency reporting
- Supply support
- RCM

# **Unit Eight: Course Review**