Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
www.log-mgmt.com

Virtual Training Courses
Fall 2023

1 August 2023	Fundamentals of Integrated Product Support
11-14 September 2023	Product Support Analysis
19-20 September 2023	Model-Based Product Support
26-28 September 2023	Logistics Product Data
31 October-2 November 2023	Reliability, Availability and Maintainability Concepts
14-16 November	How to “Do” Life Cycle Costing
5-7 December 2023	The Provisioning Process and Supply Support

All courses are presented virtually using Microsoft Teams.

Class times are 0900-1600 EDT (NY/DC)

Early Bird Discounts

CLEP Membership Discounts

Group Discounts

Courses can be presented to organizations and customized to meet individual requirements.

Email for information and registration: conference@log-mgmt.com

www.log-mgmt.com

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Integrated Product Support

A Brief Discussion

Virtual Presentation - 1 August 2023

Course Description

This course is designed for the new logistician just starting in a new profession, the seasoned logistician seeking expand their knowledge or the non-logistics professional that needs to understand the basic philosophy and concepts of life cycle logistics, supportability during product development, logistics technical disciplines and logistics resource development techniques. The course is also extremely beneficial for the novice logistician needing to broaden their scope of knowledge on diverse logistics-related topics. Presented in a fast-paced situational study format, the course explores all aspects of logistics and support issues of contemporary programs. Applicable standards and specifications are introduced for future reference. Attendees will gain valuable insight into the problems, challenges and potential solutions encountered on virtually every one of today's programs.

Course Outline

- Integrated Product Support Concepts
- Related Technical Disciplines
- Product Life Cycle
- Logistics Life Cycle
- Total Cost of Ownership
- Maintenance Planning
- Provisioning and Supply Support
- Packaging, Handling, Storage & Transportability (PHS&T)
- Technical Documentation
- Manpower and Personnel
- Training and Training Equipment
- Support and Test Equipment
- Facilities and Infrastructure
- IT Systems Continuous Support
- Product Support Analysis
- Logistics Product Data
- IPS Management Issues
- IPS Planning Documentation
- Conclusion

Course Fee: US$395

Registration: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Fundamentals of Integrated Product Support - $395
1 August 2023

☐ Early Bird Discount 10% (Register before 15 June 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Product Support Analysis
TA STD 0017A
A Virtual Four-Day Course

Course Overview: DoD Instruction 5000.91, Product Support Management for the Adaptive Acquisition Framework, established the requirements for product support management on any program. TA STD 0017A, Product Support Analysis, provides the processes and methodologies for the Product Support Management to meet those requirements. GEIA STD 0007, Logistics Product Data, is the capability to document, use and communicate the results. The Product Support Analysis course is a detailed presentation of the lifecycle logistics process. The course presents the concepts, theories and philosophies of PSA, and then allows students to experience its application through realistic practical exercises. The course includes methods of PSA for design, upgrade, and off the shelf programs for both hardware and software are discussed to determine appropriate application techniques for both the buyer and the seller. The new TA STD 0017A expands traditional ILS efforts into a formal in-service process for continuous improvement and enhancing operational availability and mission capability.

This course is a comprehensive study of how the PSA process can be applied in a cost-effective manner to lower whole life costs. The course focuses on how to obtain the maximum benefit for the least investment in time and money.

A significant benefit of this course is resolving the myths and horror tales that have surrounded the PSA process. At the completion of this course students will understand that PSA does not create a large cost for acquisition; that PSA does not equate to useless data and databases; PSA now stretches through the in-service phase of a program and that, when done properly, PSA is a dynamic process that provides a pathway for ILS/Product Support Management success on any program.

Course Outline:

The Concept of PSA and LPD – introduces the concepts, theories and philosophies of the PSA process and how it is used to meet the requirements of the ILS/PSM organization for design, upgrade and off the shelf acquisition programs.

- History and background of PSA
- Lifecycle Logistics
- Different acquisition and sustainment strategies
- Cost of Ownership

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Support planning and delivery
- Support infrastructures

Establishing Supportability and Sustainment Requirements – a detailed presentation of how supportability engineering must be an integral part of systems architecting and systems engineering to achieve User requirements. This lesson focuses on how an organization implements PSA during design or selection of a system and then provides through life support.

- Developing the Application Assessment
- Preparing the Intended Use/Capabilities Report
- Identifying and Understanding design attributes for supportability enhancement
- Establishing measurable supportability goals, thresholds and constraints
- Performance-based supportability
- Systems architecting and systems engineering processes
- Reliability, Maintainability and Testability engineering requirements
- Reliability centered maintenance
- Calculating and validating Availability requirements
- Testing system supportability
- Assuring supportability characteristics are in the specification.
- Recording the results in the LPD

Implementing Requirements in the Design Solution – the how, when, who and why of decision-making that must be made to achieve minimum supportability requirements.

- Implementing design decisions for supportability
- Procurement decisions for supportability
- Evolving design solutions
- Reliability, Maintainability and Testability engineering assessment
- FMEA/FMECA to RCM to testing to success
- Participating in design reviews
- Assessing design compliance
- Recording the results in the LPD

Developing the Physical Logistics Support Package – discussion of how a portion of the PSA process can also be used to identify, document and develop the physical logistics support package during the latter stages of system acquisition.

- Maintenance planning
- The physical logistics support infrastructure
- Identification of maintenance significant items
- Linking maintenance tasks into maintenance procedures
- Maintenance task analysis

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Performing MTA
- Performing Task Validation
- Level of Repair Analysis
- Validating the final support package
- Recording the results in the LPD

Logistics Data – Documenting the results of PSA in a single logistic database

- Documenting results in the LPD
- Using the LPD
- Data Element Dictionary
- LPD Data Tables
- LPD Summary Reports
- LPD through life

Developing The Support Solution – Using the results of Maintenance Task Analysis as documented in the LPD to develop and deliver the support solution for a system for the DoD and for CLS/PBL.

- Initial Provisioning
- Maintenance documentation – IETM
- Training Needs Analysis – Training Courses
- Support equipment, test equipment, tools and TPSs
- Personnel requirements
- Facilities
- PHS&T

ASD Specifications - Implementing the ASD Specifications within the PSA Framework

- ASD S1000D
- ASD S2000M
- ASD S3000L
- ASD S4000P
- ASD S5000F
- ASD S6000T

Assuring Support Through Life – discussion of how the PSA process aids in identification and resolution or mitigation of potential long-term support shortfalls.

- Pre-fielding analysis
- Post production support analysis
- Obsolescence management (DMSMS)
- Disposal analysis

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Technology evolution
- Pre-planned product improvement
- In-Service Field Feedback

Supportability Assessment – a step by step methodology to assess progress toward achieving supportability goals, thresholds and constraints.

- Pre-procurement strategies
- Design assessment
- Testing guidelines and implementation
- Physical resource assessment
- Acceptance testing
- In-service demonstrations
- In-service trend analysis

PSA/LPD In-Service – realizing the power of supportability in sustainment success

- Establishing measurable expectations
- Gathering and refining believable results
- Understanding the disconnects of integrated sustainment
- Continuous improvement through design change
- Continuous improvement through process change
- Lessons learned from successful programs and programs that failed

Framework for Program Success – identification of all Government and Contractor responsibilities for PSA success.

- The Life Cycle Sustainment Plan (LCSP)
- The Contract
- The Contractor's PSA Plan
- Role of the Product Support Manager
- Role of the Program Manager
- Everyone's role in Success

Virtual Presentation using Microsoft Teams 0900-1630 EDT (NY/DC)

Course Fee: US$1,095

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Product Support Analysis - $1,095
11-14 September 2023

☐ Early Bird Discount 10% (Register before 1 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Model-Based Product Support
Extending
Model-Based Systems Engineering
19-20 September 2023

A Virtual/On-line Presentation

The years 1973-1983 represent one of the most significant technical transitions experienced in centuries as we moved from a paper-based industry to a computer-based environment. Computer databases replaced paper solutions. This transition was monumental for processes and products in reducing cost and maximizing results. Over the 40 years from 1983 to 2022, we have continually refined and enhanced this transition; however, we continue working within a paper-concept limiting set of boundaries. An Excel spreadsheet is still just a big piece of digital paper. Every computer program still has a "Print" function.

We are on the cusp of a generational evolution. Model-Based Product Support when implemented as a natural extension of Model-Based Systems Engineering represents a quantum leap into the future. However, coming to grips with the concept of paperless, totally digital model-based thinking challenges us all.

Course Overview: The transition from a paper to a digital environment is a reality for the future of system design and sustainment. Model-based Systems Engineering (MBSE) works. It is a proven method to streamline system development and address complex issues. Model-based Product Support (MBPS) is the next step in combining product design with product sustainment. Model-Based Product Support must be conjoined with Model-Based Systems Engineering to encompass the total life cycle of a system.

This course is a comprehensive study of how MBPS must be implemented as an extension of MBSE in a cost-effective manner to improve operational availability while controlling total cost of ownership. The course focuses on how to obtain the maximum benefit for the least investment in time and money.

A significant benefit of this course is resolving the myths and fairytales that have surrounded the MBPS process. MBPS is simply an extension of MBSE. At the completion of this course students will understand that MBPS is a comprehensive method of combining MBPS with MBSE so that sustainment and cost of ownership can be considered as a natural progression of the evolving design process, rather than an after the fact follow-on effort. This combined MBSE+MBPS approach provides design engineers and systems engineers with dynamic assessment of the design from concept through sustainment.

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Course Focus:

The Concept of "Model-Based"
Why Model-Based is so different from Paper-Based
Using MBSE as the foundation for MBPS
How MBPS should be a natural extension of MBSE
Understanding the actual benefits achievable by implementing MBPS + MBSE
Benefiting from Artificial Intelligence
The power of Prognostics
Organizational changes
Corporate thinking changes
Discussion of current "piecemeal" implementation approaches
The first real step toward implementation success
Challenges of Transition
What to do with Legacy programs

A virtual/on-line presentation using Microsoft Teams 0900-1700 EDT (USA NY/DC)

Course Fee: US$ 895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Model-Based Product Support - $895
10-20 September 2023

☐ Early Bird Discount 10% (Register before 1 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Logistics Product Data (LPD)

A Virtual Three-Day Course

26-28 September 2023

Course Overview: An intensive, hands-on course of instruction, not an overview, but a nuts-and-bolts marathon. This is a fast-paced course of instruction. It is assumed that attendees have prior knowledge of the Product Support Analysis (PSA)/Logistics Support Analysis (LSA) process and some background in logistics programs. The course is a very detailed presentation of every LPD Data Entity, Data Element (DED) and LPD Summary Report. At the completion of this course, students will have a real, usable understanding of the LPD, how it is created, and how it should be used. This will provide invaluable experience to be applied immediately. It is gained knowledge that students cannot afford to miss.

Course Outline:

Lesson 1: The Product Support Analysis Program

- Overview of the Product Support Analysis process -TA STD 0017A
- Introduction to the Logistics Product Data - GEIA STD 0007C
- Overview of the LPD data entities
- Discussion of data elements and data codes
- Starting the Process - Input Requirements
- Analyzing the design
- Use Study /Application Assessment
- LSA Control Number development
- LSA Candidate List preparation

Lesson 2: Creation of the LPD

An in-depth excursion through every LPD data entity which discusses how each data element requirement may be satisfied, where the information originates, how to arbitrate the correct responses and linking the final answers to the analysis process.

- Establishing a Project Neutral Data Library
- Establishing a document library
- Setting up the Project within the LPD
- Understanding the document linking library
- Preparation of PSA requirements data
- Preparation of PSA R&M data
- Preparation of PSA maintenance data

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

- Preparation of PSA support equipment data
- Preparation of PSA UUT data
- Preparation of PSA facilities requirements data
- Preparation of PSA skills requirements data
- Preparation of PSA resource requirements data
- Preparation of PSA safety and hazardous materials data
- Preparation of PSA provisioning data
- Preparation of PSA personnel data
- Preparation of PSA transportability data

Lesson 3: LPD Summary Reports

Detailed discussion of the LPD Summary Report process concentrating on the purpose and intent of each individual report and identification of uses of the information derived. Every report contained in TA HB 0007-1A is discussed in detail to determine the logic of the report, the data elements required to produce the report and its applicability to specific situations.

- Discussion of every summary report
  - Key Data Elements required to produce the report
  - Discretionary Data Elements that enhance the information
  - Optional Data that may be useful
- When and why to use each report
  - When a report should be used
  - Purpose of the report
  - Final or Work-In-Progress Report
- Using Reports
  - Improving system design
  - Quantifying Through Life Support requirements
  - Quantifying PBL liabilities
  - Determining Physical Logistics Packages

Lesson 4: Extending the LPD

- ASD Specification 1000D
- ASD Specification 2000M
- ASD Specification 3000L
- ASD Specification 4000P
- ASD Specification 5000F
- ASD Specification 6000T

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Lesson 5: Business issues of the LPD

- LPD Software
- Tailoring the LPD
- LPD Data Selection Criteria
- LPD Data Applicability Tailoring
- Preparation of an LPD Style Guide
- Contractual issues
    - Writing a good PWS/SOW requirement for LPD
    - CDRL Requirements
    - LPD Data Review Process
    - Delivery and Acceptance

Lesson 6: LPD Implementation for Product Support Analysis

- Creating and Maintaining a Neutral Data Library
    - Mandatory Data Elements
    - Discretionary Data Elements
    - Avoiding Useless Data
- Recording the Analysis Process
    - Systems Engineering inputs
    - Setting and Measuring Expectations
    - Maintenance Engineering Analysis
    - Resource Projections and Confirmations
    - Operational Resources Planning
- Linking to Configuration Status Accounting
    - Selection Criteria
    - Optional Features
    - Multiple generations
- Linking to Asset Management
    - Service Planning
    - Maintenance Data Collection
    - Resource Allocation and Forecasting
    - Budgeting for Actuals
- Linking to Obsolescence Management
    - DMSMS
    - Problem Identification and Resolution
    - Corporate Solutions for Project Problems
- Using the LPD for Supportability Assessment
    - Design and Program Reviews
    - Maintenance Task Validation
    - Maintainability Demonstration

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

  - Post Fielding Analysis
  - In-Service Assessment

- Using the LPD for Operational Mission Planning

Lesson 7: Conclusion

- Examples of Successful Implementation
- Future Possibilities

Virtual Presentation 0900-1630 EDT (NY/DC)

Course Fee: US$895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Logistics Product Data - $895
26-28 September 2023

☐ Early Bird Discount 10% (Register before 15 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Reliability, Availability and Maintainability

A Virtual Three-day Course
31 October – 2 November 2023

This course presents both an overview and in-depth analysis of how to achieve System Availability by design, and the corresponding Reliability and Maintainability driven parameters. Subjects covered include: Collaborative RAM Requirements, RAM Mission Profiles, RAM Allocations and Predictions, Hardware/Software Design Considerations, Failure Modes, Effects, and Criticality Analysis, Electrical/Mechanical/ Software Stress & Derating Analysis, Cost Savings and Program Management and Life Cycle RAM Tasks. Specific topic added to this course: Predictive Maintenance, how it is implemented, why it might be beneficial, and the effect of Predictive Maintenance on Supply Chain Management.

Course Content:

The Beginning Understandings
- What is Availability?
- The History of Availability
- Current Problems
- The Value of Availability
- Complexity benefits and problems
- What do the Terms Really Mean?
- Difference between Inherent and Induced
- Safety is Paramount
- Creating a Visual Understanding of the Complete Process

Collaborative RAM Requirements
- Developing a Functional Block Diagram
- Mapping from Functional to Physical
- Development of Reliability Requirements
- Development of Maintainability Requirements
- Development of Testability Requirements
- Development of Availability Requirements

Mission Profiles and Effect on RAM
- Use Drives Everything
- Environmental Profiles
- Internal and External Considerations
- Induced Stress Levels

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Developing Understandable Goals for Success
- Establishing the Reliability Window
- Maintainability as the Reliability Partner
- Testability at All Levels
- The Need for Availability

Creating Personal Goals Targets
- Reliability Allocations
- Maintainability Allocations
- Availability Allocations

RAM Predictions
- Reliability Predictions
- Maintainability Predictions
- Testability Predictions
- Availability Predictions

Hardware and Software Design Considerations
- Similarity Benefits
- Standardization and Commonality
- Functional Identification and Partitioning
- Technology Improvement Benefits and Penalties

Failure Modes Effects Criticality Analysis
- The FMECA Concept
- How to perform the Design FMECA Steps
- Using Process FMECA
- Is Criticality Really Critical
- Safety as a Show Stopper

Fault Tree Analysis
- Mapping the FMECA from Effect to Cause
- Why the FTA is so Beneficial
- Using a Logical approach to Functionality

Stress and Derating Analysis
- Benefits of Proper Derating
- Stresses vs. Equipment Availability
- Electrical Derating Considerations
- Mechanical Derating Considerations
- Parameters for Software Assessment
- Software Availability

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Reliability Centered Maintenance
- Selecting the Right Approach
- Following the RCM Decision Tree
- Interpreting the Disposition
- Creating the P-F Interval
- Determining the Right Tasks
- Scheduled Maintenance
- Condition-based Maintenance (CBM)
- Condition-based Maintenance Plus (CBM+)

In-Service Operations and Support
- Managing to Availability
- Trend Analysis techniques
- Making Adjustments
- Where Expectations Meet Reality

Predictive Maintenance
- Extending System Life with Availability Improvement
- Understanding the Implications of PdM
- Using the Internet of Things (IoT)
- Implementing PdM
- Combining Preventive and Predictive Maintenance

PdM and the Supply Chain
- What has to Change?
- Known No Fault Found (KNFF) Implications
- Adapting Sparing Levels
- Shifting Depot Maintenance Workload
- Can you Afford the Cost?

Putting the Concepts All Together
- Key Management Indicators
- Being Proactive in a Reactive World

Students participate in a 16-part Practical Exercise which demonstrates the application of each course topic on a system. A computer/laptop with Microsoft Excel is required.

A virtual/on-line presentation using Microsoft Teams 0900-1700 EDT (USA NY/DC)

Course Fee: US$ 895

Register at: conference@log-mgmt.com

LOGISTICS MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Reliability Availability Maintainability - $895
31 October – 2 November 2023

☐ Early Bird Discount 10% (Register before 15 September 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex

Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal

Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:

Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

How to "Do" Life Cycle Costing

A Virtual Three-Day Course

14-16 November 2023

Course Overview

The Life Cycle Cost (LCC) process will be discussed in detail to determine how and why these techniques are applied. An intensive study of modeling techniques will provide an in depth understanding of how LCC, LORA, Spares Optimization, and Availability models function. The process to be used in selection and validation of models is provided with detailed examples of how any model must be evaluated prior to use.

This is an intensive workshop-format training course with student hands-on development and use of models. Prior experience with LCC is not required, but students are expected to be comfortable in the use of computers and familiar with spreadsheet operations. Microsoft Excel is also used for exercises.

This training course is designed for program managers, Product Support Managers, logistics engineers, design engineers, systems engineers, analysts and other persons holding positions responsible to perform, manage or contract for LCC.

Course Outline

Day 1 - Concepts of LCC

- Life Cycle Costing concepts
- Through Life Costing
- Whole Life Costing
- Cost of Ownership
- Cost Effectiveness of Investment Analysis (CEIA)
- Cost as an Independent Variable (CAIV)
- Developing Cost Estimation Relationships (CER)
- Visibility and Management of Operating and Support Costs (VAMOSC)
- Supportability engineering modeling
- Resource optimization modeling
- LCC as part of Product Support Analysis
- LCC modeling concepts

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- LORA concepts
- LORA as part of LCC
- LORA within Product Support Analysis
- Applications and limitations of LCC and LORA
- Spares Optimization Modeling Concepts
- Related and Contrasting Modeling techniques
- Selection and validation of models

Day 2 - Applications of Modeling

- Cost Analysis Requirements Description (CARD)
- Comparison Analysis Modeling
- Sensitivity Analysis Modeling
- Simulation Modeling
- Monte Carlo Simulation
- Risk Analysis Modeling
- Worst Case Analysis
- Spares Modeling Techniques
- Availability Modeling Techniques
- Understanding Data Requirements
- Data Interpretation
- Determining Unknown Variables
- Cost Estimation Techniques
- Analogy-based Estimating
- Parametric Estimating
- Activity-based Estimating
- Data Interpretation
- Data Extrapolation

Day 3 - How LCC Models Think

Students participate in analysis of an LCC model focusing on each cost element and its application to the LCC process. Each formula contained within the model is analyzed to educate students on how models process input data to produce the final cost estimates. Then, students will use the instructor-provided model to determine the cost implications of design early support decisions. LC2 Model Version 2022-1J.1a will be used to illustrate spreadsheet modeling techniques.

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Day 3 - A Study of Complex LCC Modeling

Students participate in analysis of a complex LCC model. The Cost Analysis Strategy Assessment (CASA) Model is used as the basis for the practical exercise.

Students work a practical exercise to illustrate how complex LCC models use detailed equipment data to estimate operation and support costs. The practical exercise output is a decision as to which support structure provides the optimum balance between design, operation, spares, and availability.

Virtual Presentation 0900-1630 EST (NY/DC)

Course Fee: US$895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ How to "Do" Life Cycle Costing - $895
14-16 November 2023

☐ Early Bird Discount 10% (Register before 1 October 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

The Provisioning Process and Supply Support

A Virtual Three-day Presentation

5-7 December 2023

Provisioning is a vital process that ultimately determines the materials that should be available to support maintenance of a system, and to achieve a required operational availability target for a hopefully reasonable cost. This course is a unique offering that is a guided tour through the "nuts and bolts" of the complete provisioning process. It encompasses every aspect of the process from start to finish. This course is the only one of its kind.

Course Content and Focus:

A detailed presentation encompassing the relationships of technical disciplines within Product Support and how each contributes to the Provisioning process and Supply Support activities. Included in the course are in-depth discussions of reliability, maintainability, testability, reliability centered maintenance and availability and how these areas drive requirements for maintenance. Specific emphasis is placed on the provisioning process starting with requirements for spares and repair parts from Level of Repair Analysis and then moving to processes for determining quantities of spares required to support maintenance. Spares modeling using Poisson Distribution, Readiness Based Sparing and other methods are presented. The development of each individual data element required for generation of provisioning documentation to reflect the results of this process is presented in detail focusing on how data is used to feed the development of authorization documents such as the US Navy's APLs and COSALs. Each data element required for the LSA-036 report, or similar CDRL deliverable document, is discussed including its source and interpretation. Alternative to the LSA-036 are presented that meet current DoD sparing requirements. The course also discusses how Configuration Management and design changes influence requirements for spares and repair parts, and how standardization and the DMSMS process address obsolescence. At the completion of this course students should have the knowledge necessary to function as a provisioning analyst on a contemporary acquisition program.

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Course Outline:

- Concepts of Spares Requirements and Provisioning
  - Definitions of Materials
  - Initial Provisioning
  - Re-provisioning
  - Spares Management
  - Supply Support
  - Maintenance Planning
    - Maintenance and Sparing Philosophy
    - Maintenance and Sparing Concept
    - Maintenance and Sparing Plan

- Integrated Product Support Elements
  - Supply Support
  - Support and Test Equipment
  - Technical Documentation
  - Training
  - Facilities
  - PHS&T
  - Design Interface

- Designing for Provisioning and Supply Support
  - Design Reference Mission Profile
  - Systems Engineering
  - Design Engineering
  - Reliability
  - Maintainability
  - Testability
  - Accessibility
  - Availability
  - Standardization
  - Parts Management (MIL STD 3018)
  - DMSMS

- Spares Quantification
  - Spares Modeling
  - Poisson Distribution
  - Readiness Based Sparing
  - Sparing to Availability

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Developing Support Solutions
- Maintenance Task Analysis
- Support Resource Documentation
- Spares Ranging
- Pre-Provisioning Screening
- Level of Repair Analysis
- SMR Code Development
- NSN Assignment
- Maintainability/Supportability Demonstrations

Provisioning Process
- Provisioning Requirements Statement (PRS)
- Provisioning Performance Schedule (PPS)
- Provisioning Guidance Conference
- Contracting (SOW/CDRL)
- Provisioning Data Delivery
- Provisioning Conference
- Spares Ordering and Delivery

Provisioning Data and Documentation
- Provisioning Lists (PTD)
  - LLTIL,PPL, CBIL, TTEL, SFPPL, PCL, DCN and SPTD
- Provisioning Data Elements
  - (in depth discussion of each data element required for provisioning including data source, data application and data interpretation)

Configuration Management
- Design Baselines
- Configuration Status Accounting
- Design Changes
- Design Change Notices

Spares Management
- The DoD Supply System
- Inventory Management
- In-Service Provisioning
- Product Life Cycle Support (PLCS)

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Standards/Specifications referenced during this course:

- TA STD 0017A
- MIL STD 3018
- MIL STD 1375
- MIL STD 1552
- MIL STD 1561
- MIL STD 3034
- MIL STD 1388-1A
- MIL STD 1388-2B
- MIL PRF 49506
- MIL HDBK 61
- SAE AS 1390
- MIL HDBK 1390
- GEIA STD 0007C
- GEIA HDBK 0007
- TA HDBK 0007-1A
- GEIA STD 0009
- EIA STD 836
- ISO 10303
- ISO 10007
- ASD S1000D
- ASD S2000M
- ASD S3000L
- ASD S4000P
- ASD S5000F

Course Fee: US$895

Registration: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ The Provisioning Process and Supply Support - $895
5-7 December 2023

☐ Early Bird Discount 10% (Register before 15 October 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Integrated Product Support

A Brief Discussion

Virtual Presentation - 1 August 2023

Course Description

This course is designed for the new logistician just starting in a new profession, the seasoned logistician seeking expand their knowledge or the non-logistics professional that needs to understand the basic philosophy and concepts of life cycle logistics, supportability during product development, logistics technical disciplines and logistics resource development techniques. The course is also extremely beneficial for the novice logistician needing to broaden their scope of knowledge on diverse logistics-related topics. Presented in a fast-paced situational study format, the course explores all aspects of logistics and support issues of contemporary programs. Applicable standards and specifications are introduced for future reference. Attendees will gain valuable insight into the problems, challenges and potential solutions encountered on virtually every one of today's programs.

Course Outline

- Integrated Product Support Concepts
- Related Technical Disciplines
- Product Life Cycle
- Logistics Life Cycle
- Total Cost of Ownership
- Maintenance Planning
- Provisioning and Supply Support
- Packaging, Handling, Storage & Transportability (PHS&T)
- Technical Documentation
- Manpower and Personnel
- Training and Training Equipment
- Support and Test Equipment
- Facilities and Infrastructure
- IT Systems Continuous Support
- Product Support Analysis
- Logistics Product Data
- IPS Management Issues
- IPS Planning Documentation
- Conclusion

Course Fee: US$395

Registration: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Fundamentals of Integrated Product Support - $395
1 August 2023

☐ Early Bird Discount 10% (Register before 15 June 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Product Support Analysis
TA STD 0017A
A Virtual Four-Day Course

Course Overview: DoD Instruction 5000.91, Product Support Management for the Adaptive Acquisition Framework, established the requirements for product support management on any program. TA STD 0017A, Product Support Analysis, provides the processes and methodologies for the Product Support Management to meet those requirements. GEIA STD 0007, Logistics Product Data, is the capability to document, use and communicate the results. The Product Support Analysis course is a detailed presentation of the lifecycle logistics process. The course presents the concepts, theories and philosophies of PSA, and then allows students to experience its application through realistic practical exercises. The course includes methods of PSA for design, upgrade, and off the shelf programs for both hardware and software are discussed to determine appropriate application techniques for both the buyer and the seller. The new TA STD 0017A expands traditional ILS efforts into a formal in-service process for continuous improvement and enhancing operational availability and mission capability.

This course is a comprehensive study of how the PSA process can be applied in a cost-effective manner to lower whole life costs. The course focuses on how to obtain the maximum benefit for the least investment in time and money.

A significant benefit of this course is resolving the myths and horror tales that have surrounded the PSA process. At the completion of this course students will understand that PSA does not create a large cost for acquisition; that PSA does not equate to useless data and databases; PSA now stretches through the in-service phase of a program and that, when done properly, PSA is a dynamic process that provides a pathway for ILS/Product Support Management success on any program.

Course Outline:

The Concept of PSA and LPD – introduces the concepts, theories and philosophies of the PSA process and how it is used to meet the requirements of the ILS/PSM organization for design, upgrade and off the shelf acquisition programs.

- History and background of PSA
- Lifecycle Logistics
- Different acquisition and sustainment strategies
- Cost of Ownership

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Support planning and delivery
- Support infrastructures

Establishing Supportability and Sustainment Requirements – a detailed presentation of how supportability engineering must be an integral part of systems architecting and systems engineering to achieve User requirements. This lesson focuses on how an organization implements PSA during design or selection of a system and then provides through life support.

- Developing the Application Assessment
- Preparing the Intended Use/Capabilities Report
- Identifying and Understanding design attributes for supportability enhancement
- Establishing measurable supportability goals, thresholds and constraints
- Performance-based supportability
- Systems architecting and systems engineering processes
- Reliability, Maintainability and Testability engineering requirements
- Reliability centered maintenance
- Calculating and validating Availability requirements
- Testing system supportability
- Assuring supportability characteristics are in the specification.
- Recording the results in the LPD

Implementing Requirements in the Design Solution – the how, when, who and why of decision-making that must be made to achieve minimum supportability requirements.

- Implementing design decisions for supportability
- Procurement decisions for supportability
- Evolving design solutions
- Reliability, Maintainability and Testability engineering assessment
- FMEA/FMECA to RCM to testing to success
- Participating in design reviews
- Assessing design compliance
- Recording the results in the LPD

Developing the Physical Logistics Support Package – discussion of how a portion of the PSA process can also be used to identify, document and develop the physical logistics support package during the latter stages of system acquisition.

- Maintenance planning
- The physical logistics support infrastructure
- Identification of maintenance significant items
- Linking maintenance tasks into maintenance procedures
- Maintenance task analysis

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Performing MTA
- Performing Task Validation
- Level of Repair Analysis
- Validating the final support package
- Recording the results in the LPD

Logistics Data – Documenting the results of PSA in a single logistic database

- Documenting results in the LPD
- Using the LPD
- Data Element Dictionary
- LPD Data Tables
- LPD Summary Reports
- LPD through life

Developing The Support Solution – Using the results of Maintenance Task Analysis as documented in the LPD to develop and deliver the support solution for a system for the DoD and for CLS/PBL.

- Initial Provisioning
- Maintenance documentation – IETM
- Training Needs Analysis – Training Courses
- Support equipment, test equipment, tools and TPSs
- Personnel requirements
- Facilities
- PHS&T

ASD Specifications - Implementing the ASD Specifications within the PSA Framework

- ASD S1000D
- ASD S2000M
- ASD S3000L
- ASD S4000P
- ASD S5000F
- ASD S6000T

Assuring Support Through Life – discussion of how the PSA process aids in identification and resolution or mitigation of potential long-term support shortfalls.

- Pre-fielding analysis
- Post production support analysis
- Obsolescence management (DMSMS)
- Disposal analysis

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- Technology evolution
- Pre-planned product improvement
- In-Service Field Feedback

Supportability Assessment – a step by step methodology to assess progress toward achieving supportability goals, thresholds and constraints.

- Pre-procurement strategies
- Design assessment
- Testing guidelines and implementation
- Physical resource assessment
- Acceptance testing
- In-service demonstrations
- In-service trend analysis

PSA/LPD In-Service – realizing the power of supportability in sustainment success

- Establishing measurable expectations
- Gathering and refining believable results
- Understanding the disconnects of integrated sustainment
- Continuous improvement through design change
- Continuous improvement through process change
- Lessons learned from successful programs and programs that failed

Framework for Program Success – identification of all Government and Contractor responsibilities for PSA success.

- The Life Cycle Sustainment Plan (LCSP)
- The Contract
- The Contractor's PSA Plan
- Role of the Product Support Manager
- Role of the Program Manager
- Everyone's role in Success

Virtual Presentation using Microsoft Teams 0900-1630 EDT (NY/DC)

Course Fee: US$1,095

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Product Support Analysis - $1,095
11-14 September 2023

☐ Early Bird Discount 10% (Register before 1 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Logistics Product Data (LPD)

A Virtual Three-Day Course

26-28 September 2023

Course Overview: An intensive, hands-on course of instruction, not an overview, but a nuts-and-bolts marathon. This is a fast-paced course of instruction. It is assumed that attendees have prior knowledge of the Product Support Analysis (PSA)/Logistics Support Analysis (LSA) process and some background in logistics programs. The course is a very detailed presentation of every LPD Data Entity, Data Element (DED) and LPD Summary Report. At the completion of this course, students will have a real, usable understanding of the LPD, how it is created, and how it should be used. This will provide invaluable experience to be applied immediately. It is gained knowledge that students cannot afford to miss.

Course Outline:

Lesson 1: The Product Support Analysis Program

- Overview of the Product Support Analysis process -TA STD 0017A
- Introduction to the Logistics Product Data - GEIA STD 0007C
- Overview of the LPD data entities
- Discussion of data elements and data codes
- Starting the Process - Input Requirements
- Analyzing the design
- Use Study /Application Assessment
- LSA Control Number development
- LSA Candidate List preparation

Lesson 2: Creation of the LPD

An in-depth excursion through every LPD data entity which discusses how each data element requirement may be satisfied, where the information originates, how to arbitrate the correct responses and linking the final answers to the analysis process.

- Establishing a Project Neutral Data Library
- Establishing a document library
- Setting up the Project within the LPD
- Understanding the document linking library
- Preparation of PSA requirements data
- Preparation of PSA R&M data
- Preparation of PSA maintenance data

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

- Preparation of PSA support equipment data
- Preparation of PSA UUT data
- Preparation of PSA facilities requirements data
- Preparation of PSA skills requirements data
- Preparation of PSA resource requirements data
- Preparation of PSA safety and hazardous materials data
- Preparation of PSA provisioning data
- Preparation of PSA personnel data
- Preparation of PSA transportability data

Lesson 3: LPD Summary Reports

Detailed discussion of the LPD Summary Report process concentrating on the purpose and intent of each individual report and identification of uses of the information derived. Every report contained in TA HB 0007-1A is discussed in detail to determine the logic of the report, the data elements required to produce the report and its applicability to specific situations.

- Discussion of every summary report
  - Key Data Elements required to produce the report
  - Discretionary Data Elements that enhance the information
  - Optional Data that may be useful
- When and why to use each report
  - When a report should be used
  - Purpose of the report
  - Final or Work-In-Progress Report
- Using Reports
  - Improving system design
  - Quantifying Through Life Support requirements
  - Quantifying PBL liabilities
  - Determining Physical Logistics Packages

Lesson 4: Extending the LPD

- ASD Specification 1000D
- ASD Specification 2000M
- ASD Specification 3000L
- ASD Specification 4000P
- ASD Specification 5000F
- ASD Specification 6000T

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Lesson 5: Business issues of the LPD

- LPD Software
- Tailoring the LPD
- LPD Data Selection Criteria
- LPD Data Applicability Tailoring
- Preparation of an LPD Style Guide
- Contractual issues
    - Writing a good PWS/SOW requirement for LPD
    - CDRL Requirements
    - LPD Data Review Process
    - Delivery and Acceptance

Lesson 6: LPD Implementation for Product Support Analysis

- Creating and Maintaining a Neutral Data Library
    - Mandatory Data Elements
    - Discretionary Data Elements
    - Avoiding Useless Data
- Recording the Analysis Process
    - Systems Engineering inputs
    - Setting and Measuring Expectations
    - Maintenance Engineering Analysis
    - Resource Projections and Confirmations
    - Operational Resources Planning
- Linking to Configuration Status Accounting
    - Selection Criteria
    - Optional Features
    - Multiple generations
- Linking to Asset Management
    - Service Planning
    - Maintenance Data Collection
    - Resource Allocation and Forecasting
    - Budgeting for Actuals
- Linking to Obsolescence Management
    - DMSMS
    - Problem Identification and Resolution
    - Corporate Solutions for Project Problems
- Using the LPD for Supportability Assessment
    - Design and Program Reviews
    - Maintenance Task Validation
    - Maintainability Demonstration

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

  - Post Fielding Analysis
  - In-Service Assessment

- Using the LPD for Operational Mission Planning

Lesson 7: Conclusion

- Examples of Successful Implementation
- Future Possibilities

Virtual Presentation 0900-1630 EDT (NY/DC)

Course Fee: US$895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Logistics Product Data - $895
26-28 September 2023

☐ Early Bird Discount 10% (Register before 15 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

How to "Do" Life Cycle Costing

A Virtual Three-Day Course

14-16 November 2023

Course Overview

The Life Cycle Cost (LCC) process will be discussed in detail to determine how and why these techniques are applied. An intensive study of modeling techniques will provide an in depth understanding of how LCC, LORA, Spares Optimization, and Availability models function. The process to be used in selection and validation of models is provided with detailed examples of how any model must be evaluated prior to use.

This is an intensive workshop-format training course with student hands-on development and use of models. Prior experience with LCC is not required, but students are expected to be comfortable in the use of computers and familiar with spreadsheet operations. Microsoft Excel is also used for exercises.

This training course is designed for program managers, Product Support Managers, logistics engineers, design engineers, systems engineers, analysts and other persons holding positions responsible to perform, manage or contract for LCC.

Course Outline

Day 1 - Concepts of LCC

- Life Cycle Costing concepts
- Through Life Costing
- Whole Life Costing
- Cost of Ownership
- Cost Effectiveness of Investment Analysis (CEIA)
- Cost as an Independent Variable (CAIV)
- Developing Cost Estimation Relationships (CER)
- Visibility and Management of Operating and Support Costs (VAMOSC)
- Supportability engineering modeling
- Resource optimization modeling
- LCC as part of Product Support Analysis
- LCC modeling concepts

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

- LORA concepts
- LORA as part of LCC
- LORA within Product Support Analysis
- Applications and limitations of LCC and LORA
- Spares Optimization Modeling Concepts
- Related and Contrasting Modeling techniques
- Selection and validation of models

Day 2 - Applications of Modeling

- Cost Analysis Requirements Description (CARD)
- Comparison Analysis Modeling
- Sensitivity Analysis Modeling
- Simulation Modeling
- Monte Carlo Simulation
- Risk Analysis Modeling
- Worst Case Analysis
- Spares Modeling Techniques
- Availability Modeling Techniques
- Understanding Data Requirements
- Data Interpretation
- Determining Unknown Variables
- Cost Estimation Techniques
- Analogy-based Estimating
- Parametric Estimating
- Activity-based Estimating
- Data Interpretation
- Data Extrapolation

Day 3 - How LCC Models Think

Students participate in analysis of an LCC model focusing on each cost element and its application to the LCC process. Each formula contained within the model is analyzed to educate students on how models process input data to produce the final cost estimates. Then, students will use the instructor-provided model to determine the cost implications of design early support decisions. LC2 Model Version 2022-1J.1a will be used to illustrate spreadsheet modeling techniques.

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Day 3 - A Study of Complex LCC Modeling

Students participate in analysis of a complex LCC model. The Cost Analysis Strategy Assessment (CASA) Model is used as the basis for the practical exercise.

Students work a practical exercise to illustrate how complex LCC models use detailed equipment data to estimate operation and support costs. The practical exercise output is a decision as to which support structure provides the optimum balance between design, operation, spares, and availability.

Virtual Presentation 0900-1630 EST (NY/DC)

Course Fee: US$895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ How to "Do" Life Cycle Costing - $895
14-16 November 2023

☐ Early Bird Discount 10% (Register before 1 October 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Reliability, Availability and Maintainability

A Virtual Three-day Course
31 October – 2 November 2023

This course presents both an overview and in-depth analysis of how to achieve System Availability by design, and the corresponding Reliability and Maintainability driven parameters. Subjects covered include: Collaborative RAM Requirements, RAM Mission Profiles, RAM Allocations and Predictions, Hardware/Software Design Considerations, Failure Modes, Effects, and Criticality Analysis, Electrical/Mechanical/ Software Stress & Derating Analysis, Cost Savings and Program Management and Life Cycle RAM Tasks. Specific topic added to this course: Predictive Maintenance, how it is implemented, why it might be beneficial, and the effect of Predictive Maintenance on Supply Chain Management.

Course Content:

The Beginning Understandings
- What is Availability?
- The History of Availability
- Current Problems
- The Value of Availability
- Complexity benefits and problems
- What do the Terms Really Mean?
- Difference between Inherent and Induced
- Safety is Paramount
- Creating a Visual Understanding of the Complete Process

Collaborative RAM Requirements
- Developing a Functional Block Diagram
- Mapping from Functional to Physical
- Development of Reliability Requirements
- Development of Maintainability Requirements
- Development of Testability Requirements
- Development of Availability Requirements

Mission Profiles and Effect on RAM
- Use Drives Everything
- Environmental Profiles
- Internal and External Considerations
- Induced Stress Levels

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Developing Understandable Goals for Success
- Establishing the Reliability Window
- Maintainability as the Reliability Partner
- Testability at All Levels
- The Need for Availability

Creating Personal Goals Targets
- Reliability Allocations
- Maintainability Allocations
- Availability Allocations

RAM Predictions
- Reliability Predictions
- Maintainability Predictions
- Testability Predictions
- Availability Predictions

Hardware and Software Design Considerations
- Similarity Benefits
- Standardization and Commonality
- Functional Identification and Partitioning
- Technology Improvement Benefits and Penalties

Failure Modes Effects Criticality Analysis
- The FMECA Concept
- How to perform the Design FMECA Steps
- Using Process FMECA
- Is Criticality Really Critical
- Safety as a Show Stopper

Fault Tree Analysis
- Mapping the FMECA from Effect to Cause
- Why the FTA is so Beneficial
- Using a Logical approach to Functionality

Stress and Derating Analysis
- Benefits of Proper Derating
- Stresses vs. Equipment Availability
- Electrical Derating Considerations
- Mechanical Derating Considerations
- Parameters for Software Assessment
- Software Availability

Logistics Management Associates
3010 Heather Green Blvd.
LaGrange, Kentucky USA 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Reliability Centered Maintenance
- Selecting the Right Approach
- Following the RCM Decision Tree
- Interpreting the Disposition
- Creating the P-F Interval
- Determining the Right Tasks
- Scheduled Maintenance
- Condition-based Maintenance (CBM)
- Condition-based Maintenance Plus (CBM+)

In-Service Operations and Support
- Managing to Availability
- Trend Analysis techniques
- Making Adjustments
- Where Expectations Meet Reality

Predictive Maintenance
- Extending System Life with Availability Improvement
- Understanding the Implications of PdM
- Using the Internet of Things (IoT)
- Implementing PdM
- Combining Preventive and Predictive Maintenance

PdM and the Supply Chain
- What has to Change?
- Known No Fault Found (KNFF) Implications
- Adapting Sparing Levels
- Shifting Depot Maintenance Workload
- Can you Afford the Cost?

Putting the Concepts All Together
- Key Management Indicators
- Being Proactive in a Reactive World

Students participate in a 16-part Practical Exercise which demonstrates the application of each course topic on a system. A computer/laptop with Microsoft Excel is required.

A virtual/on-line presentation using Microsoft Teams 0900-1700 EDT (USA NY/DC)

Course Fee: US$ 895

Register at: conference@log-mgmt.com

LOGISTICS MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Reliability Availability Maintainability - $895
31 October – 2 November 2023

☐ Early Bird Discount 10% (Register before 15 September 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex

Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal

Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:

Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Model-Based Product Support
Extending
Model-Based Systems Engineering
19-20 September 2023

A Virtual/On-line Presentation

The years 1973-1983 represent one of the most significant technical transitions experienced in centuries as we moved from a paper-based industry to a computer-based environment. Computer databases replaced paper solutions. This transition was monumental for processes and products in reducing cost and maximizing results. Over the 40 years from 1983 to 2022, we have continually refined and enhanced this transition; however, we continue working within a paper-concept limiting set of boundaries. An Excel spreadsheet is still just a big piece of digital paper. Every computer program still has a "Print" function.

We are on the cusp of a generational evolution. Model-Based Product Support when implemented as a natural extension of Model-Based Systems Engineering represents a quantum leap into the future. However, coming to grips with the concept of paperless, totally digital model-based thinking challenges us all.

Course Overview: The transition from a paper to a digital environment is a reality for the future of system design and sustainment. Model-based Systems Engineering (MBSE) works. It is a proven method to streamline system development and address complex issues. Model-based Product Support (MBPS) is the next step in combining product design with product sustainment. Model-Based Product Support must be conjoined with Model-Based Systems Engineering to encompass the total life cycle of a system.

This course is a comprehensive study of how MBPS must be implemented as an extension of MBSE in a cost-effective manner to improve operational availability while controlling total cost of ownership. The course focuses on how to obtain the maximum benefit for the least investment in time and money.

A significant benefit of this course is resolving the myths and fairytales that have surrounded the MBPS process. MBPS is simply an extension of MBSE. At the completion of this course students will understand that MBPS is a comprehensive method of combining MBPS with MBSE so that sustainment and cost of ownership can be considered as a natural progression of the evolving design process, rather than an after the fact follow-on effort. This combined MBSE+MBPS approach provides design engineers and systems engineers with dynamic assessment of the design from concept through sustainment.

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.949.242.3002
www.log-mgmt.com

Course Focus:

The Concept of "Model-Based"
Why Model-Based is so different from Paper-Based
Using MBSE as the foundation for MBPS
How MBPS should be a natural extension of MBSE
Understanding the actual benefits achievable by implementing MBPS + MBSE
Benefiting from Artificial Intelligence
The power of Prognostics
Organizational changes
Corporate thinking changes
Discussion of current "piecemeal" implementation approaches
The first real step toward implementation success
Challenges of Transition
What to do with Legacy programs

A virtual/on-line presentation using Microsoft Teams 0900-1700 EDT (USA NY/DC)

Course Fee: US$ 895

Register at: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Model-Based Product Support - $895
10-20 September 2023

☐ Early Bird Discount 10% (Register before 1 August 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

The Provisioning Process and Supply Support

A Virtual Three-day Presentation

5-7 December 2023

Provisioning is a vital process that ultimately determines the materials that should be available to support maintenance of a system, and to achieve a required operational availability target for a hopefully reasonable cost. This course is a unique offering that is a guided tour through the "nuts and bolts" of the complete provisioning process. It encompasses every aspect of the process from start to finish. This course is the only one of its kind.

Course Content and Focus:

A detailed presentation encompassing the relationships of technical disciplines within Product Support and how each contributes to the Provisioning process and Supply Support activities. Included in the course are in-depth discussions of reliability, maintainability, testability, reliability centered maintenance and availability and how these areas drive requirements for maintenance. Specific emphasis is placed on the provisioning process starting with requirements for spares and repair parts from Level of Repair Analysis and then moving to processes for determining quantities of spares required to support maintenance. Spares modeling using Poisson Distribution, Readiness Based Sparing and other methods are presented. The development of each individual data element required for generation of provisioning documentation to reflect the results of this process is presented in detail focusing on how data is used to feed the development of authorization documents such as the US Navy's APLs and COSALs. Each data element required for the LSA-036 report, or similar CDRL deliverable document, is discussed including its source and interpretation. Alternative to the LSA-036 are presented that meet current DoD sparing requirements. The course also discusses how Configuration Management and design changes influence requirements for spares and repair parts, and how standardization and the DMSMS process address obsolescence. At the completion of this course students should have the knowledge necessary to function as a provisioning analyst on a contemporary acquisition program.

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Course Outline:

- Concepts of Spares Requirements and Provisioning
  - Definitions of Materials
  - Initial Provisioning
  - Re-provisioning
  - Spares Management
  - Supply Support
  - Maintenance Planning
    - Maintenance and Sparing Philosophy
    - Maintenance and Sparing Concept
    - Maintenance and Sparing Plan

- Integrated Product Support Elements
  - Supply Support
  - Support and Test Equipment
  - Technical Documentation
  - Training
  - Facilities
  - PHS&T
  - Design Interface

- Designing for Provisioning and Supply Support
  - Design Reference Mission Profile
  - Systems Engineering
  - Design Engineering
  - Reliability
  - Maintainability
  - Testability
  - Accessibility
  - Availability
  - Standardization
  - Parts Management (MIL STD 3018)
  - DMSMS

- Spares Quantification
  - Spares Modeling
  - Poisson Distribution
  - Readiness Based Sparing
  - Sparing to Availability

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Developing Support Solutions
- Maintenance Task Analysis
- Support Resource Documentation
- Spares Ranging
- Pre-Provisioning Screening
- Level of Repair Analysis
- SMR Code Development
- NSN Assignment
- Maintainability/Supportability Demonstrations

Provisioning Process
- Provisioning Requirements Statement (PRS)
- Provisioning Performance Schedule (PPS)
- Provisioning Guidance Conference
- Contracting (SOW/CDRL)
- Provisioning Data Delivery
- Provisioning Conference
- Spares Ordering and Delivery

Provisioning Data and Documentation
- Provisioning Lists (PTD)
  - LLTIL,PPL, CBIL, TTEL, SFPPL, PCL, DCN and SPTD
- Provisioning Data Elements
  - (in depth discussion of each data element required for provisioning including data source, data application and data interpretation)

Configuration Management
- Design Baselines
- Configuration Status Accounting
- Design Changes
- Design Change Notices

Spares Management
- The DoD Supply System
- Inventory Management
- In-Service Provisioning
- Product Life Cycle Support (PLCS)

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, Kentucky 40031
+1.949.954.4488 (F)+1.9492403002
www.log-mgmt.com

Standards/Specifications referenced during this course:

- TA STD 0017A
- MIL STD 3018
- MIL STD 1375
- MIL STD 1552
- MIL STD 1561
- MIL STD 3034
- MIL STD 1388-1A
- MIL STD 1388-2B
- MIL PRF 49506
- MIL HDBK 61
- SAE AS 1390
- MIL HDBK 1390
- GEIA STD 0007C
- GEIA HDBK 0007
- TA HDBK 0007-1A
- GEIA STD 0009
- EIA STD 836
- ISO 10303
- ISO 10007
- ASD S1000D
- ASD S2000M
- ASD S3000L
- ASD S4000P
- ASD S5000F

Course Fee: US$895

Registration: conference@log-mgmt.com

LOGISTICS
MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ The Provisioning Process and Supply Support - $895
5-7 December 2023

☐ Early Bird Discount 10% (Register before 15 October 2023)

☐ CLEP/SOLE Active Member Discount 10%

Payment Method:

☐ Visa/MC/Amex
Name on Card _____
Card Number _____
Expires _____
CVC _____
Billing ZIP/Post Code _____

☐ PayPal
Send invoice to (email):_____

☐ SF182 (USN/USMC) (attached)

Send completed registration form to:
Email: conference@log-mgmt.com
Fax +1.949.242.3002

Logistics Management Associates
3010 Heather Green Blvd
LaGrange, KY 40031