LOGISTICS ANALYSIS WORKSHOP CATALOG

2025

LIFE CYCLE COST

RELIABILITY, MAINTAINABILITY, AVAILABILITY ANALYSIS

FRONT END ANALYSIS

PERFORMANCE BASED SUPPORTABILITY/ LOGISTICS

LOGISTICS FOR ENGINEERS

CONFIGURATION MANAGEMENT LORA FMECA

SUPPORTABILITY AND LOGISTICS ENGINEERING/ ANALYSIS PSA/LPD

ALE

WORKSHOP SERIES

ALE's workshops have been developed to meet the varying needs of our clients. They cover the general field of logistics analysis, specialty analysis, and integrated logistics support. Upon request, ALE will develop or customize workshops to meet the specific needs of a client.

Workshops are offered on a regional basis, virtually, or as in-house training programs. When conducted for your company, the size of the group and the sample problems can be tailored to your specific programs. This method often results in the identification of cost avoidance opportunities that far exceed the cost of the workshop itself. The cost of a typical in-house workshop is less than sending five employees to a regional workshop, and the opportunities for staff development are much greater.

Whether regional, virtual, or in-house, our workshops are geared toward hands-on exercises that rapidly develop the participants' understanding and working knowledge of the subject.

For further details on workshops offered by ALE or for any of your specialty analysis needs, please contact:

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WORKSHOP LISTING

LOGISTIC ENGINEERING: AN INTRODUCTION

Logistic Engineering is the application of Systems Engineering principles to cost-effectively develop systems, equipment, and their associated support. This one-day workshop familiarizes attendees with the objectives of Logistic Engineering, and its role and benefits in the life cycle management of modern systems and equipment.

The ideal candidate for the workshop is the government or industry contractor employee who is new to the acquisition or logistics field, or the operationally experienced enlisted person or officer who is newly assigned to the acquisition field. It is assumed that each participant is generally familiar with acquisition terminology through practical experience or Defense Acquisition University courses such as ACQ 101 or equivalent.

The desired learning outcome for the workshop is a basic understanding of the tools and methodologies that are available and commonly used to accomplish logistic engineering and supportability analysis, and the inter-relationships between these tools and methodologies.

TOPICS

- Introduction and Overview
- Systems Engineering Overview
- Tools and Techniques of the Logistic Engineer
- Influencing Requirements and Concepts
- Logistic Engineering during System/Product Detailed Design
- Designing the Support System
- Supporting the Design and Continuous Improvement
- Logistic Engineering in a Performance Based Logistics (PBL) Environment
- Skills and Qualifications of the Logistics Engineer

LOGISTIC ENGINEERING / LOGISTIC ANALYSES

The goal of Logistic Engineering is to develop a supportable product and to develop the support system for that product. Today's DoD environment requires program managers to understand not only the core technology they are responsible for, but also the Logistic Engineering analyses, tools, and processes to support their products when fielded.

This three-day workshop is designed to provide the new logistics analyst or engineer with a working knowledge of the tools and methodologies used in the acquisition process to improve support for modern systems. This workshop establishes the need for supportability in products and provides an overview of how supportability analyses vary over the phases of a typical DoD program.

The ideal candidate for the workshop is the government or industry employee who is new to the acquisition or logistics field, or the operationally experienced enlisted person or officer who is newly assigned to the acquisition field. It is assumed that each participant is generally familiar with acquisition terminology through practical experience or Defense Acquisition University courses such as ACQ 101 or equivalent.

The desired learning outcomes for this workshop is an understanding how Logistic Engineering relates to the program objective of reducing operating and support costs; to become familiar with how Logistic Engineering relates to Systems Engineering, Life Cycle Cost, Design, Maintenance Planning, and Performance Based Logistics; and to develop familiarity with the tools and methodologies of Logistic Engineering and their application over all phases of the program.

TOPICS

- Introduction and Overview
- Systems Engineering and Logistic Engineering (An Overview)
- Front End Analysis
- Overview of Supportability Analysis
- The Role of Supportability Analysis During Acquisition
- Performance Based Supportability Analysis (An Overview)
- Product Support Analysis (An Overview of PSA/LPD)
- Reliability (An Introduction)
- Maintainability (An Overview)
- Availability Analysis
- Maintenance Task Analysis
- Repair Level Analysis
- Preventive Maintenance Analysis
- Life Cycle Cost (An Overview)
- Role of Supportability in Performance Based Logistics (PBL)
- Challenges in Logistic Engineering and Analysis and Overcoming Them

RELIABILITY, MAINTAINABILITY, AND AVAILABILITY (RMA): AN INTRODUCTION

Modern complex system and equipment programs present challenging system operational availability and affordability requirements. RMA analyses provide the theoretical and practical tools to specify, predict, design-in, test, and demonstrate the probability of items (from individual parts up to entire systems) to perform for desired time periods in specified environments. RMA analyses also enable the monitoring and feedback of item/system performance to all concerned organizations and allow for implementation of any needed corrective action(s).

This one-day workshop is designed to provide program managers, engineers, and logisticians with a basic understanding of reliability, maintainability, and availability concepts, and their application to systems and equipment in the sustainment phase of their life cycle.. This course will help participants gain a practical knowledge of the elements of a successful RMA program and how to specify, plan, and manage them. Participants will become familiar with methodologies for accomplishing and integrating key elements of a RMA program, learn how to develop a plan and manage the program, and recognize what challenges exist and how to overcome them.

The desired learning outcome for this workshop is to develop an understanding of the concepts and objectives of RMA; introduce participants to common tools and techniques of RMA analyses; and help them understand the role, benefits, and challenges of RMA throughout the product life cycle.

TOPICS

- An Introduction and Overview to RMA
- Familiarization and Understanding of RMA Concepts and Definitions
- Identification and Discussion of RMA Program Elements
- Introduction to RMA Analysis Tools and Techniques
- Discussion of Differences Between System vs. Item Level RMA
- Discussion of the Relationship Between RMA and Warranty
- Some Key Challenges in RMA and How to Address Them
- Sources of More Information on RMA

RELIABILITY, MAINTAINABILITY, AND AVAILABILITY (RMA) ANALYSES AND MANAGEMENT

Modern complex systems and equipment programs present challenging system operational availability and affordability requirements. RMA analyses provide the theoretical and practical tools to specify, predict, design in, test, and demonstrate the probability of items (from individual parts up to entire systems) to perform without failure for desired time periods in specified environments. RMA analyses also enable the monitoring and feedback of item/system performance to all concerned organizations, and allow implementation of any needed corrective action(s).

This three-day course is designed to provide engineers, program managers, systems designers, and logisticians with practical knowledge of the elements of a successful RMA program. Workshop participants will learn to specify, plan, and manage RMA programs; and recognize what challenges exist and how to overcome them. Real-world examples are used throughout the workshop to illustrate key learning points, and practical exercises are accomplished to reinforce workshop objectives.

The desired learning outcome for the workshop is to develop an understanding of the interrelationship between the disciplines and to learn proper techniques for implementation of a RMA program. Participants will gain practical knowledge of the elements of a successful RMA program, including Program Development and Management, and how to apply them to improve RMA and reduce life cycle cost.

TOPICS

- RMA Introduction and Overview
- Reliability Overview, Concepts, and Definitions
- Maintainability Overview, Concepts, and Definitions
- Availability Overview, Concepts, and Definitions
- Functional Block Diagrams (FBDs)
- Reliability and Maintainability Models
- RMA Allocations
- RMA Predictions
- Maintainability Predictions
- Availability Predictions
- Concepts of Failure Mode, Effects, and Criticality Analysis (FMECA) and Fault Tree Analysis (FTA)
- Concepts of Reliability Testing and Failure Reporting and Corrective Action System (FRACAS)
- RMA Planning
- Application and Integration of RMA Tasking
- Reliability and Spare Demand Rates

FRONT END ANALYSIS

The case for Front End Analysis (FEA) is very simple—the earlier you can identify the issues that will impact resource consumption, the greater the opportunity for introducing ideas for reducing resource consumption. In the concept formulation phase, before the system is defined, it is relatively easy to incorporate system improvements. Front End Analysis is a systematic assessment of the interaction of operational, logistical, and technical considerations performed at the front end of a program or project to identify the opportunities for meeting operational objectives, including readiness, sustainability, and improved customer satisfaction.

This two-day workshop is designed to increase your skills in developing effective cost analysis models related to your business. The workshop is based on successful experience in developing cost analysis models for space, defense, and commercial systems of all sizes and complexities.

The desired learning outcome for this workshop is to develop an understanding of the concepts, benefits, and objectives of FEA, and to develop skills for applying the process.

TOPICS

- Introduction to Front End Analysis and Overview of the Process
- Example FEA Insights
- Functional Analysis Overview and Considerations
- Equipment Parameter Quantification
- Overview of Operational Analysis and Considerations
- Support Concept Definition
- Review of Logistics Resource Requirements and Considerations
- Sensitivity Analysis Approach and Example Factors
- Performing a Sensitivity Analysis
- Critical Parameter Analysis Approach and Considerations
- Identification of Action Items and Opportunities

LIFE CYCLE COST (LCC) ANALYSIS

LCC is an analysis process that applies a combination of techniques to improve system performance and reduce cost of ownership during all phases of a program. LCC has been proven in military and commercial programs to highlight major cost drivers in the design, development, and operational phases of a project. LCC has been adapted to help architects, engineers, and facility owners make informed decisions in the early phases of development to reduce the total ownership cost of equipment, systems, and facilities.

This three-day workshop is designed to familiarize program managers, engineers, and logisticians with the objectives, methods, and tools used by industry and government to apply LCC. It provides an explanation of the methods available for estimating cost and for accomplishing cost accounting. Each method is explained, and exercises are provided to reinforce the learning process. Typical applications of the process are provided, and common problems and their solutions are discussed.

The desired learning outcome for this workshop is to develop an understanding of the methods used to establish and conduct LCC analyses, and how to put these results to work to reduce design, production, and delivery costs of modern equipment and systems.

TOPICS

- Overview of LCC Analysis
- Elements of an LCC Program
- Cost Estimating Overview
- Cost Accounting
- Cost Analysis
- Cost Breakdown Structure
- Parametric Cost Estimating
- Analogy Cost Estimating
- Bid-Based Cost Estimating
- Heuristic and Formula Pricing Based Cost Estimating
- Engineering Cost Estimating
- Interpreting Results
- Developing Effective Cost Estimates
- LCC Tools & Models

CONFIGURATION MANAGEMENT

Configuration Management (CM) is the process of managing change in an organization and capturing and controlling product data. The objective of CM is to reduce Life Cycle Cost (LCC) and improve performance of systems and equipment by effective system documentation and management.

This three-day workshop is designed to provide an understanding of the CM discipline. It discusses basic and advanced CM processes; promotes understanding and implementation of government/ industry requirements; and maintains control of engineering, production, and post-production hardware activities. Participants will learn about the five basic elements of a CM program and how they are applied throughout a system's life cycle. In addition, participants learn how to improve communications among internal organizations, subcontractors, vendors, and customers.

The desired learning outcome for this workshop is an understanding of the objectives, benefits, and overall approach for applying CM to modern systems and equipment. Workshop participants will learn about the relationship between CM and a program's systems engineering and logistic engineering activities.

TOPICS

- Overview of Configuration Management
- Government and Contractor Roles in the CM Process
- CM Benefits, Risks, and Cost Impacts
- CM Life Cycle Management Planning
- The Tools of Systems Engineering
- How CM Relates to Logistics
- Engineering Development and CM
- Configuration Identification
- Configuration Control
- Configuration Status Accounting (CSA)
- Configuration Verification and Audits
- Data Management
- CM Throughout the Program Life Cycle
- Understanding Classification of Changes and ECPs
- Functions of the Configuration Control Board and Material Review Board
- Specifying Contractual CM Requirements
- Typical CM Program Problems and Resolutions

FAILURE MODE AND EFFECTS ANALYSIS (FMEA)

Failure Mode and Effects Analysis (FMEA) is the most commonly applied deductive reasoning technique used to identify potential product and process failure modes and their subsequent effects. FMEAs commonly are applied for the following purposes:

- Eliminating product or process downtime
- Eliminating undesired failure modes through design improvements
- Reducing the effects or probability of failure mode occurrence
- Improving safety and availability of the product
- Providing critical inputs to product maintenance planning
- Improving customer satisfaction

Three days are not sufficient to make you an expert in this topic, but they do provide the opportunity to develop familiarity with the associated terms and concepts, and discuss sample application exercises that will improve your confidence level in applying the principles to your programs. Attendees will become familiar with current FMECA techniques and develop hands-on experience in applying these techniques using sample products, and documenting the results in accordance with industry standards. Attendees will discuss how to communicate and use results of other analyses to improve their team's products or processes.

The FMEA workshop can be tailored to use your company's product as the sample. This will provide attendees with relevant analysis experience. The workshop also can be tailored to focus on either the Society of Automotive Engineering (SAE) approach or Department of Defense (MIL-STD-1629A) approach.

TOPICS

- Introduction and FMEA Overview
- Definitions and Terminology
- FMEA Standards
- The FMEA Process
- Understanding Analysis Requirements
- Defining the Approach
- Developing Functional Block Diagrams
- Identifying Failure Modes, Causes, and Effects
- Estimating Probabilities, Failure Rates, and Failure Mode Ratios
- Overview of Reliability Predictions
- Identifying Compensating Provisions and Design Controls
- Evaluating Severity and Criticality
- Recommending Design Improvements
- Documenting Analysis Results
- Typical Problems and Resolutions
- Application of FMEA Process

LEVEL OF REPAIR ANALYSIS (LORA)

This three-day workshop is designed to familiarize managers, engineers, and logisticians with Level of Repair Analysis (LORA) and the U.S. Army's COMPASS model.

LORA is the accepted process for determining which maintenance actions are to be accomplished and at what level of maintenance. It takes into consideration the maintenance policy for the system and any technical, safety, operational, and cost factors related to maintenance. The results of the LORA are then used to influence provisioning, training, support equipment, facilities, and other sustainment issues.

During the three days of this workshop, we will cover the following information:

Day 1 – the principles of economic and non-economic LORA will be explained. This time is intended to form a common understanding of LORA in preparation for the exercises to be performed during the remainder of the workshop.

Day 2 - the U.S. Army COMPASS model will be explained in detail. Participants will experience working with COMPASS on a sample program. Typical challenges will be discussed and worked through as a group.

Day 3 - will be used to complete the COMPASS exercise, analyze model outputs, and accomplish sensitivity analyses.

TOPICS

- LORA Introduction and Overview
- Consideration of Non-Economic Factors
- Basics of Economic LORA
- Sources of Data to Support LORA
- Sensitivity Analysis in LORA
- Using LORA Results
- COMPASS Overview and Walkthrough
- Challenges with COMPASS
- LORA by Phase
- LORA for Fielded Systems
- Specifying LORA in Contracts
- LORA Challenges and How to Overcome Them

PRODUCT SUPPORT ANALYSIS (PSA)/LOGISTIC PRODUCT DATA (LPD)

Product Support Analysis (PSA) is a critical component of any Life-Cycle Management Program. The objective of PSA is to cause supportability requirements to be an integral part of design requirements, to understand and define the optimal support requirements, and to prepare Logistic Product Data (LPD) documentation required to build a functional support system for the product life-cycle. Some of the techniques used in the PSA include Failure Mode, Effects, and Criticality Analysis (FMECA), Fault Tree Analysis (FTA), Reliability Centered Maintenance (RCM), Maintenance Task Analysis (MTA), and Level of Repair Analysis (LORA). PSA activities integrate with specialty engineering disciplines such as Test and Evaluation, Human Factors Engineering, Reliability, and Safety programs.

This three-day workshop is designed to assist Design Engineers, Logistics Engineers, and Managers with the implementation (application) of supportability analysis to programs, emphasizing tailoring the program strategy for the program phase, defining the program PSA goals, and streamlining the approach to capture cost savings while achieving PSA objectives. Formerly governed by MIL-STD-1388-1A/2B, this workshop has been updated to give students a thorough understanding of current DoD guidance using TA-STD-0017 and GEIA-STD-0007B.

Lectures are provided on the principles of PSA and the organization and use of LPD. Workshop topics are reinforced by a series of group discussions and simple hands-on exercises.

TOPICS

- Introduction to PSA/LPD
- Overview of PSA
- Developing a Product Support Strategy
- Supportability Objectives
- Preparation and Evaluation of Alternatives
- Determination of Product Support Resource Requirements
- Product Operational Management and Suitability Assessment
- Logistic Product Data (LPD) Databases
- LPD Software Tools
- Review of PSA/LPD Results
- Understanding Candidate Items
- Task Analysis and Documentation
- FMECA and the “B Entity” Linkage
- Using Batch Calculations
- Techniques for Tech Review/QA
- Accomplishing PSA by Phase
- Specifying PSA/LPD for Contracts
- Challenges to Successful PSA/LPD

INTEGRATED LOGISTICS SUPPORT (ILS): AN INTRODUCTION

ILS is a powerful methodology for reducing Life Cycle Cost (LCC) of systems and improving customer satisfaction through improved system availability. This one-day workshop provides an introduction to the objectives and elements of ILS and its benefits to modern programs. It provides the background needed for company leaders, program managers, and engineers to understand the role ILS has in ensuring customer satisfaction and meeting profitability goals. Logisticians new to the field of ILS will benefit by developing a fundamental understanding of the elements of ILS and the tools and techniques needed for success.

The desired learning outcomes of this workshop are to develop an understanding of the origin and objectives of ILS, become familiar with the elements of ILS and the common tools used in ILS, understand the challenges of ILS, and discover where ILS is going.

TOPICS

- Understanding Logistics and the Objectives of ILS
- The Elements of ILS
- Tools of Successful ILS Programs
- Integrating ILS with Program Management
- ILS, Engineering, and Product Support
- Performance Based Logistics (PBL)
- How to Capitalize on the Benefits
- Dealing with the Challenges of ILS
- What it Takes to Be Successful

INTEGRATED LOGISTICS SUPPORT (ILS) – PUTTING IT ALL TOGETHER

Integrated Logistic Support (ILS) is an integration of the traditional elements of logistics to provide cost-effective support to the warfighter/end user of complex systems and equipment. The effective application of ILS resources is essential to any program's success, particularly when applied in the early phases. Although the concept of "logistics" has been around since the dawn of man, the need for logistics and its increasingly effective execution has become more and more sophisticated in recent years. The two world wars fought in the 20th century saw the beginning of logistics operations and activities on a scale never before seen. Although effective at winning the wars, logistics during that time was largely accomplished by brute force, with little emphasis on cost-effectiveness and integration of logistic activities. Modern military program budgets and commercial customer demands require a change to the brute force approach.

This three-day workshop is designed to assist logisticians, logistic elements specialists, program managers, logistic managers, systems engineers, and design engineers in developing an understanding of ILS programs and their role in support of a successful ILS program. This workshop is designed to clarify the issues and demonstrate how to integrate efforts so the real impact of ILS can be realized through the development of an effective and efficient logistics program.

At the end of this course, the participant will have an operational understanding of ILS and the tools available to effectively implement an ILS program.

TOPICS

- Overview of ILS
- Background of ILS in DoD
- ILS Elements
- ILS Requirements Analysis
- Vendor/Prime/Contractor Relations in ILS
- Disciplines Required to Support ILS
- ILS Tools and Techniques
- Integration Opportunities (Across ILS Elements, the System, and the Company)
- Performance Based Logistics
- Making ILS Work for You
- Challenges in Modern ILS

PERFORMANCE BASED LOGISTICS (PBL)

Performance Based Logistics (PBL) is the current approach for reducing the logistic footprint in operational environments while increasing overall warfighting capability and reducing cost. It calls for establishing long-term agreements between the developer and the warfighter on exactly what the support requirements are and how they will be satisfied. These Performance Based Agreements (PBAs) are then broken down into commitments between the program office, internal DoD support activities, and contractors to provide support over the life of the system in peacetime and wartime.

This three-day workshop is designed to increase effectiveness in establishing and operating PBL programs. It is based on DoD and DoN guidance on PBL as well as experience in a series of successful PBL-based programs. The workshop will help participants develop confidence in working on PBL issues, understand current PBL guidance and public law related to PBL, and learn how to relate PBL metrics to warfighter needs.

To be effective, each of the participants in a PBL program must understand the performance criteria involved and how they are measured. There are two upper levels of supportability performance measures: Total Ownership Cost and Operational Availability. These, in turn, are controlled by a wide range of lower-level parameters, such as Mean Time Between Failure, Mean Time to Repair, Diagnostic Effectiveness, Waiting Time, etc. This workshop will focus on the relationships between the upper-level parameters that contribute to top-level metrics. It will address how these parameters are calculated and how they are measured.

The workshop will help participants develop confidence in working PBL issues, understand current PBL guidance and public law related to PBL, and learn how to relate PBL metrics to warfighter needs.

TOPICS

- Introduction to PBL
- DoD/DoN PBL Guidance
- U.S. Code Title 10
- PBL Details
- Introduction to Business Case Analysis (BCA)
- Performance Based Agreements (PBAs)
- Introduction to PBL Metrics
- Systems Analysis and PBL Metrics
- PBL-Related Contract Incentives
- Measuring Logistic Performance (Legacy and New Systems)
- Impediments to PBL and Overcoming Them

PERFORMANCE BASED LOGISTICS (PBL) METRICS

Performance Based Logistics (PBL) is DoD's preferred approach for product support implementation (DoD Directive 5000.1). As acquisition budgets are reduced, it is the Program Manager's responsibility to develop and implement PBL strategies to optimize system availability while reducing cost and logistic foot print. Failure to develop an effective PBL program can result in excessive support costs for the program.

This two-day course is designed to develop the skills of logistic engineers, designers, and systems engineers in setting meaningful logistic performance measures and evaluating the performance of systems against those measures during operations. It provides an overview of forecasting and predicting logistic requirements for operations. At the completion of this course, the participant will have a working knowledge of PBL and how to develop meaningful metrics for their programs.

This workshop will provide participants with forecasting and predicting logistic performance of operational systems required for understanding of operational system data repositories, the Design Reference Mission Profile and the current status of operational assets. The three-day workshop is designed to enable experienced logisticians to more effectively establish performance metrics and predict operational system performance against those metrics.

TOPICS

- Overview and Introduction
- Principles of Metrics
- Performance Based Logistics (PBL) Overview
- Systems Engineering Overview
- System Cost Analysis
- Design Reference Mission Profile (DRMP)
- Factors Affecting Operational Availability (Ao)
- Obsolescence Impacts on Readiness
- COTS and NDI Impacts on Operational Support
- Performing Trend Analysis on Logistic Metrics
- Spares Modeling and Predictions
- Wrap Up and Critique

PERFORMANCE BASED SUPPORTABILITY (PBS)

Performance Based Supportability (PBS) is a systems approach to achieving high levels of customer satisfaction by designing the end products and their related support to meet supportability performance measures. PBS involves six steps, beginning with requirements definition and ending with product improvements to operational systems.

This three-day workshop is designed to familiarize participants with the background and approach for applying PBS. This course is designed to help engineers and logisticians develop the detailed skills involved in applying each of the steps of PBS to programs. The approach described is directly applicable to programs of all sizes in the public and private sectors. It is particularly well-suited for application in the Integrated Product Team (IPT) environment.

It is expected that participation in the workshop will provide an understanding of what is involved in applying PBS. This workshop is designed to help logisticians develop the detailed skills involved in applying each of the steps of PBS to programs.

TOPICS

- Introduction and Background of PBS
- Creating an Understanding of the Methodology and Benefits of Accomplishing PBS
- The Six Steps of PBS
  - Step 1 – Define specific operational support requirements
  - Step 2 – Determine design parameters that control operational support metrics under PBS
  - Step 3 – Control design parameters to achieve required level of support performance under PBS
  - Step 4 – Design support capability to maintain design parameters at objective levels
  - Step 5 – Acquire and operate support system
  - Step 6 – Continually improve the product and its related support system
- Summary of PBS
- Challenges in Applying PBS

MAINTENANCE TASK ANALYSIS (MTA)

Maintenance Task Analysis (MTA) is the identification of the steps, spares and materials, tools, support equipment, and personnel skill levels, as well as any facility requirements that need to be considered for an identified maintenance task. Also included in the MTA process is an estimate of the active maintenance and elapsed times required for the performance of each task. MTAs address both corrective and preventative maintenance tasks and, when taken as a comprehensive set, identify all physical resources required to successfully accomplish maintenance and support for a system.

MTAs commonly are performed using the guidance of TA-STD-0017, Activity 12, for the following purposes:

- Minimizing support system response time
- Maintaining equipment's inherent reliability though preventive maintenance
- Improving safety and availability of the product
- Providing critical inputs to product provisioning, technical documentation and training planning

This five-day workshop is designed to familiarize participants with the background and approach for conducting MTA. This course is designed to help engineers and logisticians develop the detailed skills involved in conducting MTA and applying the results to acquisition programs. The approach described is directly applicable to programs of all sizes in the public and private sectors to understand support system requirements. It is particularly well-suited for application in the Integrated Product Team (IPT) environment, and on programs that have a Logistics Product Data (LPD) requirement.

Attendees will become familiar with current, effective MTA techniques and develop hands-on experience in applying these techniques, using sample products and documenting the results in accordance with industry standards. Attendees will discuss how to communicate and use results of these analyses to improve their team's products or processes.

TOPICS

- Introduction and MTA Overview
- Definitions and Terminology
- MTA Standards/Guidance
- The MTA Process
- Understanding Analysis Requirements
    - Research Functional Requirements/Task Inventory results
- Defining the Approach
    - Understanding the scope of maintenance to be addressed
    - Characterizing analysis skills required
    - Identifying source data needs
- Documenting Analysis Results
    - Overview of LPD data elements and functionality
    - Support of Maintenance Planning
        - LPD Summaries (LSA Reports LSA-004, LSA-024, LSA-019, etc.)
        - LORA, LCC Analysis, Supply Support (PPL)
- Recommending Design and Support System Improvements
    - Highlight design alternatives to optimize support system
    - Identify New/Critical Resources

    - Identify new Skills/Training requirements
    - Identify Standardization opportunities
- Typical Problems and Resolutions
- Application of MTA Process