Important Reliability, Maintainability & Supportability Courses

Logistics Engineering Workshop

This hands on workshop will familiarize participants with Reliability Maintainability and Availability (RM&A) statistical tools. Methodologies for RM&A analysis, prediction, allocation, demonstration and measurement will also be presented. In addition, Logistics Engineering interface disciplines will be covered, including Quality Control, Human Factors, Safety and Operations Analysis. **Note**: For RM&A Statistical Tools exercises, participants must bring an electronic hand-held calculator with a scientific-engineering keyboard.
Instructor: John Langford

Implementing Performance Based Logistics

Fast-paced workshop integrates DoD policies and practices for implementing Performance Based Logistics (PBL) through enhanced Reliability, Maintainability and Supportability. Highlights key PBL concepts and motivation for government and industry to improve sustainment strategies for defense weapon systems. Includes DoD guidance plus examples from new acquisition programs and legacy systems. Incorporates hands-on exercises to reinforce principles like tailoring RMS metrics for Performance-Based Agreements and incentivizing Product Support Integrators. Also includes demonstration of online resources for Life-Cycle Logistics System Management.
Instructor: Steve Brown

Systems Engineering: The Cornerstone For Logistical Success

This course features systems engineering and contractual tools relevant to performance based systems **e**ngineering. It demonstrates linkage between critical system effectiveness parameters and metrics for performance incentives; describes key indicators of logistics system responsiveness and effectiveness, plus risk analysis and assessment; highlights impacts on Life-Cycle Cost and effectiveness of logistics support infrastructure; and includes details of performance incentive schedules and evaluation methodology for systems engineering elements. **Note**: For exercises, participants must bring an electronic hand-held calculator with a scientific-engineering keyboard.
Instructor: John Langford

Reliability Engineering DFR Training Module

This workshop is intended for electrical and mechanical design engineers and managers who desire to understand how to design for reliability (DFR). The objectives of this workshop include: 1) Defining reliability and when to apply reliability into the design effort; 2) Translating failure data into basic reliability information; 3) Explaining the various reliability distributions including the Weibull distribution basics; and 4) Describing how to make reliability better and the various methods of reliability testing. You will benefit from this training by learning how to reduce product warranty costs, improve customer satisfaction through detailed requirements specifications, develop test plans as part of the Product Development Process (PDP) that

minimize risks, and provide accurate budgets with decreased development cycle times meeting program schedule goals and customer commitment dates.
Instructor: Lou Gullo

Relating Reliability, Maintainability & Supportability to Improving Readiness and Reducing Life Cycle Costs

This course starts the coverage of relationships between operational availability (Ao) and readiness rates, how reliability, maintainability and supportability impact Ao, a listing of metrics that drive readiness and Ao and finishes with a diagram showing how readiness impacts system effectiveness and operational effectiveness. Then it will cover an earliest-on reliability, availability, maintainability (RAM) and supportability trade-off analysis tool useful for analyzing requirements. The next topics will cover RAM driven cost effective sparing to availability, maintenance concept optimization and life cycle support costs and analysis concepts for managing the reduction of life cycle costs in acquisitions. A set of existing, linked models that can significantly improve DoD acquisition logistics policy implementation during equipment development prior to fielding is a part of this topic. The final topic will cover depot level source of repair and business case analyses driven by RAM and supportability cost data.
Instructor: Bernard Price

A Top-Level, Integrated Approach to Supportability Engineering

The logistician faces many questions: When and what Supportability Analyses are needed? How do I make, communicate and document the logistics supportability decisions necessary to effectively & efficiently support the system? How can I generate defensible supportability engineering requirements compatible with my logistics supportability decisions? What further supportability tasks & data are needed in subsequent phases to lower logistics risk? How do I get these on contract? Can [and should] logistics risk be further reduced by testing before system deployment/fielding? How should I effectively interface with the design engineers, program managers, budgetary analysts, contract specialists and testers to accomplish all this and more in the normal course of the systems acquisition process?

Good logistics is disciplined common sense. A totally integrated effort is necessary to conceive, determine, defend, and implement a logistics support program. This session demonstrates a common sense tool that provides the discipline, traceability and [more importantly] ability to integrate and defend the components of a solid supportability program.

This session will first introduce the tool and then apply the tool to a contemporary case study that will address real-world challenges and applications.
Instructor: Paul McIlvane