**Welcome to Demonstrate Product Support Capability**

This module introduces the role of the life cycle logistician (LCL) in demonstrating product support capability. This process is conducted during the System Capability and Manufacturing Process Demonstration portion of the Engineering and Manufacturing Development (EMD) phase.

Select the Play button to listen to a message from the Test and Evaluation Engineer.

Select the image to access the interactive wall chart website.

Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework
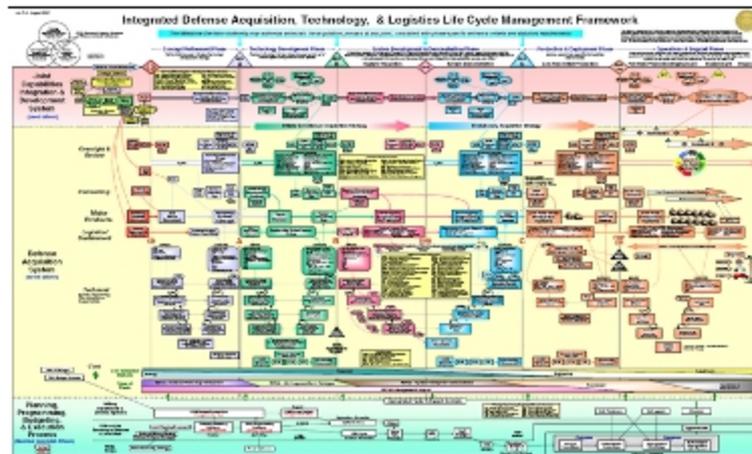
Closed Captioning

Test and Evaluation Engineer: Thanks for stopping by the Strike Talon Test and Evaluation, or T&E, Office. With Strike Talon moving into the System Capability & Manufacturing Process Demonstration portion of the Engineering and Manufacturing Development (EMD) phase, T&E will play a big role in preparing Strike Talon for the Milestone C review. T&E is the process by which a system or components are compared against requirements and specifications through testing. The results are evaluated to assess the progress of design, performance and supportability. Logistics readiness is an important test area – not only for the system performance and supportability but also for the long-term cost estimates needed to determine the program's affordability.

Up until this point, T&E has been an enabler, providing essential information to decision-makers and assessing attainment of technical performance parameters. Our pre-Milestone A efforts were mainly focused on developing a T&E strategy to incorporate modeling and simulation, risk management techniques and early involvement of testers and evaluators. Milestone B required a formal Test and Evaluation Master Plan (TEMP) be submitted to the Undersecretary of Defense for Acquisition, Technology and Logistics and the Director of Operational Test and Evaluation. Our pre-Milestone C efforts will determine whether Strike Talon is operationally effective, suitable, sustainable, survivable and affordable for its intended use.

Now that a prototype is available and we have successfully completed the Critical Design Review, we can do the system-level developmental test and evaluation, DT&E, which will validate Strike Talon's actual performance in its operating environment.

A key component of DT&E is verification of the key performance parameters (KPP). For logistics, the mandatory KPP is availability (composed of two components – materiel availability and operational availability) and the supporting key system attributes of materiel reliability and ownership cost. We will test each of these areas to see if the threshold values are met. We will also look at other areas including the logistics footprint, prognostics/diagnostics, maintenance plans and the product support elements to determine if Strike Talon meets its overall sustainability goals.

It is important to detect and report deficiencies so they can be fixed. All of this data is important in

determining an overall cost structure because Strike Talon cannot move past its Milestone C review unless all funding has been identified for its continued support.

As you can tell, we will be spending a lot of time together preparing for and completing these T&E reviews. Hopefully, all of our hard work throughout the program will pay off in highly successful T&E results.

Why Demonstrate Product Support Capabilities?

Product support capability is demonstrated as part of the fifth step in the life cycle management framework. The main goals of this effort are to ensure operational supportability; ensure affordability and protection of critical program information; and demonstrate system integration, interoperability, safety, and utility.

During this portion of the Engineering and Manufacturing Development phase, the LCL is responsible for accomplishing the following:

- Fully defining/refining the product support strategy for all significant support elements
- Ensuring the system design incorporates the critical supportability/logistics requirements
- Refining logistics test points in the Test and Evaluation Master Plan (TEMP)
- Establish and verify product support baselines
- Demonstrate reliability, availability maintainability and sustainment features

Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System
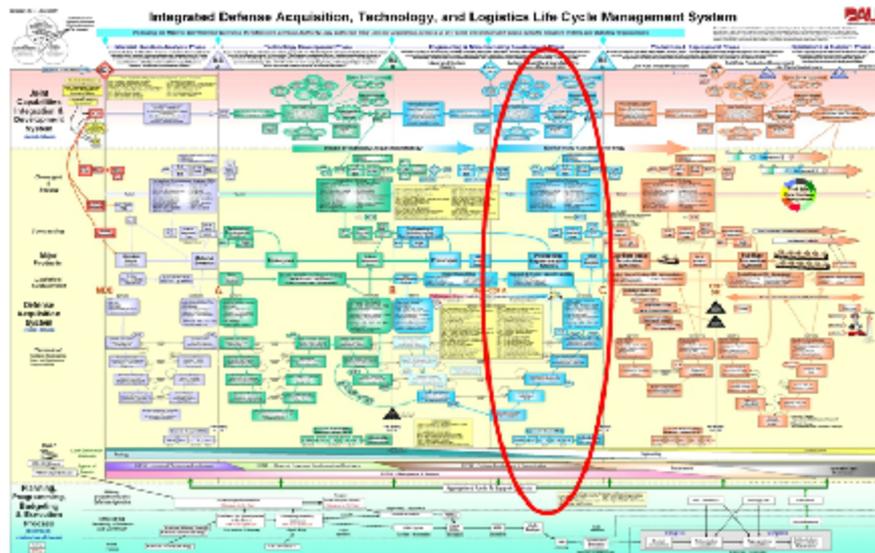
Output

Major outputs from the System Capability and Manufacturing Process Demonstration effort of EMD include:

- Test Readiness Review (TRR)
- Functional Configuration Audit (FCA)
- System Verification Review (SVR)
- Production Readiness Review (PRR)
- Initial product baseline
- Technology Readiness Assessment (TRA)
- Inputs to the Capability Production Document (CPD)
- Life Cycle Sustainment Plan (LCSP)

Objectives

Upon completion of this module, you should be able to:

- Identify the key policies, regulations, and guidance that influence the demonstration of planned product support capability.

- Differentiate between the roles of the Program Manager (PM), LCL or Product Support Manager and other individuals and/or organizations in the process of demonstrating product support capabilities.

- Identify the management processes the LCL uses when demonstrating product support capability, including fully defining/refining the product support strategy and refining logistics test points in the TEMP.

- Identify the technical activities associated with demonstrating product support capability, including collecting and evaluating system performance, cost and maintenance data to determine the need for changes to system configuration; and demonstrating acceptable interoperability and operational supportability.

- Identify the kinds of metrics that are defined and used during demonstration of planned product support capabilities.

Module Contents

This module consists of five lessons. Each emphasizes the LCL's perspective and role in the practical application of the concepts presented. Select each lesson to review the key areas of focus.

- [Regulatory Environment](#)
- [Oversight and Review](#)
- [Management Processes](#)
- [Technical Activities](#)
- [Metrics](#)

Popup Text

Regulatory Environment

This lesson addresses what the LCL or PSM should consider to ensure that the demonstration of product support capability complies with a number of key policies, regulations, and guidance.

Oversight and Review

This lesson addresses the various support systems and organizations the LCL/PSM should be familiar with to ensure there is sufficient support for a product. The LCL/PSM will work together with key product support providers during the System Capability and Manufacturing Process Demonstration portion of the Engineering and Manufacturing Development phase.

Management Processes

This lesson addresses the various management processes used during the System Capability and Manufacturing Process Demonstration portion of the Engineering and Manufacturing Development phase. The LCL/PSM must actively manage change and continuously refine the product support strategy to help ensure product performance.

Technical Activities

This lesson addresses various technical activities the LCL/PSM may need to use during the System Capability and Manufacturing Process Demonstration portion of the Engineering and Manufacturing Development phase. During this, things like modeling and simulation combined with supportability analysis are important best practices to design and develop the individual logistics elements required to implement the support strategy. This will ensure that the most efficient processes are in place for support of the product once it is in use.

Metrics

This lesson will address some important metric issues, such as metrics selection and data collection. For the LCL/PSM, this will help to demonstrate the support capabilities while identifying any unnecessary processes or wasted resources.

Lesson Completion

You have completed the content for this lesson.

To continue, select another lesson from the Table of Contents on the left.

If you have closed or hidden the Table of Contents, click the Show TOC button at the top in the Atlas navigation bar.