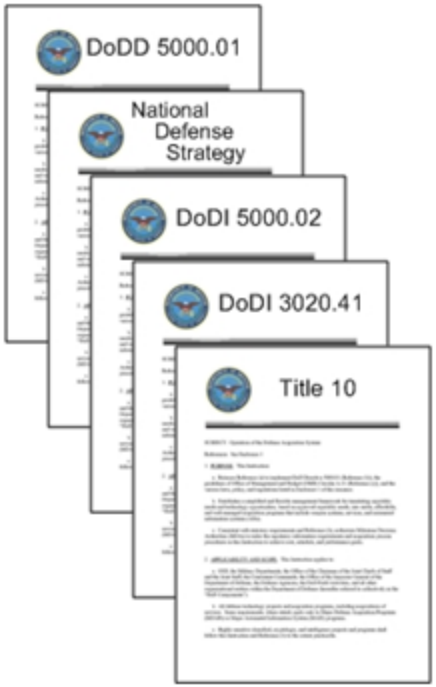
Welcome to Regulatory Environment

This lesson explains various regulatory elements, such as legal documents or Department of Defense (DoD) instructions, with which the LCL may need to be familiar when developing the initial product support strategy. Knowing and applying these statutory, regulatory, and policy boundaries and constraints helps the LCL avoid legal and procedural problems during the very important Technology Development phase.



Objectives

After finishing this lesson, you will be able to:

- Identify the key policies, regulations, and guidance that influence the LCL as they pertain to the development of an initial product strategy.
- Identify the legal and contractual requirements that influence the product support strategy development.
- Recognize when legal and regulatory elements, such as contractual relationships and focused logistics, shape the product support strategy.

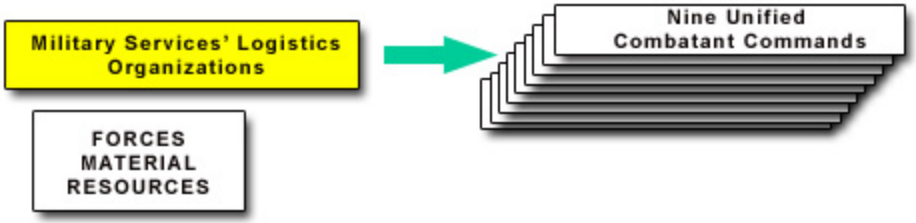
You will learn the LCL's role in the regulatory environment that influences the development of the initial product support strategy.

Public Law

Among other things, product support planning is bounded by provisions of public law. Title 10 of the United States Code, Part IV, deals with issues of service, supply, and procurement. It provides legal direction in such areas as:

- Sustainment planning for major weapon systems
- Logistics organizational structures
- Use of commercial items and services
- Military procurement
- Cataloging and standardization
- Budgeting and funding
- Inventory reporting

Title 10 covers general responsibilities of the Military Services to provide logistics support to the Combatant Commanders.



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Long Description

Picture of a box (titled “Military Services’ Logistics Organizations”) underpinned with the Forces’ Material Resources connected by an arrow to the nine unified combatant commands (indicated by a stack of nine boxes).

DoD Directive 5000.01, The Defense Acquisition System

In addition to public law, DoD regulations provide additional boundary conditions on weapon system acquisition. Recall that DoDD 5000.01 provides the management principles, mandatory policies and procedures for managing all acquisition programs within the Defense Acquisition System. The primary objective of Defense acquisition is to acquire quality products that satisfy user needs with measurable improvements to mission capability and operational support, in a timely manner, and at a fair and reasonable price. With this in mind, the LCL is guided by two particular policy statements within the 5000.01:

E1.1.16. Performance-Based Acquisition. To maximize competition, innovation, and interoperability, and to enable greater flexibility in capitalizing on commercial technologies to reduce costs, acquisition managers shall consider and ***use performance-based strategies for acquiring and sustaining products and services whenever feasible*** [emphasis added]. For products, this includes all new procurements and major modifications and upgrades, as well as re-procurement of systems, sub-systems, and spares that are procured beyond the initial production contract award.

E1.1.17. Performance Based Life Cycle Product Support. PMs shall develop and implement performance based life cycle product support strategies that optimize total system availability while minimizing cost and logistics footprint. Trade-off decisions shall involve cost, useful service, and effectiveness. Sustainment strategies shall include the best use of public and private sector capabilities through government/industry partnering initiatives, in accordance with statutory requirements.

KEY: LCLs ensure product support strategies comply fully with DoD acquisition process direction.

Popup Text

Defense Acquisition System

Defense Acquisition System: the management process by which the Department of Defense provides effective, affordable, and timely systems to the users.

DoD Instruction 5000.02, Operation of the Defense Acquisition System

The DoDI 5000.02 is the implementing instruction for the 5000.01. It establishes a simplified and flexible management framework for translating approved capability needs and technology opportunities into stable, affordable, and well-managed acquisition programs that include weapon systems, support services, and automated information systems (AISs).

For the LCL, the 5000.02 contains guidelines for the life cycle sustainment of DoD weapon systems and equipment. Sustainment includes supply, maintenance, transportation, sustaining engineering, data management, configuration management, manpower, personnel, training, habitability, survivability, environment, safety (including explosives safety), occupational health, protection of critical program information, anti-tamper provisions, and information technology (IT), including National Security Systems (NSS), supportability and interoperability functions.

KEY: LCLs ensure product support strategies provide for long-term sustainment of DoD weapon systems and equipment.

KEY: LCLs ensure product support strategies meet the expectations of the JCIDS Logistics Functional Capabilities Board.

DoD Instruction 5000.02, Cont.

Despite the fact that weapon system design is far from mature during Technology Development, planning for sustainment should already be underway. Select each section below for information and guidance 5000.02 provides about sustainment and planning during this phase. Your strategy must be documented in the LCSP. There is a mandatory outline as well as mandatory tables and figures.

Sustainment

PM Responsibilities

Popup Text

Sustainment

- Effective sustainment of weapon systems begins with the design and development of reliable and maintainable systems through the continuous application of a robust systems engineering methodology.
- The Services, in conjunction with users, conduct continuing reviews of sustainment strategies. They compare performance expectations as defined in performance agreements against actual performance measures.
- Sustainment strategies evolve throughout the life cycle, particularly during development of subsequent increments of an evolutionary acquisition strategy.

Program Manager Responsibilities

PMs work with users to document performance and support requirements in performance agreements. These agreements specify objective outcomes, measures, resource commitments, and stakeholder responsibilities. The DoD Components initiate system modifications to improve performance and reduce ownership costs.

PMs optimize operational readiness through affordable, integrated, embedded diagnostics and prognostics, and embedded training and testing; serialized item management; automatic identification technology (AIT); and iterative technology refreshment.

DoD Instruction 5000.02, Cont.

In addition to guidance on life cycle sustainment considerations, the DoDI 5000.02 focuses the LCL's supportability planning efforts responsibilities on user outcomes as described in Joint Capabilities Integration and Development System (JCIDS) requirements documents. Below are seven planning considerations the LCL must address when developing the initial product support strategy.

- Mission Capabilities
- Availability Requirements
- Reliability
- Maintainability
- Logistics
- Performance
- Support

Popup Text

Mission Capabilities

Identification of the processes and metrics driving performance-based outcomes.

Availability Requirements

A detailed assessment of the requirements for the system to operate successfully in the mission operational environment (for example, an aircraft needing to be fully or partially mission capable 85% of the time), and the necessary support requirements to achieve that objective.

Reliability

Given the operational environment and combatant commander availability requirements, define the logistics reliability targets and the corresponding sustainment infrastructure necessary to ensure achievement of the reliability objectives.

Maintainability

Comprehensive identification of both projected maintenance strategy, including diagnostics, prognostics, maintenance duration targets, and similar measures.

Logistics

Logistics manpower and personnel requirements, both organic and contractor sourced. Continued refinement of life cycle cost estimates.

Performance

Support-related performance and acceptance criteria to be demonstrated during planned testing and through modeling and simulation.

The collection, analysis, and evaluation of system performance and maintenance performance data to determine the need for and prescribe changes to the system configuration, maintenance support structure, and maintenance resource requirements.

Support

Continued inclusion of logistics support considerations in detailed design reviews to include life cycle costs, and characteristics such as openness of design, upgradeability, modularity, testability, and commercial technology insertion.

Knowledge Review

Which of the following deals with issues of service, supply, and procurement?

- [ ] DoDI 5000.02
- [x] Title 10 of the USC, Part IV
- [ ] Defense Acquisition Guidebook
- [ ] DoD Regulation 4140.1R

Check Answer

Title 10 of the USC, Part IV deals with issues of service, suppy, and procurement.

Public Law and Product Support Strategy

LCLs should understand how the legal requirements of public law apply to development of the product support strategy. Two examples are:

1. Core Depot Level Maintenance and Repair Capabilities: 10 U.S.C. 2464 requires core logistics capability that is government-owned and government operated (including government personnel and government-owned and government-operated equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to mobilization, national defense contingency situations, or other emergency requirements.
2. Depot Maintenance 50 Percent Limitation Requirement: 10 U.S.C. 2466 requires not more than 50 percent of the funds made available in a fiscal year to a military department or defense agency for depot-level maintenance and repair workload be used to contract for performance by non-Federal government personnel.

The LCL should not undertake depot maintenance source of support decisions without consulting accountable acquisition and logistics officials to ensure compliance with this statutory requirement.

National Defense Strategy and Product Support Strategies

Changes in national defense strategy can have direct implications on developing product support strategies. Major output from this phase of the life cycle includes:

More rapidly deployable forces means lighter, smaller yet more lethal.

Advanced technology mobility assets mean fast sealift, short take off and landing aircraft, and aerial delivery of re-supply.

Less dependence on fixed reception ports means:

- Overcome anti-access issues
- Delivery directly to operational area
- Sustainment from offshore

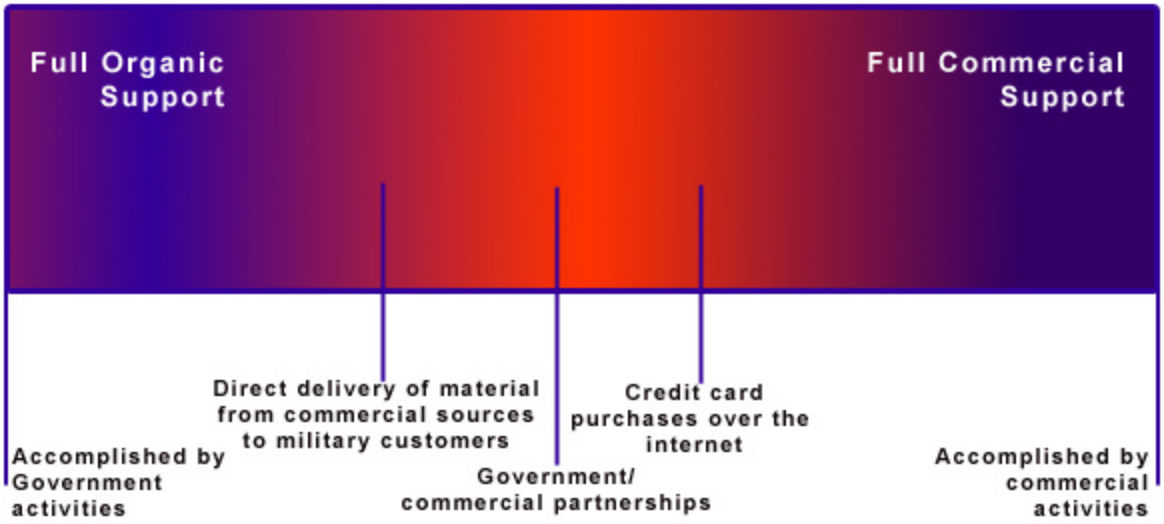
Relocation of forces worldwide to make them more flexible and available. For example, relocating forces from Korea DMZ; repositioning forces to eastern Europe; or reconstitution of prepositioning programs.

BOTTOM LINE: LCLs must continue to develop operationally-oriented capabilities to enhance rapid deployment and sustainment in concert with changing concepts of operation.

Contractual Relationships and Product Support Strategy

Changes in contractual relationships with private sector entities can impact the LCL's product support strategy.

Logistics operations in the DoD can benefit from public-private partnerships that combine the best of commercial processes and practices with the Department's own extensive maintenance capabilities. It is in the mutual interests of both sectors to pursue the establishment and effective operation of partnerships across the widest possible segment of workload requirements.



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Long Description

Picture indicating the full spectrum of public-private partnerships, from full organic support to full commercial support. With full organic support, all activities are accomplished by the government. With full commercial support, all activities are accomplished by commercial entities. Along the spectrum are sample activities: direct delivery of material from commercial sources to military customers is toward the full organic support end; government/ commercial partnerships is near the middle of the spectrum; and credit card purchases over the Internet is toward the full commercial support end.

Focused Logistics and Product Support Strategy

Public laws are not the only considerations the LCLs must address when developing their product support strategies. For example, the LCL must consider the tenets of the joint focused logistics concept:

- Progress in using information technology as well as other technologies to improve logistics capabilities will continue to change the conduct of military operations. Resources available for logistics initiatives will be constrained. The rate of progress will not be uniform across the various elements of logistics.
- DoD Net Centric Enterprise Services and the necessary assured communications bandwidth will be available to allow forward-stationed and deployed forces to employ advances in logistics-related information technology.
- Military Service cultures will evolve to overcome reluctance to accept a collaborative information environment.
- The "strategic mobility triad"—airlift, sealift, and pre-positioning—will remain the backbone of U.S. capability for deployment, employment, sustainment, and redeployment. However, sea basing will have a growing role in sustaining the joint force.
- The robust partnership with U.S. commercial industry will continue. Other commercial, interagency, host nation, and multinational logistics support partnerships will be established and available when required.
- Current legislative restrictions to multinational logistics cooperation will be reduced or eliminated.
- The U.S. industrial base will have sufficient capacity to sustain joint forces in peace and will have surge capacity to support the full range of military operations.

Defense Acquisition Guidebook (DAG) and Product Support Strategy

The product support strategy addresses how the PM and other responsible organizations will carry out ongoing support assessment of the fielded system. Life cycle assessment identifies and addresses performance, readiness, ownership cost, and support issues including:

- Pre- and post-deployment evaluations that assess system support performance.
- Product support strategy effectiveness.
- Technology insertion for continuous modernization and product support affordability improvements.

Life cycle assessment should be consistent with the written charter of the program manager's authority, responsibilities, and accountability for accomplishing approved program objectives.

Life cycle support strategy evaluations are the primary means for conducting the life cycle assessment required by the program manager.

To learn more about the DAG, click here.

Defense Acqusition Guidebook (DAG) and Product Support Strategy, Cont.

The DAG prescribes actions that affect the LCL during product support strategy planning in the Technology Development phase. Select each to learn more:

- Develop
- Include
- Document
- Identify
- Sourcing
- Describe

Popup Text

Develop

Development of the long-term performance-based support concept including selection of critical support parameters, metrics, and incentives.

Include

Inclusion of stakeholders (including potential support providers) on the integrated product/ process team (IPT).

Document

Documentation of available analytical tools - such as performance testing, supportability testing/ demonstration, technical data validation, and maintenance assessments.

Identify

Identify opportunities for support system redundancy and ease of reconfiguration.

Sourcing

Source the data to demonstrate reliability, maintainability and supportability approaches.

Describe

Describe the Failure Modes and Effects Criticality Analysis (FMECA) to help identify the ways in which systems can fail, performance consequences, and the support remedies for system failures. Establish need for the level of repair analysis (LORA). This can include:

- Identify maintenance aspects of the support system's architecture, including maintenance times and

resources.

- Document opportunities for diagnostics, prognostics, failure trend analysis, electronic portable or point-of-maintenance aids, corrosion mitigation, serial item management, automatic identification technology, and data-driven interactive maintenance training and Performance Monitoring/ Fault Localization (PM/ FL).
- Establish strategy for phase-out, demilitarization, and disposal.

Other Regulations

Additional relevant regulatory documents include:

- DoD Regulation 4140.1-R: Supply Chain Materiel Management Regulation, May 23, 2003 – Supply chain management policies
- DoD Directive 4151.18: Maintenance of Military Materiel, March 31, 2004 – Basic maintenance policies
- DoD Directive 5158.4: United States Transportation Command, July 27, 2007 Transportation organizations
- DoD Directive 4500.09E: Transportation and Traffic Management, September 11, 2007 – Material and personnel movement policies
- DoD 4160.21M: Defense Materiel Disposition Manual, August 1997 – Material disposal guidelines
- DoD Instruction 3020.41: Contractor Personnel Authorized to Accompany U.S. Armed Forces, October 3, 2005 – Contractors on the battlefield.

KEY: LCLs ensure product support strategies comply with applicable DoD Instructions, manuals, and regulations.

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Long Description

KEY: LCLs ensure product support strategies comply with applicable DoD Instructions, manuals, and regulations.

Knowledge Review

Which public law requires a government-owned and government-operated ready and controlled source of technical competence and resources necessary to ensure effective and timely response to mobilization, national defense contingency situations, or other emergency requirements?

- [ ] Maintenance of Military Materiel
- [ ] Materiel Management Policy
- [ ] Depot Maintenance 50 Percent Limitation Requirement
- [x] Core Logistics Capability

Check Answer

Core Logistics Capability requires a government-owned and government-operated ready and controlled source of technical competence and resources necessary to ensure effective and timely response to mobilization, national defense contingency situations, or other emergency requirements.

Regulatory Environment Summary

You have completed this lesson and should now be able to:

- Identify the key policies, regulations, and guidance that influence the LCL as they pertain to the development of initial product strategy.
- Identify the legal and contractual requirements that influence the product support strategy development.
- Recognize the legal and regulatory elements, such as contractual relationships and focused logistics, and how those elements shape the product support strategy.

Lesson Completion

You have completed the content for this lesson.

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