





Lunch and Learn Series



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Lunch and Learn Series
Session 1

Let's Talk Logistics

James V. Jones
Logistics Management Associates

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LnL Presentation Series



- Session 1
 - Provide foundation of understanding
 - Put lots of issues in context
 - Attempt to simplify a complex process
 - Introduce new ideas
 - Provide point of reference for future Sessions

- Future Sessions
 - Focus on specific issues
 - Provide in depth look at processes
 - Expand scope of knowledge

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LnL Session 1 Critique



- Presentation
 - Too much stuff
 - Presented too fast
 - More questions than solutions
 - Lots of abbreviations and terms not defined
 - Need detailed presentation on each topic

- Presenter
 - Very rude and opinionated
 - Like drinking from a fire hose
 - Ruined a good a lunch
 - Gave me a headache

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Reality Check!



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What is Logistics?

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Logistics

Having:

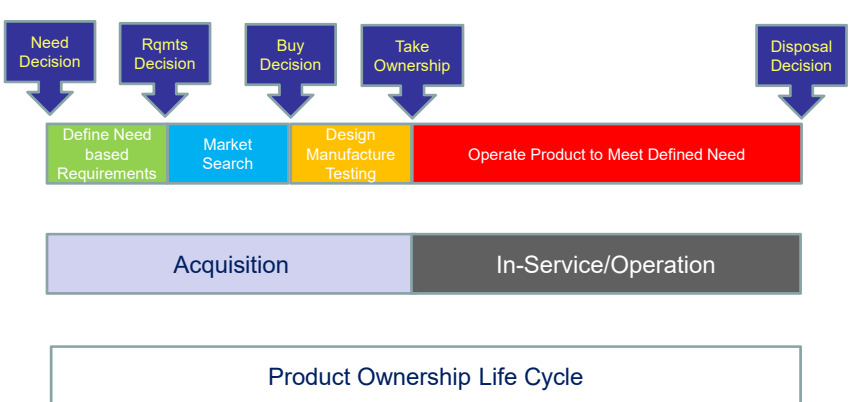
- the right thing
- in the right quantity
- having the right quality
- at the right place
- at the right time
- for a reasonable cost when possible.

This means “logistics” responds to predetermined future requirements and needs.

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Product Ownership Life



The diagram illustrates the Product Ownership Life Cycle through several stages and decision points:

- Decision Points (top row):** Need Decision, Rqmts Decision, Buy Decision, Take Ownership, and Disposal Decision.
- Process Stages (middle row):**
 - Define Need based Requirements (green)
 - Market Search (blue)
 - Design Manufacture Testing (yellow)
 - Operate Product to Meet Defined Need (red)
- Ownership Phases (bottom row):**
 - Acquisition (light purple)
 - In-Service/Operation (dark grey)

Product Ownership Life Cycle

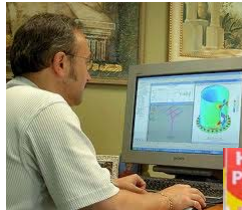
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Two Kinds of Logistics First – Acquisition Logistics



Design or Purchase a Supportable Product



Develop a Support Solution



Procure and Establish a Support Capability

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Two Kinds of Logistics Second – Operational Sustainment Logistics



Operate the Solution
And
Continuously Improve the Infrastructure



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Department of Defense DIRECTIVE

5000.01 The Defense Acquisition System

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Cost and Affordability

E1.4. Cost and Affordability. All participants in the acquisition system shall recognize the reality of fiscal constraints. They shall view cost as an independent variable, and the DoD Components shall plan programs based on realistic projections of the dollars and manpower likely to be available in future years. To the greatest extent possible, the Material Decision Authority (MDA) shall identify the total ownership costs, and at a minimum, the major drivers of total ownership costs. The user shall address affordability in establishing capability needs.

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Systems Engineering

E1.27. Systems Engineering. Acquisition programs shall be managed through the application of a systems engineering approach that optimizes total system performance and minimizes total ownership costs. A modular, open-systems approach shall be employed, where feasible.

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Total Systems Approach

E1.29. Total Systems Approach. The Program Manager shall be the single point of accountability for accomplishing program objectives for total life-cycle systems management, including sustainment. The Program Manager shall apply human systems integration to optimize total system performance (hardware, software, and human), operational effectiveness, and suitability, survivability, safety, and affordability. Program Managers shall consider supportability, life cycle costs, performance, and schedule comparable in making program decisions. Planning for Operation and Support and the estimation of total ownership costs shall begin as early as possible. Supportability, a key component of performance, shall be considered throughout the system life cycle.

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Key Definitions

Support:

The physical act of providing for the existence or subsistence of an item at a desired level. Operational Logistics

Supportability:

The physical and functional characteristics of an item that determine its requirements for support. A design issue.

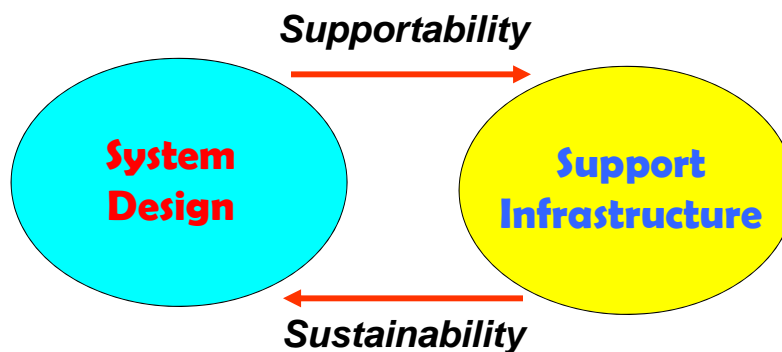
Sustainability:

A prediction or estimate of the ability to maintain or support an activity or capability at a desired, pre-stated level for a defined or an indefinite period of time. A physical logistics infrastructure issue.

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The Key Relationship



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Total Ownership Cost

- Total Ownership Cost (TOC) is the total cost of an asset throughout its ownership lifecycle, from acquisition to disposal.
- The aim of TOC analysis is to identify, quantify, and ultimately, reduce the overall costs associated with ownership of assets.

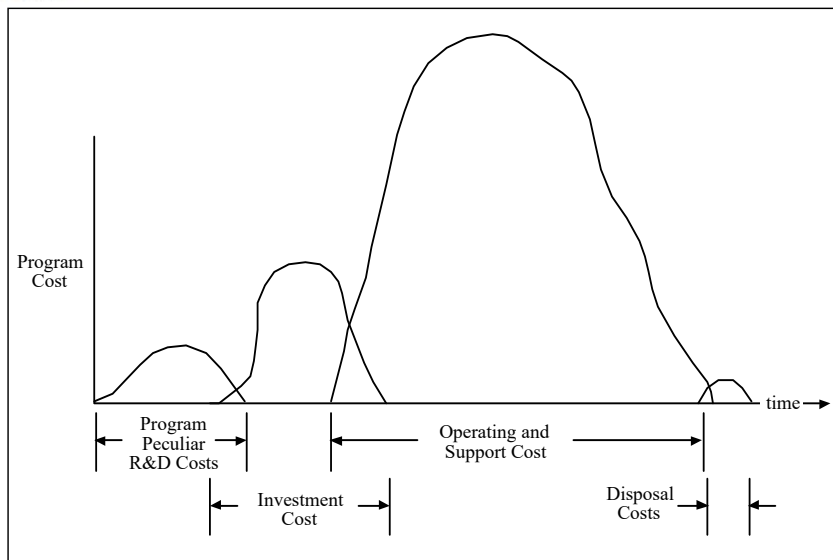


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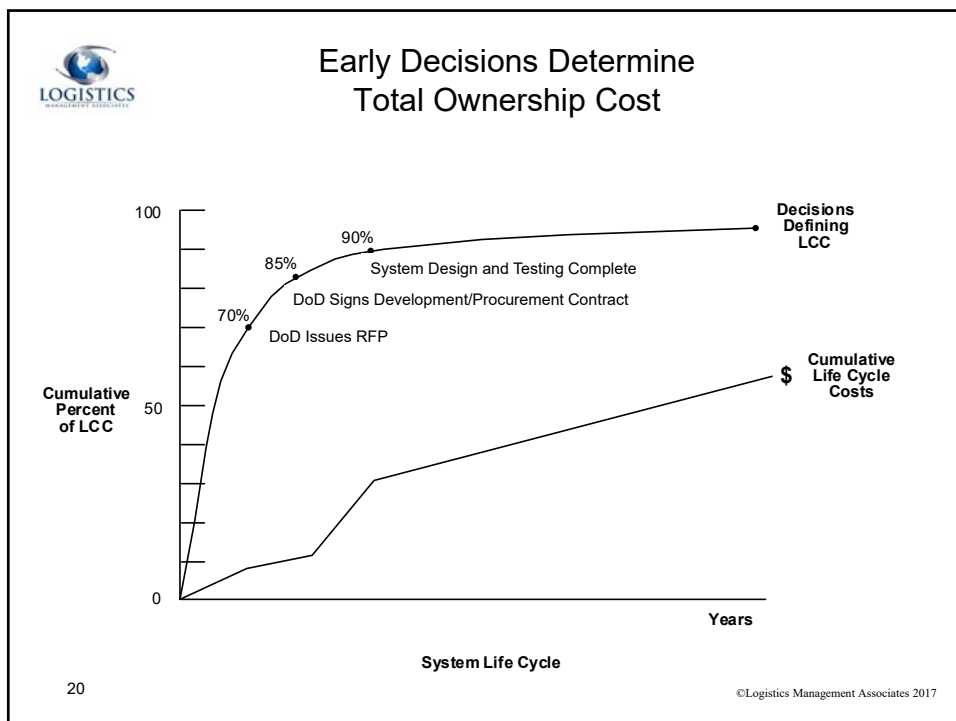
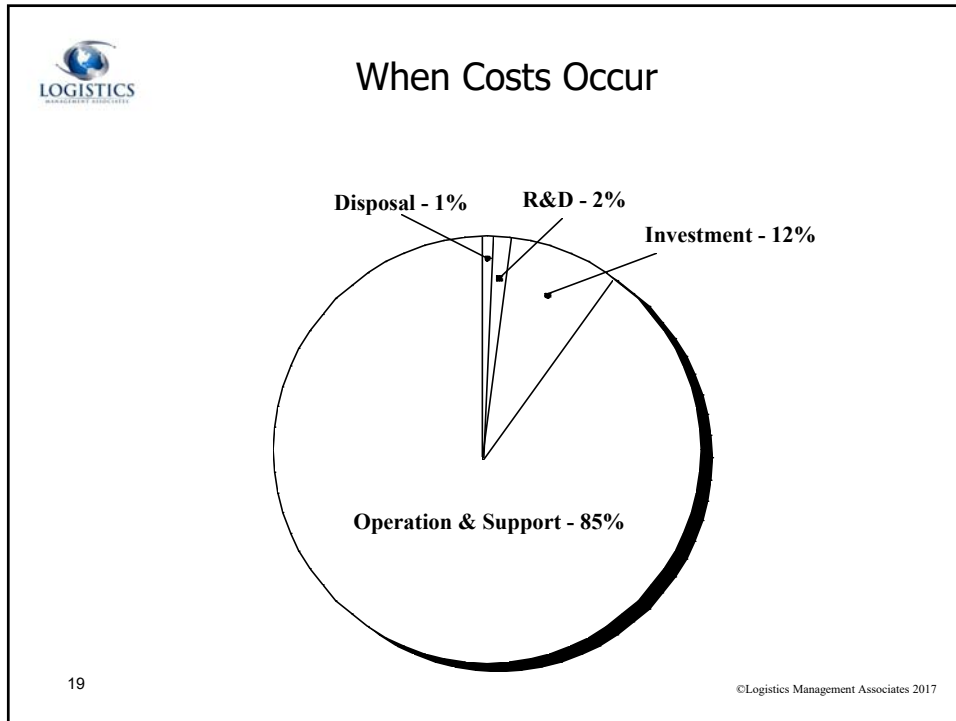


Ownership Life Cycle Costs of a System



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1965

Integrated Logistics Support

The disciplined and unified management of logistics technical disciplines...

1. Participate in the development or selection of the design of the product.
2. Plan and develop support for the product.

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Conceptual Goals of ILS

- Assist in achieving lowest Total Ownership Costs
- Identify potential cost and support drivers
- Influence design decisions for support
- Identify & develop support resources
- Operate the support solution in-service

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Integrated Logistics Support

- Acquisition
 - Participate in development or purchase of a supportable design that minimizes Total Ownership Costs
 - Develop reasonable support infrastructure
 - Identify and obtain physical support resources
- In-Service
 - Operate support solution
 - Continual assessment for improvement

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Logistics Support Analysis (1982)

Tri-Service Committee for LSA Standardization

- Create a process to be used by the ILS organization to meet its requirements to assist in minimizing total cost of ownership
- Formalize a process to be used by the ILS organization to develop an integrated and cost effective sustainment solution
- Base both processes on best commercial practices

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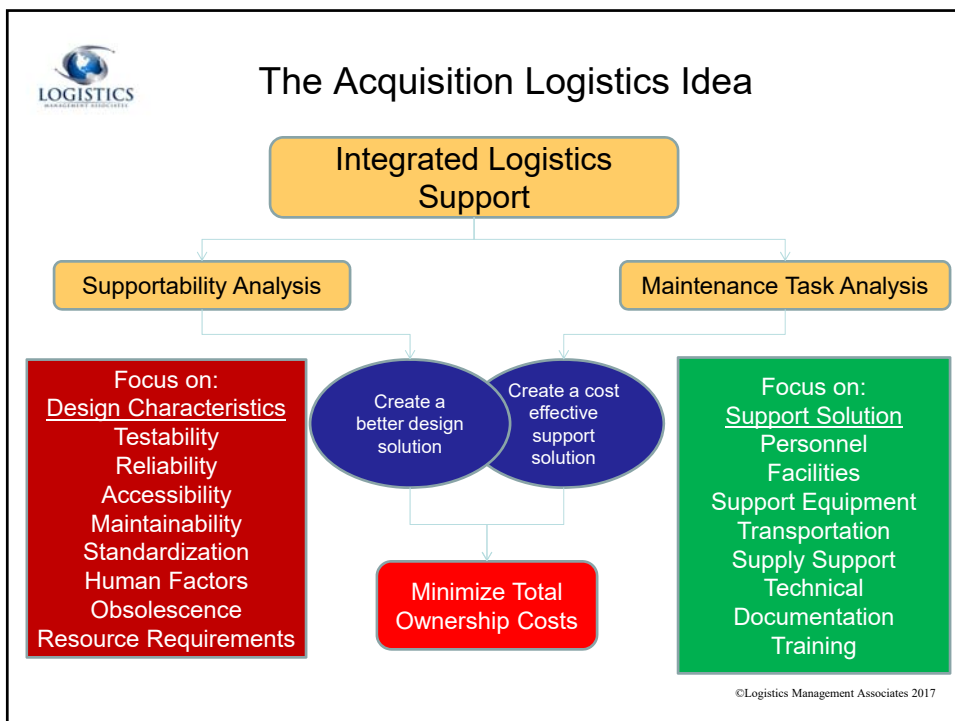



LSA Standards

MIL-STD 1388-1A Logistics Support Analysis

MIL-STD 1388-2B Logistics Support Analysis Record

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LSA Standards

PERRY MEMO 1994

WHAT A MESS!!!!

CANCELLED??


REVISED??

WHERE NOW???

MIL-STD 1388-1A Logistics Support Analysis

MIL-STD 1388-2B Logistics Support Analysis Record

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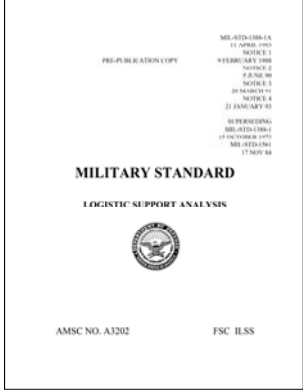


Evolving Situation

| | |
|--|--|
| • MIL STD 1388-1A | Logistics Support Analysis |
| • MIL HDBK 502 | Acquisition Logistics |
| • MIL HDBK 502A | Product Support Analysis |
| • ASD S3000L | Logistics Support Analysis |
| <hr style="border: 1px solid red;"/> | |
| • MIL STD 1390D | Level of Repair Analysis |
| • AS 1390 | Level of Repair Analysis |
| • MIL-HDBK 1390 | |
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| • TA-STD 0017 | Product Support Analysis |
| • TA-HB 0007-1 | Logistics Reports |
| <hr style="border: 1px solid red;"/> | |
| • MIL STD 1388-2B | Logistics Support Analysis Record |
| • MIL PRF 49506 | Logistics Management Information(LMI) |
| <hr style="border: 1px solid black;"/> | |
| • GEIA STD 0007 | Logistics Product Data |
| • GEIA HB 0007 | LPD Handbook |


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What's the Difference?



MILITARY STANDARD
LOGISTIC SUPPORT ANALYSIS

AMSC NO. A3202 FSC ILSS



TechAmerica Standard
Product Support Analysis

TA-STD-0017

October 2012

TechAmerica
Sustaining the Future Today

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Comparison

- MIL STD 1388-1A Logistics Support Analysis
 - 15 Tasks
 - 82 Subtasks
- TA STD 0017 Product Support Analysis
 - 17 Activities (Field Feedback & Disposal Analysis added)
 - 88 Sub-Activities
- Resurrects MIL STD 1388-1A
- Provides implementable approach to Product Support

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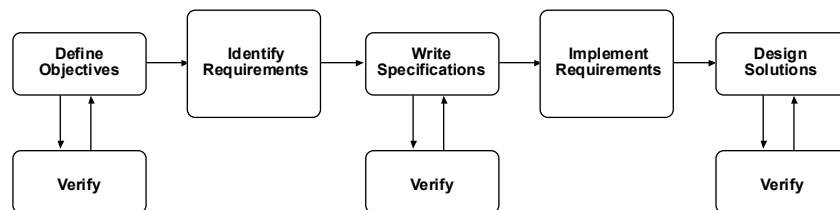
The Functional PSA Process (Supportability Analysis)

Developing a Design Solution that
Maximizes Supportability and
Minimizes Total Ownership Costs

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Functional PSA Process (PSA through Systems Engineering to Minimize Total Ownership Costs)



This is what Jim calls Supportability Engineering

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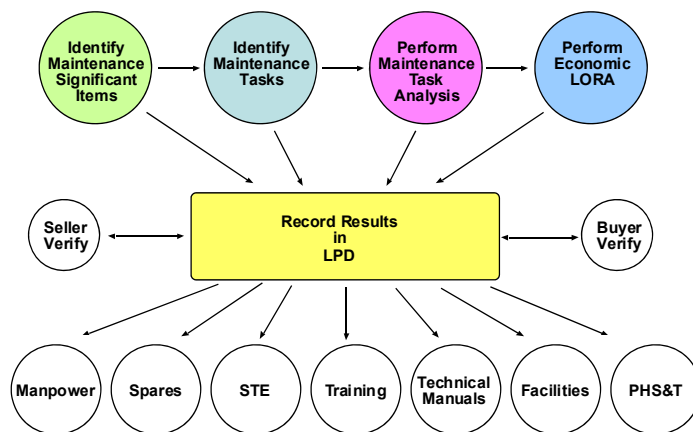


The Physical PSA Process

Developing an Adequate and Cost Effective Physical Support Resource Package for the User



Physical PSA Process





Level of Repair Analysis

- Implement preferred sustainment philosophy
- LORA decisions
 - Non-Economic Criteria
 - Determine the least costly repair policy for an item
 - Make repair or discard decisions
 - Create a focused sustainment solution for each item
- Most important business decisions on a program

(MIL HDBK1390 - AS 1390)

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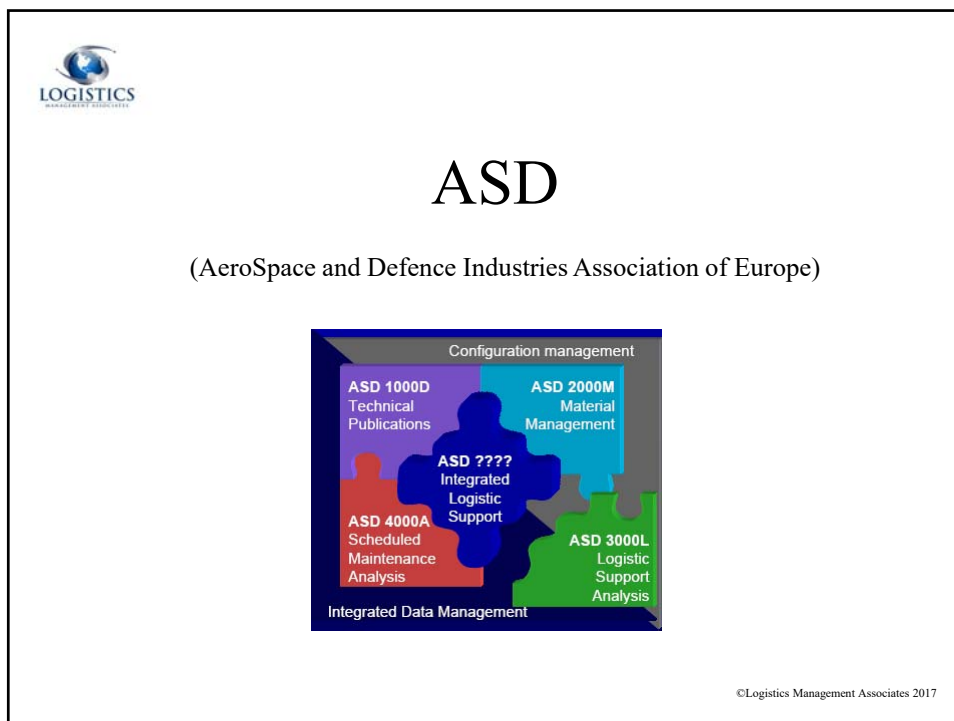
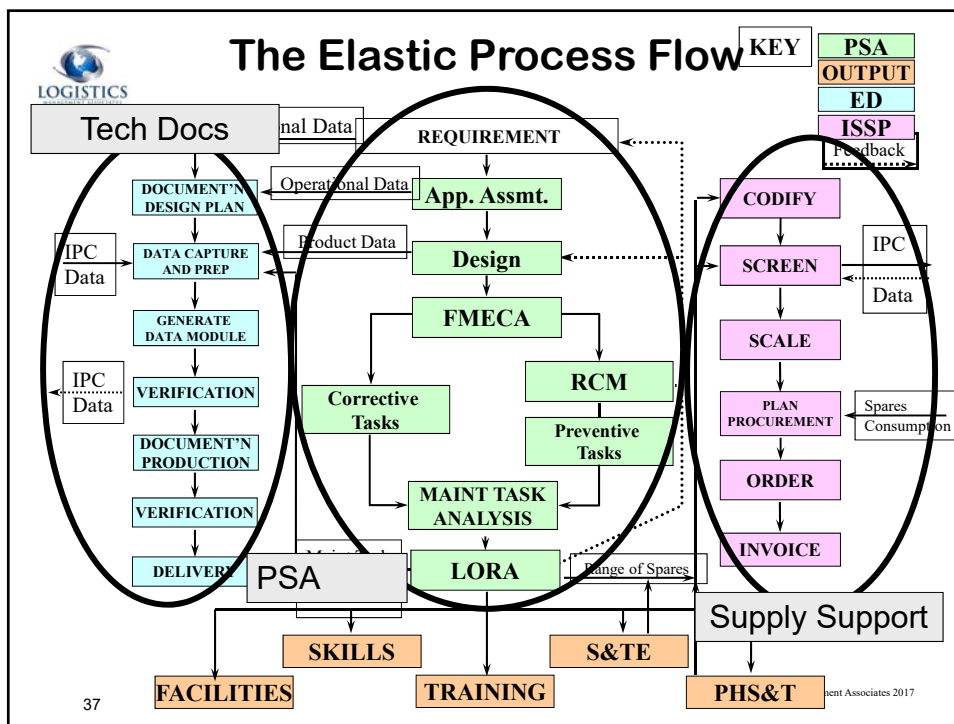
Logistics Product Data (LPD)


**Recording the Results of the
Systems Engineering and PSA Process**

**GEIA STD/HB 0007
TA HB 0007-1**

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AeroSpace and Defense Industries Association of Europe (ASD)

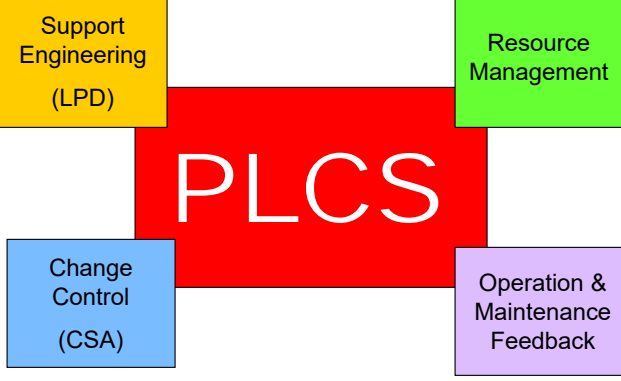
- S1000D International Specification for Technical Publications Using a Common Source Database
- S2000M International Standard for Materiel Management
- S3000L International Procedure Specification for Logistics Support Analysis (LSA)
- S4000M International Specification for Developing and Continuously Improving Preventive Maintenance
- S5000F International Specification for In-service Data Feedback
- S6000T International Specification for Training Analysis and Design

- SX1003 S1000D to S3000L Interchange Specification
- SX000i Integrated Logistics Support

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ISO 10303 – STEP AP 239 Product Life Cycle Support





The diagram features a central red rectangle with the text "PLCS" in white. Surrounding this central rectangle are four smaller colored rectangles, each representing a key area of support: a yellow box for "Support Engineering (LPD)", a green box for "Resource Management", a blue box for "Change Control (CSA)", and a purple box for "Operation & Maintenance Feedback".

Sustainment Logistics throughout Operational Life

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 **Roadmap to Success**



- Application Assessment Report (former Use Study Report)
- Life Cycle Sustainment Plan (LCSP)
- System Specification
- PWS/SOW/CDRL
- Integrated Support Plan (ISP)

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 **Questions??**



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