

LIFE CYCLE SYSTEMS MANAGEMENT

A Selected Bibliography



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Incorporating logistics considerations into the design of weapon systems was, in fact, official policy dating back to 1964; the Department of Defense obligated the Services to conceive weapon systems with logistics in mind, emphasizing the cost of the system over its entire life, not just the cost of an item at the end of the production phase. This concept of integrated logistics support was, of course, not new even in 1964; it represented the continuation of the long-standing interplay between the research and development process, and the logistics dimension.

(The) most vital function was seeing that logistics, including supportability and costs, throughout the life of the system were considered whenever decisions were made about the form of the system. It generally was far less difficult, costly, and time consuming to make design changes before a weapon system entered production than to make modifications in the completed system.

HQ Air Force Logistics Command (AFLC) (now Air Force Material Command) Office of History 1981

PREFACE

The study of Life Cycle Systems Management is a vital area of study for the United States Army, and for the Department of Defense. This bibliography introduces some of the resources readily available at the U. S. Army Sustainment University Library or on the Internet about Life Cycle Systems Management. It is not a comprehensive listing of resources but is intended to serve as a starting point for research.

Most of the resources in this bibliography are dated from 1994 to the present. All items are available through the Army Sustainment University (ASU) Library, either within the physical library collection or on the internet. For convenience we have added ASU Library call numbers, internet addresses, or database links at the end of each entry. Web sites were last accessed August 2023.

Due to licensing agreements, access to articles in the ASU Library's subscription databases is limited to users on computers that have a Fort Gregg-Adams IP address, and to authorized users. Local libraries are another option.

This bibliography and others compiled by the ALU Library are available online through the Library's ALU Webpage page at <http://www.alu.army.mil/index.html>.

For additional information please contact the 3rd Floor Information Desk, U. S. Army Sustainment University Library, by sending an email to usarmy.gregg-adams.tradoc.mbx.army-logistics-library@army.mil, or by calling 804-765-8170 (commercial) or 539-8170 (DSN).

Compiled by
ASU Library Reference Staff

BOOKS, DOCUMENTS, AND INTERNET RESOURCES

- Balafas, Andreas, Stavros Krimizas, John Stage. *Impact of logistics on readiness and life cycle cost: A life cycle management approach*. MBA Professional Report, Monterey, CA: Naval Postgraduate School, June 2010. 125pp. [DTIC](#)
- Blanchard, Benjamin S. *Design and manage to life cycle cost*. Portland, OR: M/A Press, 1978. 255pp. (HD47 .B49 1978)
- Brown, Robert J. *Introduction to life cycle costing*. Atlanta, GA: Fairmont Press, 1985. 313pp. (TA177.7 .B76 1985)
- Carapic, Jovana, and Paul Holtom. "Life-Cycle Management of Ammunition (LCMA): Lessons from Bosnia and Herzegovina." *Small Arms Survey*, 2018. [JSTOR](#).
- Chioatto, Elisa, Emy Zecca, and Alessio D'Amato. "Which Innovations for Circular Business Models?: A Product Life-Cycle Approach." *Fondazione Eni Enrico Mattei (FEEM)*, 2020. [JSTOR](#)
- Colabella, Lisa. *Equipment sustainment data in standard Army management information systems: needs, gaps, and opportunities*. Santa Monica, CA: Rand, 2012. 98pp. (UC263 .E75 2012) [RAND](#)
- Colabella, Lisa, et al. *Measuring the value of renewal: age, operational tempo, deployment, and reset effects on the readiness and maintenance costs of Army vehicles*. Santa Monica, CA: Rand, 2013. 95pp. [RAND](#)
- Cumming, Adam Stewart, and Johnson, Mark S., eds. *Energetic Materials and Munitions : Life Cycle Management, Environmental Impact, and Demilitarization*. Newark: John Wiley & Sons, Incorporated, 2019. Accessed August 23, 2023. [ProQuest Ebook Central](#).
- Defense Acquisition University. *DAU: Defense Acquisition University*. Fort Belvoir, VA. [DAU](#)
- Defense Acquisition University. *DOD life cycle management (LCM) & product support manager (PSM) rapid deployment training*. Fort Belvoir, VA: Defense Acquisition University, October 2010. 98pp. [DTIC](#)
- Dekker, Rommert. *Reverse logistics: quantitative models for closed-loop supply chains*. Berlin, NY: Springer, 2004. 436pp. (TS169 .R48 2004)
- Emblemsvag, Jan. *Life-cycle costing: using activity-based costing and Monte Carlo methods to manage future costs and risks*. Hoboken, NJ: Wiley, 2003. 320pp. (HD47 .E58 2003)
- Flanagan, Michael P. *Life cycle management commands: Wartime process or long-term solution?* Strategy Research Project, Carlisle Barracks, PA: U.S. Army War College, March 2007. 33pp. [DTIC](#)

- Galar, Diego, Peter Sandborn, and Uday Kumar. *Maintenance Costs and Life Cycle Cost Analysis*. First edition. Boca Raton, FL: CRC Press, 2017. [EBSCOhost](#).
- Gebman, Jean R. *Challenges and issues with the further aging of U.S. Air Force aircraft: policy options for effective life-cycle management of resources*. Santa Monica, CA: Rand, 2009. 80pp. (UG1243 .G429 2009) [RAND](#)
- Hatch, Melanie L. *Concurrent optimization in designing for logistics support*. Blacksburg, VA: Thesis (Ph.D)---Virginia Polytechnic Institute and State University, 1994. 247pp. (LD5655 .V856 .H383 1994)
- Hurst, Dana. *Performance based logistics: A bridge between acquisition reform and logistics supply chain management*. Strategy Research Project, Carlisle Barracks, PA: U.S. Army War College, March 2006. 25pp. [DTIC](#)
- Hutchinson, Robert A. *The cost of information systems modernization: a comparison of options for life-cycle project management systems*. Bethesda, MD: Logistics Management Institute, 1990. (U168 .L642 H87 1990). [DTIC](#)
- Keating, Edward G. *Aging aircraft repair-replacement decisions with depot-level capacity as a policy choice variable*. Santa Monica, CA: Rand, 2005. 47pp. (TL685.3 .A4 2005) [RAND](#)
- Killingsworth, William R. *Design, analysis, and optimization of supply chains: a system dynamics approach*. New York, NY: Business Expert Press, 2011. 215pp. (HD38.5 .K553 2011)
- Kumar, Dinesh. *Reliability maintenance and logistic support: a life cycle approach*. Boston, MA: Kluwer Academic, 2000. 490pp. (TS173 .R46 2000)
- Martin, Belva M. "Defense acquisitions: further action needed to improve DOD's insight and management of long-term maintenance contracts". GAO-12-558. Washington, DC: Government Accounting Office, 2012. 40pp. [GAO](#)
- Merritt, Zina Dache. "Depot maintenance: actions needed to identify and establish core capability at military depots." GAO 09-83. Washington, DC: Government Accounting Office, 2009. [GAO](#).
- Merritt, Zina Dache. "Depot maintenance: improved strategic planning needed to ensure that Army and Marine Corps depots can meet future maintenance requirements." GAO-09-865. Washington, DC: Government Accounting Office, 2009. 39pp. [GAO](#).
- Moore, Nancy Y. *Supplier relationship management at Army life cycle management commands: gap analysis of best practices*. Santa Monica, CA: Rand, 2012. 148pp. (UC263 .M821 2012) [RAND](#)
- Moore, Nancy Y., et al. *A gap analysis of life cycle management commands and best purchasing and supply management organizations*. Santa Monica, CA: Rand, 2012. 144pp. [RAND](#).
- Parnell, Gregory S. *Decision making in systems engineering and management*. Hoboken, NJ: Wiley-Interscience, 2008. 438pp. (TA168 .D43 2008)

- Peltz, Eric. *Equipment sustainment requirements for the transforming Army*. Santa Monica, CA: Rand, 2003. 174pp. (UA25 .P35 2003) [RAND](#)
- Pendleton, John H. *Missile defense: actions needed to improve planning and cost estimates for long-term support of ballistic missile defense*. Washington, DC: Government Accountability Office, 2008. 52pp. [GAO](#)
- Pyles, Raymond. *Aging aircraft: USAF workload and material consumption life cycle patterns*. Santa Monica, CA: Rand, 2003. 193pp. (UG1243 .P96 2003) [RAND](#)
- Russell, Cary. "Weapon systems management: DOD has taken steps to implement product support managers but needs to evaluate their effects." GAO-14-326. Washington, DC: Government Accountability Office, 2014. 55pp. [GAO](#)
- Russell, Cary B. "Defense management: DOD needs better information and guidance to more effectively manage and reduce operating and support costs of major weapon systems." GAO-10-717. Washington, DC: U.S. Government Accountability Office, 2010. 73pp. [GAO](#)
- Samaras, Constantine. *Obtaining life-cycle cost-effective facilities in the Department of Defense*. Santa Monica, CA: Rand, 2013. 59pp. (UC46 .S26 2013) [RAND](#)
- Schwartz, Moshe. *The Nunn-McCurdy Act: Background, analysis, and issues for Congress*. Washington, DC: Congressional Research Service, 2011. 32pp. [OpenCRS](#)
- Seldon, M. Robert. *Life cycle costing: a better method of government procurement*. Boulder, CO: Westview Press, 1979. 283pp. (JK1673 .S44 1979)
- Shim, Jae K. *Project management: a financial perspective*. Cranbrook, Kent, United Kingdom: Global Professional, 2010. 185pp. (HD69 .P75S533 2010)
- Solis, William M. "Defense inventory: the Department needs a focused effort to overcome critical spare parts shortages." GAO-03-707. Washington, DC: Government Accountability Office, 2003. 31pp. [GAO](#)
- Solis, William M. "Defense logistics: improved analysis and cost data needed to evaluate the cost-effectiveness of performance based logistics." GAO-09-41. Washington, DC: Government Accountability Office, 2008. 69pp. [GAO](#)
- Stock, James R. *Development and implementation of reverse logistics programs*. Oak Brook, IL: Council of Logistics Management, 1998. 247pp. (TS169 .S76 1998)
- Torossian, Bianca, Frank Bekkers, and Klaudia Klonowska. "Life Cycle Management." *Effective Stakeholder Cooperation during the Lifecycle of Robotic and Autonomous Systems*. Hague Centre for Strategic Studies, 2020. [JSTOR](#)
- Tripp, Robert S., et al. *Air Force Materiel Command reorganization analysis: final report*. Santa Monica, CA: Rand, 2012. 182pp. (UG1123 .A37 2012) [RAND](#)

United States Army. *2009 Army Posture Statement: Life Cycle Management (LCM) Initiative*. Washington, DC: May 6, 2009. [US Army](#)

United States. Government Accountability Office. "DOD's high-risk areas: Progress made implementing supply chain management recommendations, but full extent of improvement unknown." GAO-07-234. Washington, DC: Government Accountability Office, 2007. 164pp. [GAO](#)

Whitson, Anthony K. *Sustaining equipment and the rapid acquisition process: The forgotten phase*. Strategy Research Project, Carlisle Barracks, PA: U.S. Army War College, 2012. 26pp. [DTIC](#)

PERIODICAL ARTICLES

Arulnathan, Vivek, et al. 2023. "Economic Indicators for Life Cycle Sustainability Assessment: Going beyond Life Cycle Costing." *Sustainability* 15, no. 1 (2023): 13. [ProQuest](#).

Auzair, Sofiah. "Organisational life cycle stages and management control systems in service organizations." *International Journal of Business and Management* 5, no. 11 (November 2010): 56-65. [CCSE](#)

Badiru, Adedeji B. "Half-life learning curves in the defense acquisition life cycle." *Defense Acquisition Research Journal* 19, no. 3 (July 2012): 283-308. [DTIC](#)

Burian, Philip E., Leslie M. Keffel, Francis R. Maffel, III. "The Defense life cycle management system as a working model for academic application." *American Journal of Business Education* 4, no. 7 (July 2011): 19-27. [ProQuest](#)

Cothran, Jerry D., et al. "Achieving defense transformation: Through total life cycle systems management." *Program Manager* 31, no. 5 (September-October 2002): 48-54. [EBSCOhost](#)

Christianson, C. V. "SAVINGS and the Defense Logistics Enterprise." *JFQ: Joint Force Quarterly* no. 61, (2nd Quarter, 2011): 43-46. [EBSCOhost](#)

Dryden, Sue. "The product support manager: A catalyst for life cycle management and product support success." *Defense AT&L* 41, no. 2 (March-April 2012): 2-4. [EBSCOhost](#)

Dunwoody, Ann E. "Sustainment moves to the next level: Rethinking our life-cycle focus." *Army Sustainment* 41, no. 5 (September 2009): 3-4. [EBSCOhost](#)

Edison, Thomas R. and Andre Murphy. "A new look at enablers and barriers to performance based life cycle product support (PBL) implementation." *Defense Acquisition Research Journal* 19, no. 4

- (October 2012): 376-393. [ProQuest](#)
- Emmert, Terry. "The life cycle sustainment plan: A review of the annotated outline." *Defense AT&L* 41, no. 2 (March-April 2012): 22-25. [EBSCOhost](#)
- Fontaine, Dan, and Jim Mulkey. "Implementing CALS (Continuous Acquisition & Life Cycle Support) near end of acquisition phase." *Logistics Spectrum* 30, no. 6 (August 1996): 21-24.
- Geary, Steve, et al. "Performance-based life cycle product support strategies: Enablers for more effective government participation." *Defense Acquisition Review Journal* 17, no. 4 (October 2010): 450-483. [EBSCOhost](#)
- Harrington, Edward M. "The Defense Contract Management Agency: Providing the warfighters with contract management and acquisition life-cycle solutions." *DISAM Journal* 25, no. 3 (Spring 2003): 1-4. [DTIC](#)
- Hausberger, Lukas, Tobias Cordes, and Florian Gschösser. "Life Cycle Assessment of High-Performance Railway Infrastructure, Analysis of Superstructures in Tunnels and on Open Tracks." *Sustainability* 15, no. 9 (2023): 7064. [ProQuest](#)
- He, Bin, and Qianyi Yu. 2021. "Product Sustainable Design for Carbon Footprint during Product Life Cycle." *Journal of Engineering Design* 32 (9): 478–95. [EBSCOhost](#)
- Hutchison, Steven J. 2013. "Shift Left!" *Defense AT&L* 42, no. 5 (2013): 35–39. [EBSCOhost](#)
- Jankowski, Arthur. "TACOM LCMC (Life Cycle Management Command) moves the Army." *Army* 61, no. 5 (May 2011): 31-32. [EBSCOhost](#)
- Jones, Shawn R., George A. Zsidisin. "Performance implications of product life cycle extension: The case of the A-10 aircraft." *Journal of Business Logistics* 29, no. 2 (2008): 189-VIII. [ProQuest](#)
- Kobren, Bill. "The defense life-cycle logistics journey: A 10-year retrospective of product support transformation." *Defense AT&L* 43, no. 3 (May-June 2014): 28-34. [EBSCOhost](#)
- Kobren, Bill. "Product support and human capital: Essential ingredients for optimizing system readiness, availability, and life cycle costs." *Defense AT&L* 40, no. 4 (July-August 2011): 12-15. [EBSCOhost](#)
- Kobren, Bill. "The product support manager: Achieving success in executing life cycle management responsibilities." *Defense Acquisition Review Journal* 17, no. 2 (April 2010): 182-205. [EBSCOhost](#)

- Kobren, Bill. "Shaping the life cycle logistics workforce to achieve desired sustainment outcomes." *Defense Acquisition Review Journal* 16, no. 1 (April 2009): 84-95. [EBSCOhost](#)
- Kobren, Bill. "Supportability as an affordability enabler: A critical fourth element of acquisition success across the system life cycle." *Defense AT&L* 40, no. 5 (September-October 2011): 50-54. [EBSCOhost](#)
- Kobren, Bill. "Teamed for success: the imperative for aligning systems engineering and life cycle logistics." *Defense AT&L* 42, no. 1 (January-February 2013): 18-24. [EBSCOhost](#)
- Kratz, Lou and Bradd A. Buckingham. "Achieving outcomes-based life cycle management." *Defense Acquisition Review Journal* 17, no. 1 (January 2010): 45-66. [ProQuest](#)
- Kratz, Louis A, Randy T. Flower, and Jerry Cothran. "Achieving defense transformation." *Program Manager* 31, no. 5 (September-October 2002): 48-54. [EBSCOhost](#)
- Lenaers, William M. and Brent D. Coryell. "Reset: Extending the life of Army equipment." *Army Logistician* 38, no. 1 (January-February 2006): 2-4. [Army Logistician](#)
- "Life cycle management initiative will integrate AMC MSCs and ALT PEOs." *Army Logistician* 36, no. 6 (November-December 2004): 48-49. [EBSCOhost](#)
- Miller, Jamie. "Forging new links." *Army AL&T* (October-December 2014): 34-38. [EBSCOhost](#)
- Nesbitt, Anthony "Tony". "Lifesaving Logistics: The Future of Medical Materiel Life Cycle Management: Army Logistician." *Army Sustainment* 54, no. 1 (Winter, 2022): 38-41. [ProQuest](#)
- Oaks, David. "Improved end-of-life cycle management: Yesterday's equipment conserving today's dollars." *Defense AT&L* 39, no. 5 (September-October 2010): 14-17. [EBSCOhost](#)
- Pack, David. "Enabling fleet management with CBM+." *Army Sustainment* 46, no. 2 (March-April 2014): 19-21. [EBSCOhost](#)
- Pillsbury, James H. "Life-cycle management: Reducing the burden on the soldier." *Army Logistician* 37, no. 2 (March-April 2005): 2-5. [EBSCOhost](#)
- Randall, Wesley S. "Are the performance based logistics prophets using science or alchemy to create life-cycle affordability? Using theory to predict the efficacy of performance based logistics." *Defense Acquisition Review Journal* 20, no. 3 (October 2013): 325-348. [EBSCOhost](#)

Schuman, Charles A. and Alan C. Brent. "Asset life cycle management: Towards improving physical asset performance in the process industry." *International Journal of Operations & Production Management* 25, no. 5/6 (2005): 566-579. [ProQuest](#)

Swiderski, Waldemar and Rolek, Wieslawa. "A Model of Product Life Cycle Cost Management Based on the Example of the Spartan Multimedia Shooting Training System". *Economies* 9, no.2 (Jun.2021): 90. [ProQuest](#).

Tamiris Pacheco, da Costa, James Gillespie, Katarzyna Pelc, Abi Adefisan, Michael Adefisan, Ramakrishnan Ramanathan, and Fionnuala Murphy. "Life Cycle Assessment Tool for Food Supply Chain Environmental Evaluation." *Sustainability* 15, no. 1 (2023): 718. [ProQuest](#)

Tibben-Lembke, Ronald. "Life after death: Reverse logistics and the product life cycle." *International Journal of Physical Distribution & Logistics Management* 32, no. 3 (2022): 223-244. [ProQuest](#).

Winbush, James O., et al. "Life cycle management: Integrating acquisition and sustainment." *Army Logistician* 37, no. 1 (January-February 2005): 2-3. [EBSCOhost](#)

Yang, Mei, Hai Zhu, and Kai Guo. "Research on Manufacturing Service Combination Optimization Based on Neural Network and Multi-Attribute Decision Making." *Neural Computing & Applications* 32, no. 6 (2020): 1691–1700. [EBSCOhost](#)

Xuan Cu, P., and A. Ha Bui. 2019. "Methodologies for Reliability Prediction of Electronic Component in Military Vehicles." *Advances in Military Technology* 14, no 1 (2019): 89–98. [EBSCOhost](#)

MULTIMEDIA

Defense Acquisition University. "Jerry Beck Thoughts on PBL." 2.28 minutes. March 13, 2017. [DAU](#)

Defense Acquisition University. "Life Cycle Logistics for the Rest of Us 07.25.18." 1 hour 23 minutes. July 25, 2018. [DAU](#).

Defense Acquisition University. "Life Cycle Sustainment Plan (LCSP) Outline." 1.29 minutes. Updated January 25, 2023. [DAU](#)

Defense Acquisition University. "Life Cycle Sustainment Plan Outline V3.0 Perspective by HON Christopher J. Lowman, ASD(S)." 5.27 minutes. October 6, 2022. [DAU](#).