



A Study of United States Army Product Support Manager (PSM) Training

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Senior Service College Fellowship 2015-2016

Huntsville, Alabama

25 March 2016

This research paper is presented to the Defense Acquisition University (DAU) for partial fulfillment of the academic requirements for the Army's Senior Service College Fellowship (SSCF) under the direction of SSCF Director, Mr. John Daniels and Research Advisor, Mr. Steve Monks.

Distribution Statement A, Approved for Public Release, 31 March 2016, U.S. Army Aviation & Missile Command Public Affairs Office

Approval Page

Title: A Study of PSM Training

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Organization: DAU-South, Senior Service College Fellowship (SSCF)

Date of Paper: 25 March 2016

Informed Consent Forms Completed and On-file: Completed

Research Advisor [Steve Monks] Approval Date: 24 March 2016

SSCF Director [John Daniels] Approval Date: 25 March 2016

OPSEC Approval Date: 31 March 2016

Approval for Public Release Date: 31 March 2016

Date Submitted for Journal Publication:

Acknowledgements

I would like to acknowledge the efforts of the various Army civilian PMs and PSMs in supporting my research. Additionally, I would like to thank all members of the DAU and Defense Systems Management College (DSMC) faculty for their contribution. The input and support provided by everyone was invaluable. The completion of this research paper is a testament to those efforts.

Abstract

The ability to defend the United States of America rests upon the shoulders of the men and women of the Armed Forces whose mission and objectives require the proper equipment and weapon systems. The concept of product support is the backbone of the process that ensures the existence of “Aligned and synchronized operational, acquisition, and sustainment communities working together to deliver required and affordable Warfighter outcomes” (Product Support Manager Guidebook, 2015). The purpose of the research is to review relevant policy and data associated with Product Support Manager (PSM) responsibilities, measure the current status of PSM training and selection, and conduct an analysis of the effectiveness of that PSM training in relation to weapon system acquisition support.

Table of Content

Abstract	4
Chapter 1 – Introduction, Background	8
Problem Statement	14
Research Questions	14
Chapter 2 – Literature Review	14
Chapter 3 – Purpose of Study	17
Overview of the Research Methodology	17
Limitations of the Study	18
Chapter 4 – Data and Findings	18
Current PSM Requirements and Training Curriculum	18
Leadership Development	23
Stakeholder Management	23
Perspective Development	24
PM Responses	26
PSM Responses	31
Findings	34
Chapter 5 – Conclusion	35
Recommendations	37
Summary	40
References	41
Glossary of Acronyms and Terms	43

Appendix A: Survey Questions for DAU and DSMC	45
Appendix B: PSM Training, Certification, and Experience Requirements	46
Appendix C: Survey Questions for PMs	50
Appendix D: PM Feedback on Suggested Experiences for PSMs	51
Appendix E: PM Feedback on Expectations of a PSM	53
Appendix F: PM Feedback on Building the Bench	55
Appendix G: PM Additional Comments on PSM Training	57
Appendix H: Survey Questions for PSMs	58
Appendix I: PSM Feedback on Receiving Required Training	59
Appendix J: PSM Feedback on Suggested Experiences	61
Appendix K: PSM Feedback on Expectations	63
Appendix L: PSM Feedback on PMs Knowing the Role of PSMs	66
Appendix M: PSM Additional Comments on PSM Training	67
Appendix N: Milestone and Phase Requirements	69
Appendix O: DoD PSM Mandatory Training Requirement	75

List of Figures

Figure 1. ACAT Categories	10
Figure 2. 10 USC 2337	11
Figure 3. PSM Major Tasks	12
Figure 4. Product Support Guiding Principles	13
Figure 5. PSM Guiding Principles	13
Figure 6. Acquisition Milestones	16
Figure 7. PSM Professional & Career Professional Roadmap	20
Figure 8. Life Cycle Logistics DAWIA Certification Requirements	21
Figure 9. The Product Support Manager's Career Path	21
Figure 10. Army Life Cycle Logistics Career Model	22
Figure 11. LOG365/465 Course Content	25
Figure 12. LOG465 Case Life Cycle Process	36

Chapter 1

The Constitution of the United States of America is the founding document and the supreme law of the land. Coming into force in 1789, the Constitution's importance and impact to the country cannot be overstated. Due to sheer complexity, one delegate added the Preamble as a last minute addition. Gouverneur Morris, a delegate from Pennsylvania and member of the Committee of Style, actually drafted the near-final text of the Constitution and composed the Preamble at the last moment (McDonald, 2012). The Preamble to the Constitution summarizes the purpose of the historical, world-changing document. One of the purposes of the Constitution is to provide for the common Defense (The Constitution of the United States of America). According to McDonald (2012), common Defense cannot be assumed as obvious or taken lightly. In fact, McDonald goes further to state that "For the better part of a century Americans had been possessed by a fear of standing armies insisting that Armed Forces adequate to defend the nation would also be adequate to enslave it. Besides, ordinary Americans could believe that, since the War for Independence had been won over the best fighting force in Europe under the aegis of the Confederation, further provision was unnecessary as well as dangerous and Americans further expected that other wars would occur and were determined to be prepared to fight them. The Framers did, however, take fears of standing armies into account, hence their commitment to civilian control of things military" (McDonald, 2012). Using the Constitution as a guide, the Federal government (through various departments, impacted by world and social events) has maintained Armed Forces. Currently the Armed Forces of the United States, under the direction of the President as Chief Executive Officer, are part of the Department of Defense (DoD) (U.S. Department of Defense, 2015). The DoD is a very large organization with the

complex mission “To provide the military forces needed to deter war and to protect the security of the United States” (U.S. Department of Defense, 2015).

Defense Acquisition System (DAS)

The DoD will operate with a proposed budget in excess of \$585.3B in Fiscal Year (FY) 16 (U.S. Department of Defense, 2015) which encompasses a need for processes, procedures, policies and regulations by which to accomplish the mission. To accomplish its mission, the DoD utilizes a management process known as the DAS (Department of Defense Directive, 2007). The DAS is governed by Department of Defense Directive (DODD) 5000.01, which states:

“The DAS exists to manage the nation's investments in technologies, programs, and product support necessary to achieve the National Security Strategy and support the United States Armed Forces. The investment strategy of the Department of Defense shall be postured to support not only today's force, but also the next force, and future forces beyond that. 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”. (Department of Defense Directive, 2007)

Here you can begin to see how the United States equips its Armed Forces through the processes prescribed in documents and directives that discuss the overall execution of weapon system acquisition.

The Program Manager (PM)

Each weapon system has a PM. The PM is the designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the users operational needs (Department of Defense Directive, 2007). The PM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision

Authority (MDA) (Department of Defense Directive, 2007). Note: For the purpose of the research the title of Program Manager, Product Manager or Project Manager will be collectively referred to as the PM, with the acknowledgement there are different levels of responsibility associated with each position.

Product Support Manager

To further assist the PM in the overall management of the respective weapon system or program, the PSM position was created in 2009. According to Federal Law, each major weapon system shall be supported by a Government PSM. Additionally, the PSM position shall be a Key Leadership Position (KLP) for all Program Acquisition Categories & Types (ACAT) I programs, and a Critical Acquisition Position (CAP) for all ACAT II programs (10 USC 2337). See Figure 1 below for a description of ACAT categories.

Acquisition Category	Reason for ACAT Designation	Decision Authority
ACAT I	- MDAP (10 U.S.C. 2430 (Reference (g))) - Dollar value for all increments of the program: estimated by the DAE to require an eventual total expenditure for research, development, and test and evaluation (RDT&E) of more than \$480 million in Fiscal Year (FY) 2014 constant dollars or, for procurement, of more than \$2.79 billion in FY 2014 constant dollars - MDA designation - MDA designation as special interest¹	ACAT ID: DAE or as delegated ACAT IC: Head of the DoD Component or, if delegated, the CAE (not further delegable)
ACAT IA ^{2,3}	- MAIS (10 U.S.C. 2445a (Reference(g))): A DoD acquisition program for an Automated Information System⁴ (AIS) (either as a product or a service⁵) that is either: - Designated by the MDA as a MAIS program; or - Estimated to exceed: \$40 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, and deployment, and incurred in any single fiscal year; or \$165 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, and deployment, and incurred from the beginning of the Materiel Solution Analysis Phase through deployment at all sites; or \$520 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, deployment, operations and maintenance, and incurred from the beginning of the Materiel Solution Analysis Phase through sustainment for the estimated useful life of the system. - MDA designation as special interest¹	ACAT IAM: DAE or as delegated ACAT IAC: Head of the DoD Component or, if delegated, the CAE (not further delegable)
ACAT II	- Does not meet criteria for ACAT I or IA - Major system (10 U.S.C. 2302d (Reference (g))) - Dollar value: estimated by the DoD Component Head to require an eventual total expenditure for RDT&E of more than \$185 million in FY 2014 constant dollars, or for procurement of more than \$835 million in FY 2014 constant dollars - MDA designation⁶ (10 U.S.C. 2302 (Reference (g)))	CAE or the individual designated by the CAE ⁶
ACAT III	- Does not meet criteria for ACAT II or above - An AIS program that is not a MAIS	Designated by the CAE ⁶

Figure 1. ACAT Categories
(Naval Air Warfare Center Acquisition Guide, 2015)

Life Cycle Management and Product Support

Product Support Managers.-

(1) Requirement.-The Secretary of Defense shall require that each major weapon system be supported by a PSM in accordance with this subsection.

(2) Responsibilities.-A PSM for a major weapon system shall-

(A) Develop and implement a comprehensive product support strategy for the weapon system

(B) Use appropriate predictive analysis and modeling tools that can improve material availability and reliability, increase operational availability rates, and reduce operation and sustainment costs

(C) Conduct appropriate cost analyses to validate the product support strategy, including cost-benefit analyses as outlined in Office of Management and Budget Circular A-94

(D) Ensure achievement of desired product support outcomes through development and implementation of appropriate product support arrangements

(E) Adjust performance requirements and resource allocations across product support integrators and product support providers as necessary to optimize implementation of the product support strategy

(F) Periodically review product support arrangements between the product support integrators and product support providers to ensure the arrangements are consistent with the overall product support strategy

(G) Prior to each change in the product support strategy or every five years, whichever occurs first, revalidate any business-case analysis performed in support of the product support strategy

(H) Ensure that the product support strategy maximizes small business participation at the appropriate tiers

(I) Ensure that product support arrangements for the weapon system describe how such arrangements will ensure efficient procurement, management, and allocation of Government-owned parts inventories in order to prevent unnecessary procurements of such parts

Figure 2. 10 USC 2337
(Life Cycle Management and Product Support, 2016)

The main role of the PSM is to be an advisor to the PM to ensure affordable readiness (Assistant Secretary of Defense for Logistics & Materiel Readiness, 2016). A key distinction is that this role is for the long term of the program itself, through all Life Cycle phases, not just the current stage. Figure 3 lists those PSM major tasks.

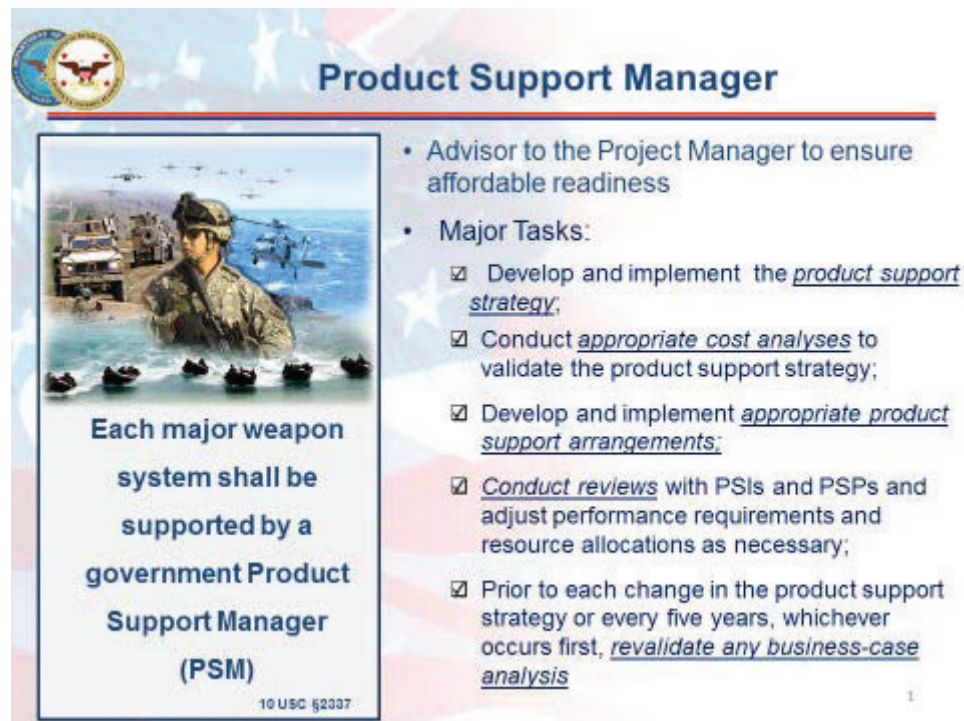


Figure 3. PSM Major Tasks
(Assistant Secretary of Defense for Logistics & Materiel Readiness, 2016)

PSM Guidebook

The PSM Guidebook was developed for the PSM, because it is not an understatement that the role of the PSM is crucial to the Defense of this nation. “The PSM is the key leader with whom the Department has entrusted the task of managing competing priorities and delivering U.S. warfighting readiness” (Product Support Manager Guidebook, 2015, p. i). For example, the PSM must be the catalyst within a PMO to energize thought in the engineering sphere to consider the logistical implications of design and not allow the engineering elements to operate in a vacuum. With a most recent update in Nov 2015, the PSM Guidebook is a tool for all PSMs. Its content

includes, but is not limited to Product Support Strategy, Life Cycle Sustainment, Supply Chain Management, and Sustainment in Life Cycle Phases. The setting for the entire Guidebook is support to the Product Support Guiding Principles and PSM Guiding Principles as shown in Figures 4 and 5.



Figure 4. Product Support Guiding Principles (Product Support Manager Guidebook, 2015)

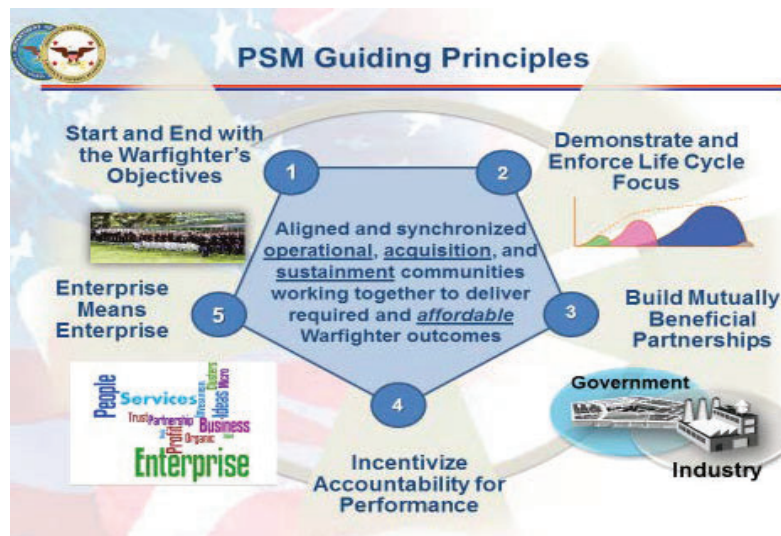


Figure 5. PSM Guiding Principles (Assistant Secretary of Defense for Logistics & Materiel Readiness, 2016)

Problem Statement

The Defense acquisition enterprise is faced with a challenge. The critical mission of DoD is immense, with seemingly endless complexity. The DoD must properly select, prepare, equip, and train all current (and future) PSMs to a level of such competence to perform their assigned roles meeting all expectations and requirements. The training and selection process criticality are compounded by the fact that the PSM concept is relatively new to the overall acquisition process. It is vital that these individuals be properly developed and trained to ensure their effectiveness.

Research Questions

Three very important questions exist. Are the individuals receiving the PSM curriculum being properly trained? Do the PMs and PSMs feel this training has been adequate and effective? Given the training and requirements are the PSMs performing effectively?

Chapter 2 – Literature Review

Extensive reviews of policy related to Defense acquisition were completed to determine three elements related to the PSM: its background and history; the associated requirements and training; and its overall role, combined with policy reviews of the overall Defense acquisition process.

The analysis and investigation reviews primarily official policies and Directives of the DoD. The literature was utilized throughout the development of the research. The principal policies included:

Better Buying Power (BBP) 3.0 White Paper

The **BBP 3.0**, written by the Under Secretary of Defense Acquisition, Technology and Logistics (USDAT&L), dated 19 September 2014, is a driving document based on “the principle

that continuous improvement is the best approach to improving the performance of the Defense acquisition enterprise” (Honorable Frank Kendall, 2014, p. 2).

Defense Acquisition Workforce Improvement Act (DAWIA)

The DAWIA was initially enacted by Public Law in 1990. The DAWIA (1990) requires the DoD to maintain a process through which persons in the acquisition workforce be recognized as having achieved professional status. Certification is the procedure through which military services determine that an employee meets the education, training, and experience standards for a career level in acquisition, technology, and logistics career fields (Defense Acquisition University, 2016).

DoDD 5000.01, The DAS

The DoDD 5000.01 (2007) provides the overall framework of policies related to the DAS, Acquisition Programs, the Defense Acquisition Executive (DAE), the MDA, and the PM.

DoDD 5000.02, Operation of the DAS

The DoDD 5000.02 (2015) provides the overall framework to execute the DAS. Specifics include designation of ACATs, Program Decision Reviews (PDRs), and the Defense Acquisition Board (DAB). Requirements are designated as Milestones (or decision points) for the respective ACATs. Figure 6 shows the basic Milestone structure for DoD Acquisition Programs. Key phases include the Materiel Solutions, Technology Development, Engineering and Development, Production and Deployment, and Operations and Support. The PM must complete criteria for each phase before moving from one Milestone to the next. The decision points are known as Milestone A through C and have varying levels of process and documentation requirements dependent upon the ACAT level. Research into the role of the PSM, the associated training and the PSM’s ultimate effectiveness cannot be complete without an appreciation for the sheer

massive complexity of the documents and requirements associated with a weapon system during its Life Cycle. Appendix N is provided as a listing of statutory and regulatory requirements related to Milestone and Phase Information Requirements.

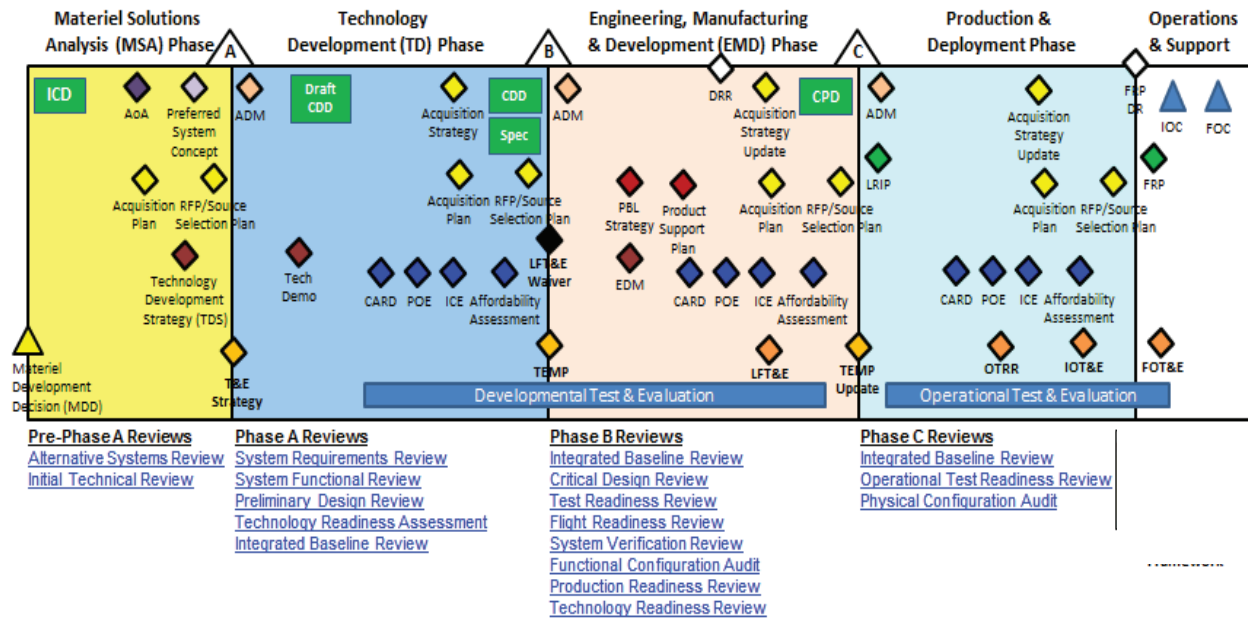


Figure 6. Acquisition Milestones
(DoD Acquisition Milestones, 2015)

U.S Army Regulation (AR) 70-1, Army Acquisition Policy

The AR 70-1 (1997) implements DODD 5000.01 and DODD 5000.02 and governs research, development, acquisition, and Life Cycle Management (LCM) of Army materiel to satisfy approved Army requirements (U.S. Army Regulation 70-1, 1997).

PSM Guidebook

The PSM guidebook serves as a tool for the entire DoD acquisition community. The document also serves as an operating guide to assist the PSM, the Life Cycle logistician and the entire Defense acquisition workforce with the development and implementation of next-generation product support strategies (Product Support Manager Guidebook, 2015).

Chapter 3 – Purpose of Study

The overall purpose of the research study was to measure the status of PSM training and conduct an analysis of the effectiveness of PSM training as it relates to weapon system acquisition support.

Overview of the Research Methodology

The research methodology and policy review employed for the research focused on an examination of existing PSM training curriculum and requirements. Upon completion of the policy review, a written survey to measure the effectiveness was sent to current PMs, Deputy PMs (DPMs), and PSMs within the Redstone Arsenal community. The PMs and PSMs provide support to Army Aviation and Missile programs, and perform duties in support of Program Executive Offices (PEOs). One additional Redstone Arsenal organization was contacted to provide input to the research, the Missile Defense Agency (MDA). While MDA is not currently operating with official PSMs, the Ballistic Missile Defense Systems (BMDS) program utilizes an office titled “DPL”. The DPL office is responsible for the entire BMDS logistics function and the transition to compliance with Congressional mandates and DoD policy related to ACAT I programs and PSMs. Senior leaders in the Army Materiel Enterprise and faculty/staff of the DAU and DSMC were provided a specialized list of questions (see Appendix C). Survey questions, regardless of the recipient, were provided through an email as a separate document for each participant to provide responses. A total of forty-eight surveys were sent with forty responses received, equating to an 83.3% response rate. Further breakdown of the survey participants is as follows (response rate in parentheses): sixteen surveys sent to PSMs with thirteen responses (81.3%), twenty-three surveys sent to PMs and DPMs with eighteen responses (78.3%), one survey sent to MDA with one response (100%), two surveys sent to Materiel

Enterprise leaders with two responses (100%), and six surveys sent to DAU and DSMC faculty with six responses (100%).

Limitations of Study

The data and information provided was limited to acquisition programs managed in the Redstone Arsenal community. Because DoD regulations apply to all branches of service, representative responses from two Army major program areas (Aviation and Missile) are potentially applicable across the entire Department. These program areas were chosen for four reasons; 1) the reasonable expectation that the responses are representative of additional weapon system PMs and PSMs and the sample size was adequate, 2) the questionable responsiveness of additional contacts, 3) the assumption that the major acquisition areas would be large enough to reflect an overall perspective of PSM training. The DoD proposed FY16 budget of \$585B included \$147B for Army aviation alone, representing 32% of the overall Army budget (Sicard, 2015), and 4) the training and selection requirements provided by DAU were not strictly Army in nature. Rather, the DAU training is applicable throughout the DoD to all services.

Acknowledged that the Army perspective only may not be reflective of the overall DoD population, the assumption is that any differing opinion would be one of very limited difference and therefore not substantial enough to dispute the findings of this document.

Chapter 4 – Data and Findings

Current PSM Requirements and Training Curriculum

The data and information presented in this section are a combination of overall PSM training research with a conglomeration of responses from personnel involved in the development of PSM curriculum utilizing the questions provided to them in Appendix A.

The PSM Guidebook clearly states:

“To successfully achieve the expected product support and Life Cycle outcomes articulated in statute and policy, DoD and the Components must have the right people, be provided the right authorities, be afforded the right resources, and have the right mix of experience, expertise, leadership, training, and education assigned as PSMs. These individuals must understand how acquisition and sustainment intersect, why Life Cycle management is so critical, and how to design for supportability from the earliest stages of program development” (Product Support Manager Guidebook, 2015).

The research data overwhelmingly validates the training concept in terms of DAU providing the PSM training necessary to meet statute and policy. An example from the research survey of DAU staff included this statement, “We teach the Level I-III DAWIA Life Cycle Product Support courses and the post-Level III LOG465 course specifically targeting sitting PSMs”. (Note: LOG465 as recently as August 2015, was referred to as LOG365. For the purpose of the research LOG465 and LOG365 should be considered interchangeable). An extremely close relationship exists between the PSM requirements and the training/education provided by DAU. Within the PSM Guidebook (2015), there is a specific Appendix on PSM training, certification, and experience requirements. See Appendix B for this information. Additionally the PSM Guidebook (2015) states, “Although each of the Services (and Defense Agencies which have PSMs assigned) depicts their notional career roadmap for the PSM position slightly differently, there are many commonalities across the Department of Defense” (p. 86). The DAWIA (1990) is a driving factor to determine if a person is qualified to serve as a PSM. The first step of this process involves certification. The mission of the DAU is to “provide a global learning environment to develop qualified acquisition, requirements, and contingency professionals who deliver and sustain effective and affordable warfighting capabilities” (Defense

Acquisition University 2016 Catalog, 2016). The DAU provides training needed for an individual to achieve the required certification for a chosen career field. The driving focus of DAU related to PSM training is to ensure adherence and implementation of all DoD directives.

Figure 7 represents the overarching DoD PSM career path from the PSM Guidebook.

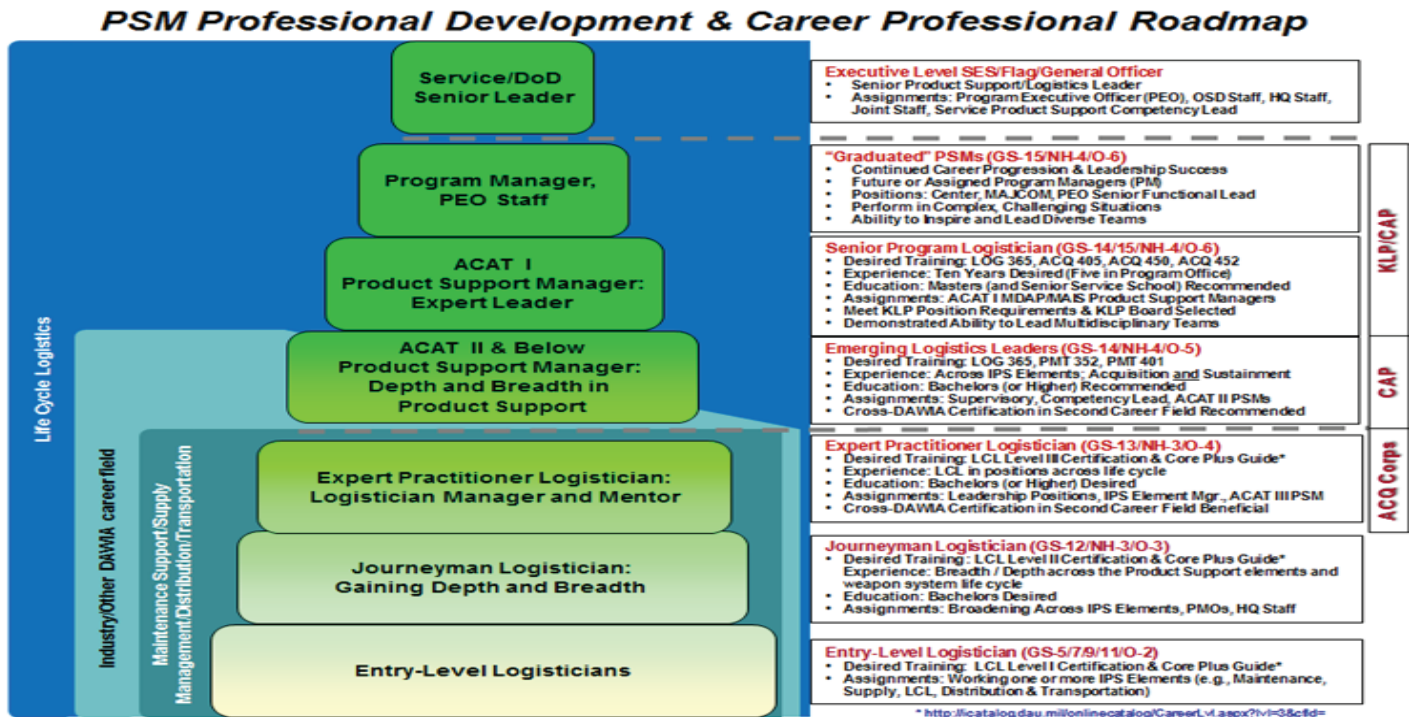


Figure 7. PSM Professional & Career Professional Roadmap
(Product Support Manager Guidebook, 2015)

Any person serving as a PSM must be Level III certified in Life Cycle Logistics (LCL) (Defense Acquisition University, 2016 and Nicholas, 2016). Figures 8 and 9 reflect the requirements graphically. Both figures have been prepared by DAU to allow individuals within the acquisition community to more easily determine individual career needs. Both figures further validate that DAU is linked with the Acquisition community to provide all things required for PSM training and show the commitment of DAU to consistently stay current with all policy, guidance and statutory requirements associated PSMs.

Life Cycle Logistics DAWIA Certification Requirements (FY15)

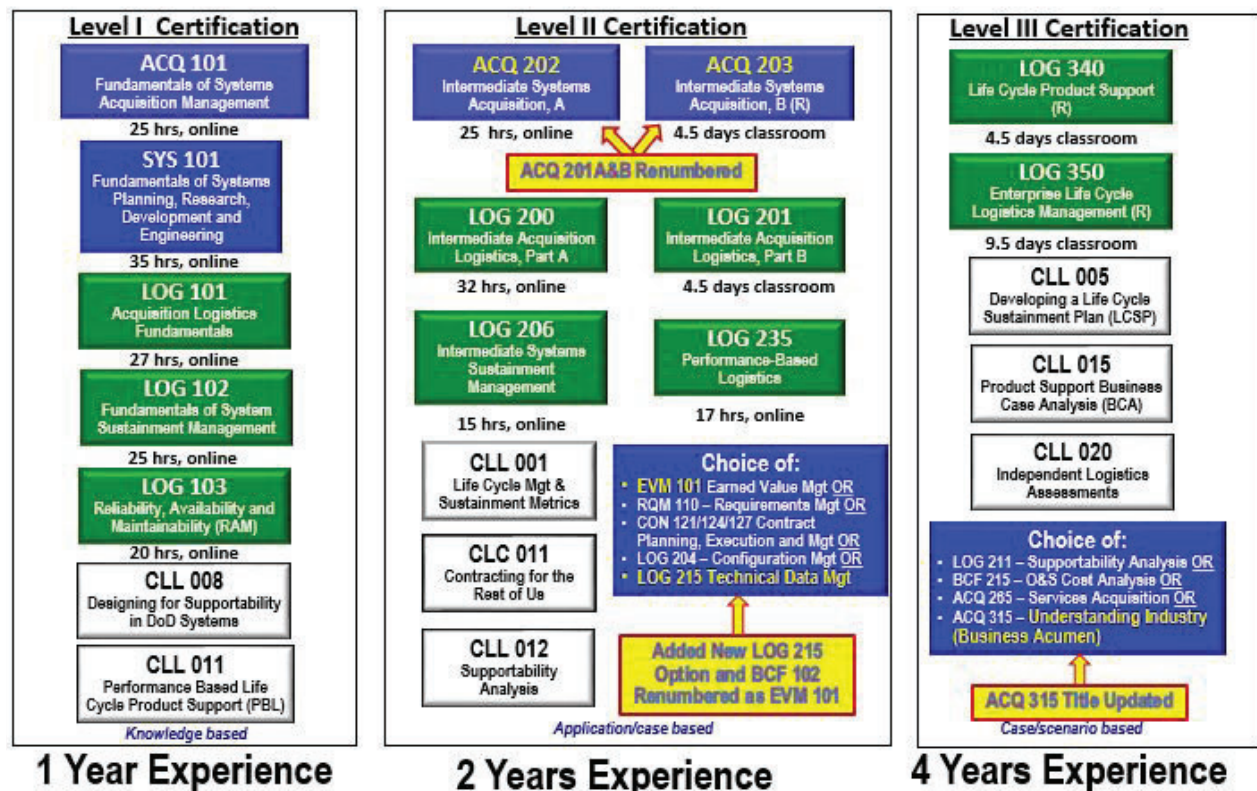


Figure 8. DAWIA Certification Requirements
(Defense Acquisition University, 2016)



The Product Support Manager's Career Path

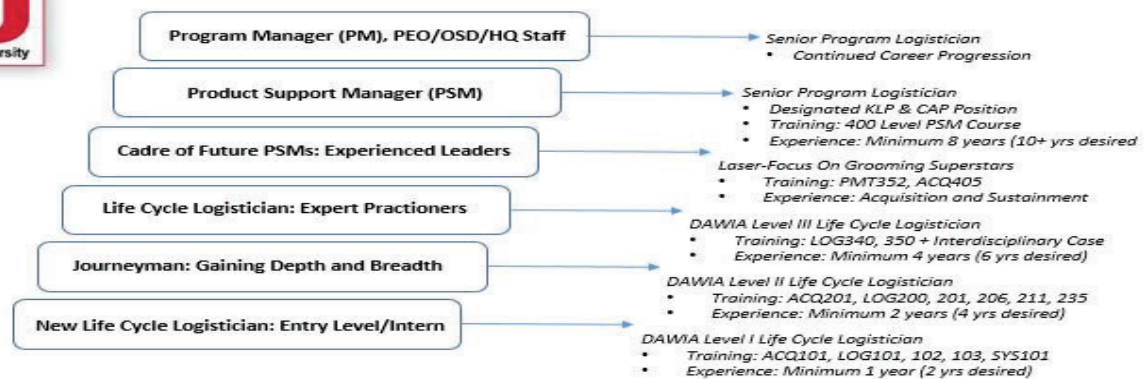


Figure 9. The Product Support Manager's Career Path
(Nicholas, 2016)

Since the research being conducted focuses on Army weapon systems, a provision for Army PSMs is valuable information. Figure 10 is the LCL model for Army personnel and clearly shows the inter-relationship between DAWIA certifications, acquisition education, and experience requirements of a career Army logistician. Figure 10 reiterates that an individual cannot attain the requirements necessary to serve as a PSM overnight and confirms there is a lengthy process that leads to developing an individual that can best serve as a PSM.

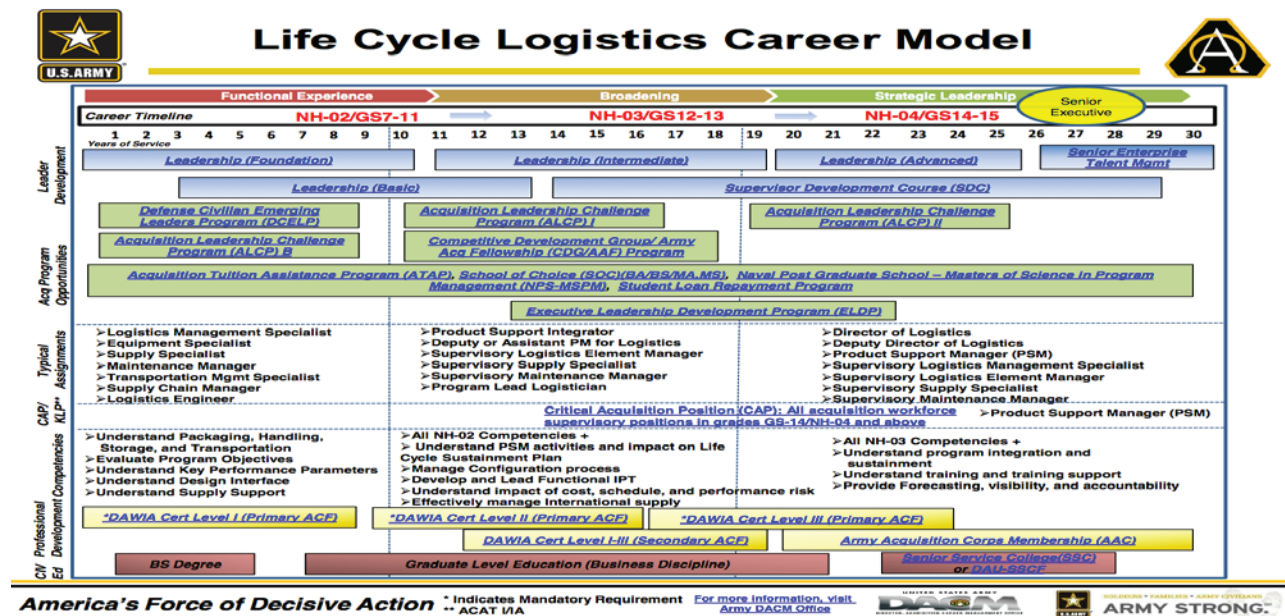


Figure 10. Army LCL Model
(Defense Acquisition University, 2016)

As stated in the PSM Guidebook (2015), “There is no single career path to becoming a PSM. There may be as many successful paths to PSM as there are qualified, experienced, and motivated candidates to fill available positions” (p. 87). The LOG 365/465 curriculum includes areas to build the complete acquisition leader. The DAU and DSMC have spent much time, effort, evaluation, dedication, and devotion to evolve PSM training into its current content with an end goal to build the best PSM possible (Nicholas, 2016). Three key areas are the cornerstone

to this training: 1) leadership development; 2) stakeholder management; and 3) development of a different perspective (Nicholas, 2016).

Leadership Development

The PSM course (LOG465) is much more than a logistics or acquisition course. One of the primary goals is to develop better leaders. The course flow and content includes leadership throughout every session. Much of the curriculum is based upon the writings of American author John C. Maxwell. Maxwell is the author of well-known leadership books to include, *Developing the Leader Within You* and *The 360° Leader*. The main tenant of the *360° Leader* book is that a good leader manages in all directions (Maxwell, 2005). While all leaders face challenges, the successful ones “Lead-Up”, “Lead-Across”, and “Lead-Down” (Maxwell, 2005). Maxwell goes further and states “a leadership team is more effective than just one leader” (p. 265), “leaders are needed at every level of an organization” (p. 269), “leading successfully at one level is a qualifier for leading at the next level” (p. 274), “good leaders in the middle make better leaders at the top” (p. 279), and “360° leaders possess qualities every organization needs” (p. 285) (Maxwell, 2005). Individual sections of LOG465 provide much needed information and tools a PSM can use in the performance of their duties. The overriding importance of 360° leadership is woven throughout the course. Figure 11 displays the complete two-week course of instruction. (Note the elements in green and their relationship to leadership).

Stakeholder Management

The role of the PSM encompasses integration within the weapon system Life Cycle and acquisition cycle. The PSM Guidebook provides an excellent summary to emphasize the role of the PSM, “Although the PM is the Life Cycle systems manager, the PSM is responsible to the PM for the lifecycle product support management. Effective product support strategies require

the participation and consensus of all stakeholders in developing the optimum sustainment strategy” (Product Support Manager Guidebook, 2015). The PSM course is designed to teach the PSM that they are involved in the acquisition process daily and they should take ownership in those efforts. Neither success nor failure of the weapon system is because of the PSM alone. Again, refer to Figure 11 for the course outline.

Perspective Development

Through research, surveys, and feedback, DAU determined another essential element that should be included in PSM training is one of expanding individuals’ perspective. The expansion of perspectives influences aspects from dollar value to technological complexity to multiple vendors. The PSM cannot only be familiar with certain elements of the process with little or no interest in the other areas. “All PSMs should be cognizant of their system’s supply chain from a logically bounded end-to-end perspective” (Product Support Manager Guidebook, 2015, p. 24). The PSM guidebook was utilized by DAU to include many training sessions to develop the PSMs perspective. Figure 11 includes all the specifics such as interfacing with technical partners, AT&L perspectives, and defense industry support. The training is designed to enhance the ability of the PSM to view things from another perspective and provide the broad view (Nicholas, 2016). Which in turn allows them to better impact the process to better support the weapon system (Nicholas, 2016). All of which better supports the soldier, the Army, and the Nation.

LOG 465 Week #1



Sector	Sector 1: PSM Formal Responsibilities [Ken Nicholas]	Sector 2: PS Performance Champion [Mike Bayer]	Sector 3: PS Strategy Architect [Randy Pilling]	Sector 4: PS Technical Partners [John Sullivan]	Sector 5: PS Team Leader [Greg Schlauch]
Leading					
A	Welcome to LOG 465!	Stakeholder Engagement Process	Apache Prime Vendor Support Strategy Case	Interfacing with Technical Partners	Week #1 Reflection
B	PSM's Legal Responsibilities	Joint Staff Requirements Perspective [J-4]	Product Support Strategy Analysis	Technical Partner's Perspective [SYS Eng/Cyber SME]	Are You Managing or Leading [DSMVC]
C	DoD Policy about PSMs	PS Performance Measures Across System Life-Cycle	Product Support Strategies	Analyze Stakeholders & Focus/Plan Engagements	Building and Leading Product Support Teams
D	Mount Everest Simulation	"Dozier" Ground Vehicle	C-65C "Atlas" Aircraft	PSMs and Product Support Analysis	Leading a Diverse Product Support Team [Sam Parks]
E	Looking Ahead	PSM's Online Resources	Technical Data Rights Panel [DAU, Industry, ...]	AT&L Perspective about LCSs [OSD-MR]	PSM's Leadership Development Goals

LOG 465 Week #2



Sector	Sector 6: PS Business Executive [Andre Murphy]	Sector 7: PS Contract Advocate [Betsy Lederer]	Sector 8: PS Fielding Ringmaster [Brian Blanchfield]	Sector 9: Sustainment Entrepreneur [Kevin Widmark]	Sector 10: PS Stakeholder Wrangler [Steve Brown]
Leading					
A	Cost Analyst's Perspective [OSD-MR]	PS Contracting and the Contracting Community	Public-Private Partnerships [Former Depot CMDR]	Leading Geographically Dispersed Teams	Week #2 Reflection
B	Defending O&S Cost Estimates	Ask A Contracting Officer [SME]	Leading Product Support Partnerships	System Sustainment Performance Improvement	DAU Center Director's Perspective [Bill Kobren, DAU]
C	Getting, Keeping, and Spending Money	Industry Product Support Contracting Perspective [Industry SME]	Defense Industry PSI's Perspective [Industry SME]	Elevating Product Support Strategy Panel [Service Reps]	Military Service Perspectives [Army, Navy, Air Force]
D	Product Support Cost Reporting	Performance-Based Product Support Contracts	Planning Product Support Partnerships	Support Strategy Validation	Graduation Speaker [OSD/L&MR]
E	AT&L Perspective about PSM Workforce [OSD-MR]	Integrated Bridge Navigation System	PSM's Fielding Challenges	Seminar Dinner	

Figure 11. LOG365/465 Course Content
(Nicholas, 2016)

PM Responses

Appendix C provides the exact wording of each survey question submitted to the PMs. The emphasis of the section is to provide the actual data compiled based on the survey results.

Chapter 5 contains data analysis.

Question #1: Are you currently serving as a PM or DPM? All respondents indicated in the affirmative. The levels of weapon systems under the participants' jurisdiction include sixteen ACAT I, fourteen ACAT II, fifty-eight ACAT III, and three Pre-Major Defense Acquisition Programs (MDAPs) that are anticipated to become ACAT I. Note, not all respondents provided their length of service as a PM or DPM. However, for those that did provide that level of information, the average time of service in these positions is approximately twenty-seven months.

Question #2: Do you have a PSM officially assigned to your PM? Sixty-seven percent (12 of 18) reported that there is an official PSM in the organization. Seventeen percent (3 of 18) reported there was no official PSM, while two reported the PSM was dual-hatted as the Logistics Chief. One respondent indicated there was no official PSM assigned due to the nature of his or her operation and funding.

Question #3: If you have a PSM, have they attended any PSM training, to include LOG365? Fifty percent (9 of 18) stated the PSM had attended LOG365. Of the remaining nine that had not completed LOG365, six were due to circumstances such as no PSM designated and therefore no requirement exists, two had no knowledge of the PSM training, with only one participant specifically expressing an awareness that the PSM had not attended LOG365 and was not scheduled to attend. At this point in the survey, the questions shifted from objective to subjective in nature.

Question #4: From your experience, are the PSMs of major acquisition programs obtaining the training they need? Follow up question: Can you identify any additional Life Cycle training or training improvements? The theme of the responses centered on there is not one magic formula to determine whether the training is effective. Responses included the caveat that individual training can occur, but the PSMs decide to either use or not use the training to become more effective. There was no clear majority of responses that specifically stated the training is adequate. The common theme of the responses was that PMs are satisfied with the training. Participant responses such as “Yes, the training is sufficient” and “Yes, my PSM has the full complement of PSM training and relevant experience to comply with current policy on PSM certification and experience standards” were included in the data. However, one participant commented that the training was insufficient writing “From my opinion I would say that the majority of the assigned PSMs are not getting the required training for the position. On the job training has been the most beneficial training to date from what I have seen. I would have to look at available classes that one can attend. I am sure there are classes, but official regulations training to go along with the work efforts is a good area that needs extra attention”. One participant responded “Not in favor of PSMs. Not sure how the Army thought it was solving a problem by putting a Core GS-14 LOG person in PMOs. The whole concept is bizarre. The Matrix LOG Chief performs the functions. If he/she is not performing you return them to the Matrix organization. What’s really at issue here is PM training as it relates to LOG. Put the onus where it belongs on the PM”. The participant’s statement therefore does not disparage the effectiveness of the training; clearly the respondent felt there should be no PSM training, because there should be no PSM. The more important information garnered from these related questions revolved around additional training or training improvements that could be recommended. The

respondents had a three-fold common theme. First, that logistics certification is critical to a PSM's success. Three respondents stated that Level III certification in LCL is a must, with two additional responses stating that a minimum of Level II certification in LCL is desired. Second, there is no substitute for logistics experience. Statements from the survey such as "Schooling is good and a foundation of knowledge is important. I believe On-The-Job-Training and continuing education by reading publications and LOG news is important", "The classroom training and many years of project office experience encompassing programs in all phases of the Life Cycle", and "My PSM grew up in a PM environment. If he had not, I'd recommend he attend PM training to become at least Level II in PM". Third, there is room for additional training to broaden the PSM's knowledge base. Suggestions from the participants include the addition of contracting and PM courses, with one stating "Recommend continued attendance at the annual PSM Workshop. Recommend DAU to host a regional workshop focusing on the how-to aspect of being a PSM. With two major PEOs in Huntsville (Aviation/Missile and Space) there are more than enough PSMs to make the workshop worthwhile. Recommend hosting an immersion event for PMs/DPMs and functional directors (e.g. Test, System Engineering, Software) to ensure common understand of PSM roles/responsibilities and alignment into the PM organization. This could be a half day seminar as part of a continuing education event, or professional development".

Question #5: What system acquisition or sustainment management experiences or assignments are necessary/desirable to prepare current or future PSMs? No responses that stated there is nothing valuable to add in terms of acquisition or sustainment experiences. All participants added insight from their perspective or made no comment at all. The feedback included a number of ideas that could potentially make the PSM perform better. While all

expressed the desire for additional experience, the answers varied enough that specifics are worth mentioning. See Appendix D for the complete list of responses.

Question #6: What are your expectations of a PSM? The PMs were quite candid in the responses and provided detailed information. As stated earlier, one PM does not believe in the PSM concept. Aside from no input from that PM, the remaining responses focused on logistics and sustainment. One participant responded, “Our LOG Chief acquired these PSM duties as part of their mission. Currently, that leader is overwhelmed with real world missions. I don’t support the PSM becoming a core function. This should remain with the supporting logistics command”. Another respondent provided “Candidly I don’t see anything the PSM is doing that the LOG Chief was not doing for the project office. It appeared we responded to a GAO report by adding a non-resourced position to the PM office. I don’t fully understand how to use the PSM. PMs were not consulted on ‘best use’ strategies for the PSM. We received a briefing on the concept and were told to implement. I believe the PSM role will evolve over time. To date, it remains a work in progress”.

The remaining participants each had a distinct opinion related to the expectations of the PSM. In addition, each respondent firmly aligned the expectations with overall mission performance and success. Appendix E includes the detailed responses.

Question #7: Does your PSM know your role as PM? Each PM that currently has a PSM assigned responded in the affirmative that the PSM knew the PM role. Several participants added additional input such as “Very well versed”, “The PSM and I talk all the time”, “We have had numerous discussions on roles and missions”, and “The PSM has consistently demonstrated that ability to understand my role”.

Question #8: What measures should be in place to measure PSM performance?

Individual, subjective answers crossed a myriad of topics in response to the question. However, the central theme centered on utilization of existing weapon system and acquisition performance metrics already in place. The PMs did not recommend any new PSM specific performance metrics. The key measurement areas included: fleet readiness, cost of sustainment, end user satisfaction, program to budget execution, phase/acquisition milestones, documentation accuracy and timeliness, stakeholder management, reliability & availability of equipment, maintainability, sustainment, and overall success or failure of the system to meet goals. The resounding theme revolved around that Life Cycle requirements are well documented. See Appendix N for a complete listing of acquisition program requirements. The PMs are holding the PSMs accountable to acquisition program requirements. Three participants specifically mentioned inclusion of program requirements in PSM annual performance objectives. The participants included comments such as “The PSMs performance is rated per the factors in CAS2NET (the Department of Defense Civilian Acquisition Workforce Personnel Demonstration Project known as AcqDemo)”. One PM responded that no new measurements should be developed, but the existing ones are not being adhered to in a strict enough fashion. The participant responded, “Senior leadership doesn’t vigorously apply and use the metrics that are already well-defined”.

Question #9: How are you building the bench for future PSMs to support your program?

The majority of PMs recognized the need to continually prepare individuals for the PSM position within a Program, Project, or Product office. Being a subjective question, the answers varied but a common theme emerged. The common theme encompassed the importance of providing opportunities for individuals to learn prior to being assigned as a PSM. There was no mention of

improving the selection process. See Appendix F for specific PM feedback on building the bench.

Question #10: Please share any additional comments regarding PSM training. The final question was geared towards providing each PM with an opportunity to speak freely and candidly (in a non-attribution environment) on anything the PM believed was value added to a discussion regarding PSM training. One response from a participant was “Again, a PSM candidate must have multiple jobs in different logistics areas; so he or she can build their experience to support the mission of a PSM (both sustainment and acquisition)”. Appendix G provides all participants’ comments.

PSM Responses

Appendix H provides the exact wording of each survey question. For the purpose of reporting the information received from the respondents, an abbreviated version of each question is listed. The emphasis of the section is to provide the actual data compiled. Analysis will be presented in Chapter 5.

Question #1: Are you currently serving as a PSM? The primary purpose of the question was to ensure that the proper individuals were answering the survey. The participants answering the survey had to be the correct recipients in order to prevent devaluation of the data collected. As mentioned in Chapter 3, sixteen individuals were sent the PSM questionnaire. Fifteen participants responded as currently serving in a PSM role. One participant working in MDA received a survey. As stated in Chapter 3, the MDA acquisition professional was included due to MDA transitioning to comply with the PSM directive. The MDA participant has been serving in the capacity of PSM but under a different title. For the fifteen serving PSMs, the average time of service (if included in the submitted data) in that position is approximately thirty-nine months.

The breakout of ACATs was very much in line with the PM responses, with ACAT I, II, and III all being managed by the PSMs.

Question #2: Have you attended any PSM training, to include LOG365? Only sixty-two percent (8 of 13) affirmed attendance in LOG365. Only one of the remaining five participants that have not completed the course stated a reason. That reason being “My workload is tremendous”. Two respondents indicated, while not having received LOG365, receiving “PSM training”. The participants provided no further details as to the PSM training involved.

At this point in the survey, the questions shifted from objective to subjective in nature.

Question #3: Are the PSMs of major acquisition programs obtaining the training they need? Follow up question: Can you suggest any additional Life Cycle system management training or training improvements? The overwhelming majority of PSMs responded in the affirmative, but with caveats. The caveats dealt with individual preferences or observations based on prior experience. One specific response worth noting was “I highly recommend that all PSMs go through the DAU Program Management training and become Level III certified”. All participants’ responses are included in Appendix I.

Question #4: What system acquisition or sustainment management experiences or assignments are necessary/desirable to prepare future PSMs? Similar to the PM responses, the PSMs were open and candid with suggestions of experiences that would better prepare a future PSM. One participant’s answer was:

“PSMs MUST have experience in a PM shop. That experience needs to include having provided Acquisition Logistics support to a system that has some development. Most programs have some type of new or spiral development. Assigning someone who only has “functional” logistics experience (Item/Missile Management, transportation, publications, etc...) into a PSM

shop only deepens an already steep learning curve for that PSM and frustrates the PMs as they don't understand what a PSM does and CAN do to enhance their operations".

The complete list of responses from the participants is Appendix J.

A number of respondents combined their answers to Question #5 and #6 creating the need to combine the data in the below section.

Questions #5 and #6: What are your expectations as PSM? What do you see as your role and mission? The responses contained little ambiguity to questions #5 and #6. Each respondent had a very clear vision of his or her job as a PSM. One area of commonality centered on dedication and devotion to supporting the program and the soldier. One participant responded the expectation includes "Primary advisor to the PM on Acquisition Logistics. Understand Life Cycle; Understand Logistics Elements/requirements; Be a Leader (for peers & subordinates)". A list of the responses to provide the complete picture of the PSM's feedback on expectations is located in Appendix K.

Question #7: Does your PM know your role? The underlying theme in the data indicates there has been (and is) some disconnect between the PMs and the PSMs in terms of roles and responsibilities. The PSMs did not reflect an overall positive opinion, with less than half stating that the PM knew the PSM role. Of the participants responding "no" to the question, the comments centered on a lack of understanding or a failure to communicate. Appendix L provides the complete listing of participant responses.

Question #8: What expectations does your PM have of you as a PSM? Some PSMs chose to not answer the question. Seven PSM participants responded providing results that vary in levels of favorability. The results must be viewed in a dialogic manner, reviewing each response for trends or areas of commonality. Responses ranged from "None that he has verbalized. I am sure

if he gets in trouble the blame will quickly find me” and “We have not discussed expectations” to “The PM involves me in the decision making process in all aspects”, “He expects me to be his logistics smart guy and to provide inputs how to best develop, field and sustain the platform”, and “The PSM is responsible to sustain the weapon system”. There is an indication that not all PSMs know expectations.

Question #9: Please share any additional comments regarding PSM training. The responses were varied with several themes emerging: 1) the importance of PSMs having knowledge of all aspects of the Life Cycle, not just sustainment; 2) the need for tighter incorporation of PM and PSM training; and 3) the lack of staffing for this position. Appendix M provides a list of all survey comments.

Findings

The existing DAU PSM training is excellent. From the research, the data indicates that DAU is not only following DoD guidance but also ensuring the content of the PSM training is thorough and complete. The PSM training is truly in-depth training to build an overall acquisition professional. The experience levels and career roadmaps are used across the DoD to ensure PSMs are prepared to perform the required duties. The research exhibits that DAU is incorporating all PSM related policy, to include the PSM guidebook.

The data indicates a disconnect between PM and PSMs regarding roles and expectations. The amount of guidance and policy that exists regarding the PSM role should leave room for little confusion as to the exact role of the PSM. The data indicates a lack of understanding and confusion regarding the role of the PSM with each PM appearing to view the PSM in a different manner.

The data revealed 50% of the PMs reported the PSM has attended the proper training and 62% of the PSMs report that same response. The lack of agreement indicates a disconnect between the PM and PSM.

The data indicates the existence of a communication issue between PMs and PSMs in a number of weapon systems. Some PMs view the PSMs as the Logistics Chief instead of the long-term conduit for the program for all things sustainment, not just logistics.

The acquisition process for Army weapon systems is extremely complex. The responsibilities and requirements placed upon a PM and PSM are equally complex. The research focused primarily on the training associated with PSMs to determine the adequacy and effectiveness of the training. Training is not the only aspect of education that will produce effective PSMs. Rather, training is just one of many components needed and required to make the acquisition process a success. The research is an excellent foundation for individuals involved in the acquisition process to expand their knowledge of PSM training. Chapter 5 provides recommendations to further improve the training that will benefit future PSMs and PMs.

Chapter 5 – Conclusion, Recommendations, & Overall Summary

Conclusion

The constantly updated DAU training captures the intent and substance of the PSM initiative. The findings of a) a delta between the respective PM and PSM interpretations of roles and responsibilities, b) a delta between the PM and PSM views of whether the requisite training had taken place, and c) a non-completion rate anywhere from 38% to 50% across the enterprise provide evidence that a PSM effectiveness issue exists.

Additionally, the overall pedigree of responses from the survey audience of PMs and PSMs does not correlate to a definitive explanation of the root cause of PSM effectiveness. There are situations where an untrained individual can still be effective through their own initiative, experience, and relationship with their PM. There are also situations where a “trained” individual can be a very ineffective PSM for similar reasons.

Training should never be considered as complete or the training development process for PSMs final due to the changing environment. As the acquisition process changes and lessons are learned, the training requirements will continue to evolve. The research indicates that the PSM curriculum developed by DAU and DSMC is one of the highest quality. Another piece of evidence of the PSM curriculum is derived from the American Council on Education (ACE) report of November 2015. The ACE (2015) report shows, the Executive PSM’s course (LOG465) received a credit recommendation of three semester hours in PSM or business management in the graduate degree category (American Council on Education - College Credit Recommendation Service, 2015). Further research reveals that the PSM curriculum is still evolving. One of the next steps of the evolution is the development of more case study based teaching. Figure 12 below shows the development of case study based method.

Case Life-Cycle Process

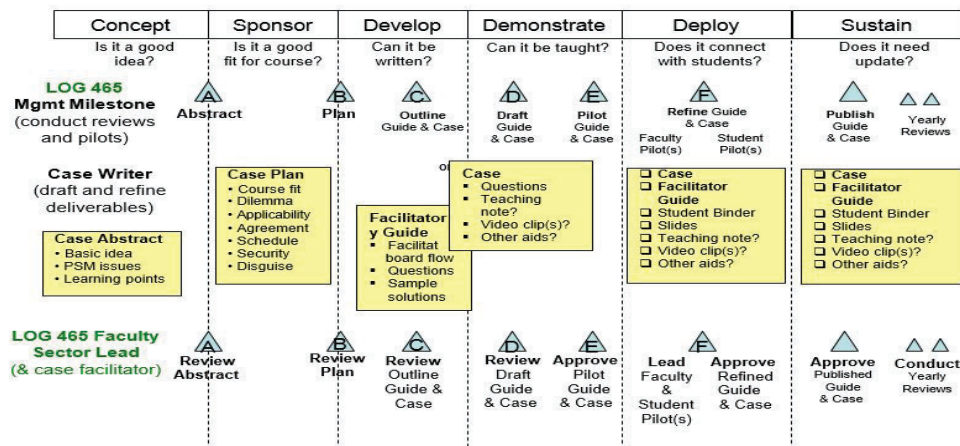


Figure 12. LOG465 Case Life Cycle Process
(Nicholas, 2016)

There must be a continual re-assessment of the material, continual feedback from the Materiel Enterprise itself, and a continual review of the statutes and doctrine associated with the PSM. Faculty of DAU and DSMC should review the above research to provide further insight into more specifics for training incorporation. Further, case study reviews for currency and applicability should occur consistently.

The problem statement and research question responses provided suggestions, thoughts, and ideas for a continually evolving solution to the research. Changes in the acquisition environment such as technology and national doctrine creates the need for the PSM role to continue to evolve. The acquisition workforce must never overlook the primary original reason for the development of the PSM to improve LCL, especially in terms of reducing cost. The data indicates the PSM is responsible to ensure a *Long-Term* view of LCL remains.

“Under Life Cycle Management (LCM), the PM, with *responsibility delegated to the PSM* for product support activities, is responsible for the development and documentation of an acquisition strategy to guide program execution from program initiation through re-procurement of systems, subsystems, components, spares, and services beyond the initial production contract award, during post-production support, and through retirement or disposal” (Product Support Manager Guidebook, 2015).

Recommendations

The survey results were combined with the overall research of the PSM concept. The research data provided the basis for the following recommendations.

Recommendation #1. Institutionalize management controls within DoD. Ensure all PSMs receive the requisite training, with stricter enforcement and accountability at the PEO and

PM levels for lack of attendance or completion. The PSM, while still a relatively new concept in the overall acquisition process, is mandated by law. Federal Law supports the PSM position, created in 2009, (10 USC 2337). However, in 2015/2016, PMs and PSMs managing Army Aviation and Missile weapon systems reported that a large percentage of the PSMs have not attended LOG365/465, the primary PSM course. The PM responses reported of only fifty percent attendance to the LOG365/465 course, combined with PSMs self-reporting that almost forty percent had not attended the training. The research indicates an ineffective PSM training attendance and enforcement program while showing the inter-relationship between DAWIA certifications, PSM professional development, the PSM career path, and the LCL career model. Implementation of a training enforcement effort similar to that employed in the Civilian Education System (CES) should be considered immediately. Note: The DoD has recently taken specific action to ensure that not another PSM designation should occur without completion of LOG465. All PEOs and PMs, including DAU, should take special action to review and implement the memorandum from Mr. Paul Peters, Principal Deputy Assistant Secretary, ASD(L&MR), Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, United States Department of Defense pertaining to the mandatory requirements for PSM training. The memorandum in its entirety is included as Appendix O.

Recommendation #2. Institute and incorporate PSM training into PM training (and PM training into PSM training where applicable). As evident in the research findings, the PM and PSM must work together in a coordinated fashion throughout the weapon system Life Cycle. A new PM will undoubtedly come into a position without the same understanding of the PSM for that program as his/her predecessor. Embedding PSM training into PM training would do much to lessen that potential impact. All would also be applicable to a PM. Individual eighty-minute

modules embedded within the existing Program Manager's Course (PMT401) would be a specific recommendation. The PSM Guidebook should be included as recommended reading for any senior leader in a PMO. The research provided evidence of no common understanding of the role of the PSM. The PMs and PSMs revealed varying perspectives regarding roles and responsibilities. For example, the majority of PM responses revealed the PSM was strategically involved, but the PSM responses did not reflect the same understanding. Specifically, the data indicates a majority of respondents viewed the PSM as the logistics lead rather than the Life Cycle lead. A thorough review of the PSM guidebook will eliminate any misconceptions to roles and responsibilities.

Recommendation #3. Relook the selection and staffing process associated with PSMs to ensure proper PSM training is a criteria. There was almost zero reference to the selection process by the respondents. While PMs did acknowledge efforts from their own perspectives, to build the bench, there was no mention of being involved in the actual selection of PSMs. In fact, the participants' general idea was that PSMs just emerge from the logistics world.

Recommendation #4. At the PEO level, determine if adequate resources and staffing are in place for the PSM position. No special provisions exist to properly fund and staff the PSM, what many PMs stated is a new position, were created. The lack of funding and staffing could influence performance, as noted by several participants' responses mentioning lack of time or other mission requirements. Another impact is the ability to retain qualified individuals for the position.

Recommendation #5. Conduct a research study to determine the tangible evidence of reduced costs or cost benefits attributed to the PSM position and the efforts throughout a program Life Cycle. A number of respondents in the research mentioned cost as an important

factor, but no participant actually provided any tangible evidence of reduced costs or cost benefits achieved. The lack of input, combined with varying levels of commonality with regard to the role of the PSM, does not mean that cost savings are not occurring. The research data questions whether the PSMs are being utilized to their maximum potential and benefit. A research paper from a previous SSCF student in 2014 showed a similar opinion. That research asked the question, “Are you of the opinion that establishment of the PSM has reduced LCL?” (Glazik, 2014, p. 22) with results that were inconclusive, if not slightly negative (Glazik, 2014, p. 22). A specific cost benefit research study would help determine the true status of the cost benefits of the PSM.

Summary

The PSM position plays an integral role in the Defense acquisition process in the long term. Improving LCL is the role of the PSM, especially in terms of reducing cost. Previous research concluded, “The PSM effects have yet to be seen” (Glazik, 2014, p. 33). In 2015/2016, research results revealed a continued questioning to the effectiveness of the PSM role.

The research may be used as the foundation for additional studies and recommendations in the PSM concept. The objective of the research is to enhance the PSM position and improve the overall Defense acquisition process.

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Glossary of Acronyms and Terms

ACAT	Program Acquisition Categories & Types
ACE	American Council on Education
AMC	Army Materiel Command
AMCOM	Army Missile & Aviation Command
APM	Assistant PM
AR	Army Regulation
AR70	Army Acquisition Policy
ASAALT	Assistant Secretary of the Army for Acquisition, Logistics & Technology
ASD(L&MR)	Assistant Secretary of Defense for Logistics & Materiel Readiness
ATL	Acquisition, Technology, & Logistics
BCA	Business Case Analysis
BBP	Better Buying Power
BMDs	Ballistic Missile Defense Systems
CAE	Component Acquisition Executives
CAP	Critical Asset Position
CP	Career Program
CP13	Career Program Supply Management Career
CP17	Career Program Materiel Maintenance Management Career
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAS	Defense Acquisition System
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Improvement Act
DoD	Department of Defense
DODD	Department of Defense Directive
DPM	Deputy Program Manager
DSMC	Defense Systems Management College
EEPEG	Equipping Program Evaluation Group
FMECA	Failure Modes, Effects, and Criticality Analysis
FMS	Foreign Military Sales
FRACAS	Failure Reporting, Analysis, and Corrective
FY	Fiscal Year
GAO	Government Accounting Office
IAW	In Accordance With
IPS	Integrated Product Support
IPT	Integrated Product Team
KLP	Key Leadership Position
LCL	Life Cycle Logistics
LCM	Life Cycle Management
LCSP	Life Cycle Sustainment Plan
MAIS	Major Automated Information Systems
MAJCOM	Major Command
MDA	Milestone Decision Authority

Glossary of Acronyms and Terms (con't)

MDAP	Major Defense Acquisition Program
MDA	Missile Defense Agency
O&S	Operations and Sustainment
OJT	On-The-Job-Training
PBL	Performance Based Logistics
PDR	Program Decision Review
PEG	Program Evaluation Group
PEO	Program Executive Office
PM	Program Manager
PMO	Program Manager Office
PMT	Program Manager's Course
PSI	Program System Integrator
PSM	Product Support Manager
SME	Subject Matter Expert
SSPEG	Sustaining Program Evaluation Group
SSTS	Sustainment Systems Technical Support
TAPES	Total Army Performance Evaluation System
TTPEG	Training Program Evaluation Group
USC	United States Code
USDAT&L	Under Secretary of Defense Acquisition, Technology, and Logistics

Appendix A
Survey Questions for DAU and DSMC

1. What is your position related to training of PSMs? (Please don't identify yourself by name but rather as professor of logistics, senior staff, etc....) In that position what is your role? (Develop curriculum, develop policy, instruct, etc.....)
2. In terms talent management – How is DAU/DSMC supporting the military services in building the bench for future PSMs?
3. How are Career Program 13/17 and Life Cycle Logistics certifications being synchronized/integrated for meeting talent management requirements of PSMs?
4. How do those “wanting to be PSMs” become PSMs?
5. What is their path?
6. Please share any additional comments regarding PSM training

Appendix B

PSM Guidebook: Training, Certification, and Experience Requirements

Background. To successfully achieve the expected product support and Life Cycle outcomes articulated in statute and policy, DoD and the Components must have the right people, provided the right authorities, afforded the right resources, and with the right mix of experience, expertise, leadership, training, and education assigned as PSMs. These individuals must understand how acquisition and sustainment intersect, why Life Cycle management is so critical, and how to design for supportability from the earliest stages of program development. Although each of the Services (and Defense Agencies which have PSMs assigned) depicts their notional career roadmap for the PSM position slightly differently, there are many commonalities across the Department of Defense. The notional PSM career path includes progressive leadership growth, with focused education reaching beyond the minimum DAWIA educational and experience requirements to shape and develop the Life Cycle logistician into PSMs, and when appropriate, into future senior executives with even greater responsibilities. It starts with clearly articulated requirements, and a rigorous commitment to human capital professional development. It continues with clearly understood competencies, a commitment to learning, and a robust and current suite of training and tools that are viewed as opportunities to prepare the individual for rigorous expectations to come. It includes robust mentorship, preparation, and a career roadmap for the individual, as well as an organizational focus on what it will take to ensure programmatic success potentially years into the future.

To ensure both current PSM success and future PSM professional development, it is imperative that DoD, the Components, Major Commands, and individual PEOs and program offices commit to the following five principles:

- Build a workforce with expertise, breadth and depth.
- Commit to grooming future PSMs through identification, mentoring, and coaching.
- Commit to and foster a culture of continuous lifetime learning.
- Make investing in professional development a priority.
- Continuously refine the required competency set for Life Cycle logisticians and PSMs.

2. PSM Position. To facilitate successful achievement of program product support goals and responsibilities:

- a. PSMs are assigned to every ACAT I and ACAT II program, prior to but no later than program initiation and to former ACAT I/II programs that are post-IOC or no longer have PMs reporting to Component Acquisition Executives (CAE).
- b. The PSM position is designated in the Life Cycle Logistics position category
- c. PSM positions for all major weapon systems must be certified at Defense Acquisition Workforce Improvement Act (DAWIA) Level III in the Life Cycle Logistics career field in accordance with DoD Instruction 5000.66, which includes achievement of general educational, training, and experience requirements.
- d. In support of the PM's responsibility required by DoD Directive 5000.01, the PSM has a direct reporting relationship and is accountable to the PM for product support. This does not preclude the PSM from having a dual reporting relationship to a DoD Component logistics or materiel command.

Appendix B (con't)

- e. For Major Defense Acquisition Programs, major weapon systems, and programs that are post-IOC or no longer have PMs reporting to CAEs, the PSM may have a direct reporting relationship to a DoD Component logistics, sustainment, or materiel command.
 - f. The terms PSM, Director of Logistics, Assistant Program Manager for Logistics, Deputy Program Manager for Logistics, Program Lead Logistician, and System Support Manager are considered synonymous but PSM is the preferred term.
 - g. The PSM position shall be a KLP for all ACAT I programs, and a CAP for all ACAT II programs.
 - h. Cross-certification at DAWIA Level II or above in the Program Management, Systems Engineering or Business-Financial Management career fields should be considered as valued criteria during the selection process.
 - i. DoD Components are encouraged to establish PSM positions for other acquisition programs not defined as major weapon systems (e.g., Acquisition Category III programs). For acquisition programs not defined as major weapon systems, a single individual may serve as the PSM for multiple systems and products where the PEO (for portfolio PSMs at the PEO level) or PM determines such assignment is effective.
 - j. PEOs may utilize matrix support personnel from a materiel or systems command (via a memorandum of agreement for positions in support of the PM/PSM), but shall not fill Core PSM positions with matrix personnel.
 - k. Assigned PSMs will be required to take the LOG365 Executive Product Support Manager's Course available from the Defense Acquisition University.
 - l. PSMs assigned to a Key Leadership Position (KLP) on an Acquisition Category (ACAT) I Major Defense Acquisition Program (MDAP) or Major Automated Information System (MAIS) program will also be required to meet established DoD KLP training, education, and experience requirements.
 - m. Hiring or insourcing PSMs with industry or commercial sector background and possessing commensurate product support-related experience, skills and expertise similar to their government counterparts is encouraged.
3. PSM Career Path. There is no single career path to becoming a PSM. There may be as many successful paths to PSM as there are qualified, experienced, and motivated candidates to fill available positions. However, generally speaking the PSM career path will include the following:
- a. Entering the Life Cycle Logistics (LCL) Workforce. Entrance to the LCL workforce will be from one of several avenues for civilians, veterans, and military personnel. Civilians and veterans have application options using USAJOBS.gov, the official jobsite for the Federal Government. Within USAJOBS, applicants are distinguished as external and internal hires. External hires from industry are encouraged where appropriate. Entrance to the LCL workforce may occur at various points in one's career with differing levels of experience and expertise within the larger acquisition and logistics community. By the time one is assigned to PSM positions they must be in the LCL workforce. While the majority of DoD civilian Life Cycle logisticians are assigned to 0346 Logistics Management Series, internal applicants can cross train by applying for a LCL position from other logistics occupational series such as 0343 Management and Program Analysis, 1670 Equipment Specialist, 2010 Inventory Management Specialist, and others outlined in the DoD Life Cycle Logistics Position Category Description

Appendix B (con't)

(PCD). Internal applicants also have various Service/Defense Agency-specific career programs that provide opportunities to enter the LCL workforce. In addition to DoD civilians, PSMs can also come from the ranks of uniformed military personnel. Most DoD logistics officers start their careers in field units for their first four years. After those first four years, a multitude of opportunities are available to officers. To develop LCL experience, Logistics officers can be directly assigned to a LCL coded position by the assignment team. As a Company Grade Officer, military logisticians can also be competitively selected for Logistics Career Broadening Program (LCBP). After gaining initial experience and Level I and possibly Level II certifications, officers will move between operational assignments and LCL positions to ensure career progression and meet the requirements for the LCL experience. Overall, officer development is similar to civilian LCL development with the exception of operational experience for the military officer. Members with diverse logistics backgrounds often possess competency sets that allow them to be very competitive for entry positions in the LCL workforce. The 2008 DoD Logistics Human Capital Strategy identified seven key LCL competencies, with varying levels of proficiency that DoD significantly values. These include:

- Logistics Design Influence
- Integrated Product Support Planning
- Product Support & Sustainment
- Configuration Management
- Reliability & Maintainability Analysis
- Technical/Product Data Management
- Supportability Analysis

Additionally, the department and the Components have identified specific attributes that are valued within the LCL workforce:

- Broad depth and breadth of experience, including serving on programs in different phases of the Life Cycle, logistics experience in operational MAJCOMs, joint service experience, and depot operations experience
- Multiple DAWIA certifications
- Exceptional Life Cycle product support and subject matter expertise
- Higher-level educational training, including undergraduate and graduate degrees
- Operational and/or joint operational experience
- Professional logistics certifications desired such as the International Society of Logistics Certified Professional Logistician (CPL) or a Supply Chain Management certification

b. Gaining Breadth and Depth as a Life Cycle Logistician. Personnel should focus on gaining not only breadth of experience, but also depth of experience. Breadth means experience across the LCL competency areas listed above, as well as other logistics areas outside of the Defense acquisition workforce, including the three other workforce categories identified in the 2008 DoD Logistics Human Capital Strategy (supply management, maintenance support, and transportation/deployment/distribution). Depth means progressively increasing expertise in each of the competency areas. Expertise in all aspects of product support, both planning and execution, is essential as Life Cycle logisticians progress in their careers. To fully gain breadth and depth of experience, LCLs need to consider opportunities within both traditional acquisition and sustainment organizations, including serving at organic depot level maintenance and/or materiel management organizations in order to develop and maintain a high level of system

Appendix B (con't)

sustainment expertise. LCLs should work with their supervisors to identify broadening opportunities that will enable them to obtain this experience.

c. Grooming LCLs for Entry into Senior Leadership. Life Cycle Logisticians who have fully achieved the breadth and depth of competencies discussed in the previous section should continue to seek opportunities for professional growth. At this stage in their careers, LCLs should focus on opportunities to obtain broadening in areas outside of the Life Cycle logistics functional stall. Areas of particular importance include systems engineering, business, cost estimating, financial management, contracting, and most importantly, program management (PM). Life Cycle Logisticians are particularly encouraged to seek program management broadening since much LCL work, especially for programs in the Operations and Support (O&S) Phase, can leverage the program management concepts, tools, and training. Additionally, program management expertise may afford personnel career opportunities outside the LCL workforce that may not otherwise be available. Interested individuals should work with their manpower & training organizations to craft a tailored career broadening program that will provide personnel opportunities to cross-train and cross-flow between the Program Management, Systems Engineering, or Business/Financial Management communities and the LCL workforce.

d. Core PSM: Expert Leaders. Experienced Life Cycle logicians who meet the criteria outlined in this Appendix will have the breadth, depth, and expertise to assume responsibility as a formally assigned, fully qualified DoD PSM.

e. Graduated PSMs. Senior LCLs who have served as a PSM will have the background, experience, and expertise to serve in a variety of other related positions. Examples include becoming the PSM of a highly visible program such as the F-35, serving as APEO (Logistics) on a Program Executive Office (PEO) staff, or assuming a senior leadership role within the broader logistics community at OSD, the Joint Staff, Service headquarters, or a MAJCOM. Senior LCLs may also find opportunities to serve as Program Managers or even PEOs within the program management community.

Appendix C
Survey Questions for PMs

1. Are you currently serving as a PM or DPM? (Please identify which one) If yes, are you officially designated as such and for how long have you been serving? Please identify the Acquisition Category (ACAT) of your program (ACAT I, II or III)
2. Do you have a PSM officially assigned to your PM? If no, who is currently performing those roles? (Do not identify by name, but rather by position/organization)
3. If you have a PSM, have they attended (to your knowledge) any PSM training, to include LOG365?
4. From your experience, are the PSMs of major acquisition programs obtaining the training they need? Follow up question – Can you suggest any additional Life Cycle system management training or training improvements other than on-the-job training that would assist future PSMs in dealing with the challenges they encounter on their programs?
5. What system acquisition or sustainment management experiences or assignments are necessary/desirable to prepare current or future PSMs for the challenges they will encounter on their programs?
6. What are your expectations of a PSM? What do you see as their role and mission?
7. Does your PSM know your role as PM?
8. What measures should be in place to measure PSM performance?
9. How are you building the bench for future PSMs to support your program?
10. Please share any additional comments regarding PSM training.

Appendix D

Specific PM Feedback on Suggested Experiences for PSMs

- The challenges that a PSM must contend with include stakeholder management; contract subject matter expert oversight; performance-based logistics management; engineering change proposal assessment; production, delivery, and new equipment training management.
- It would be very beneficial to pair “new” PSM’s with a more senior PSM in a mentor/mentee relationship. Early on, PSMs need to understand their role within the organization and a mentor can assist in “showing the ropes” to the new PSMs.
- They must fully operate in the PM environment. In addition to being expert logisticians, they must be experts in contracting, budgeting, scheduling, and execution.
- The PSM should have the knowledge and experience in both acquisition and sustainment logistics. This can be obtained through serving in jobs such as - Product Level Logistics Manager and Provisioning and Publications Development
- Having Business Management and Assistant Program Manager (APM) (measuring cost, schedule, and performance) experience would assist in the position. The exposure of budget preparation and briefing is valuable. Completing a rotation in contracts of 3-6 months would be of help as well.
- Developmental positions within the National Capitol region are helpful. Knowing the upper level process that drives the regulations and procedures within the Project Office are helpful to continue the Life Cycle sustainment required for the program to function within bounds.
- Logistics engineering courses, project management training, and on the job training are all important. PSMs need several project office assignments to be effective. This is a critical requirement. Hopefully these assignments are with programs that are in different phases of the Life Cycle. PSMs need to understand the mission and objectives of a project office and specifically the role logistics plays in the development, production, fielding and sustainment of weapons systems.
- I prefer to assign a person as PSM that has Life Cycle sustainment experience across all phases of the Life Cycle. At a minimum, they must be LOG level 3 qualified and have prior experience at that phase the product is in and the follow on phase for planning. As with anything, exceptions can be granted but that would not be the norm.
- In a perfect world, a PSM would have real world experience in all aspects of a program lifecycle. This is not a realistic expectation but in general, the more and the broader the experience base the better.
- As a Target Goal or Roadmap, PSMs should have a minimum of:
 - a) 15 years of total Logistics Experience in GS-346 Career Field with at least 5 years in ACAT I program

Appendix D (con't)

- b) An approximate 60% to 40 % “balance” of logistics experience in the 2 broad career fields of
 - 1) Acquisition Logistics and 2) Sustainment Logistics (Maintenance and Supply)
- c) At least 3 years of experience in the following Life Cycle Phases:
 - 1) Research and Development
 - 2) Production and Fielding
 - 3) Operations and Support
- d) At least 5 years of Experience leading/managing at least 15 subordinates in a PEO-level Project Office
- e) Preferred Experience in the following areas:
 - 1) Both Contractor and Organic Depot-Level Support
 - 2) At least 2 different Commodities
 - 3) Field Readiness and On-Site Retail-level Technical Support

Appendix E

Specific PM Feedback on Expectations of a PSM

- My expectations of the PSM are no different than my expectations of the Logistics Director.
- The PSM is my direct representative for product support and is responsible for ensuring the systems we design, develop, and deliver operate affordably and reliability as our Users require. They maintain constant iterative analysis of data and feedback from the field; identify areas for product improvements - develop appropriate business cases; adjust performance requirements and resources across product support integrators and product support providers to maintain efficient operations; implement strategies to constantly optimize system performance
- Develop a lifecycle sustainment program and execution plan that nests within the PM's overarching Acquisition Strategy and Plan.
- Accomplish the Mission below and keep me out of trouble. (This PM then included a listing of PSM roles straight from the PSM guidebook).
- PSM should develop strategies for Sustainment and ensure BBP 3.0 is adhered to. They should advise the PM on all logistical matters and offer courses of action to issues. The PSM serves as a Logistical Subject Matter Expert (SME) and adviser to the PM.
- I see the PSM as more than just the logistics lead. They are also responsible with the direct interface with AMCOM, AMC and the Army G4. They need to manage as well as lead the organization with regards to logistics and interfacing with sustainment. They should know the regulations, the interaction with the national depots and use of allotted funding to maintain the project office's assigned fleet.
- Provides the guidance and support which ensures all Life Cycle phases of the weapon system are achieved IAW applicable policy and regulatory guidance. Their role is to look at the system Life Cycle and ensure required factors/documentation are addressed in the acquisition strategy and the required planning/implementation is adequately addressed for each milestone and sustainment. They serve as the PMs primary resource for logistics guidance, planning and execution.
- My expectations of a PSM are: Provide leadership; Provide best guidance and recommendations; adjudicate the wicked problems; Assist in the management of external stakeholders; Stay up-to-date on logistic policy. From my perspective, the primary role of the PSM is to assist the PM in the management of the entire scope of logistics activity for the project office.
- Lead the planning and execution of the program's Life Cycle logistic for a PM who is the Life Cycle manager. Their role and mission is to develop support strategies and implement the approved live-cycle support plan.
- A PSM is the single point of contact for the PM to touch and hold RESPONSIBLE for the sustainment of the program. In all areas related to sustainment including planning and execution.

Appendix E (con't)

- I expect the PSM to inform and to provide guidance and advice in establishing internal policy and procedures to ensure programs meet all sustainment and logistics considerations. They should keep abreast of changing policies, guide and mentor Log and sustainment personnel within the PM and assist in charting a strategy to ensure programs are successful in executing cost, schedule and performance mandates. They should also serve as the liaison between the PM and ALC in crafting the personnel makeup of the PM and ensure positions are filled as appropriate.
- A senior and seasoned multi-disciplined logistician with demonstrated skill and related experience in all of the PMO disciplines: program/project management, business management, systems engineering, configuration management, product assurance, contracting, etc. A role and mission as the 'Master' of Logistics and Product Support for their assigned program. A person who thinks and acts like a PM, who has a continuous Life Cycle strategic perspective, who can effectively battle with other Senior PMO Leadership (Chief Engineer) to balance cost, schedule, performance in all PMO decision making in the best interests of the soldier, taxpayer, and program (in that order).

Appendix F

Specific PM Feedback on Building the Bench

- Building of the bench is the responsibility of all but primarily falls to the organization from which the Project Office receives the logistics matrix support. In our case it is the AMCOM Logistics Center. The Project Office needs to take some ownership of this as well by offering them broadening assignments within the project office or additional training. While employee training is important, it is hard to measure as to effectiveness in building the bench. Not every employee will grow up to be a PSM....some don't want the responsibility, others don't have the capacity. So I think the best we can do, is identify those with potential and shape/influence their career track.
- We have identified potential future PSMs working in our Logistics Division. In addition to experiential learning, they are attending the requisite DAU training.
- Mainly OJT.
- We have five Product Level (GS-14) Logisticians being mentored by the current PSM.
- All NH-3 0346 Logisticians are being required within AcqDemo and Total Army Performance Evaluation System (TAPES) to complete Level III Program Management at DAU. There is also a rotation process that is being established to broaden experience on other platforms.
- The assignment of leads for various activities builds the bench for us within this program. The integrated logistics branch lead that we have is the primary bench to build PSM replacements. That being said, having the top three branches under my PSM are three key positions that we use to develop personnel for these PSM duties/positions. They serve as suitable replacements when the PSM is out and they support multiple functions over the period of the year to learn and develop professionally.
- Provide the necessary training at the GS-12/14 levels. Assign individuals as Integrated Product Team (IPT) leads to gain the logistics experience necessary to perform the PSM tasks/responsibilities. Ensure logistics personnel obtain the necessary jobs to obtain the diverse background required to serve as a PSM. Make use of rotational and developmental assignments.
- We have added additional duties to the LOG division chiefs in support of the PSM role. Again, the position is too new to fully answer this question.
- Within the project office, we identify high potential personnel that have the right skills and potential to function as a PSM. We assign these individuals as deputies with broad oversight over the spectrum of logistic activity. We also give them special broadening projects that would benefit the roles and responsibilities of a PSM.
- Program System Integrators (PSIs) are the bench building for future PSMs.

Appendix F (con't)

- There has not been an effort at this time for ALC and PEO to develop a program. ALC should be the one identifying candidates and ensuring they are following a program that provides a multi-discipline logisticians.
- At present we are not. Ultimately we will have log professionals executing specific activities to provide the necessary experience to be a PSM. Additionally, any personnel in this career category will be expected to maintain appropriate certification level.
- In basket PMs with a multitude of programs, building the bench is more difficult than single product large programs. ALC is not growing PSMs in their organization. Since we matrix most of those positions from ALC, it's difficult for us to then grow them once they are matrixed over.
- Unfortunately, no. However, I see building the "PSMs bench" as primarily a Functional Responsibility of the ALC since we use the ALC for all of our matrix logistics support. PEOs have a secondary/support role in building the ALC bench. PEO/PM role is to provide "career enhancing" and "focused developmental assignments" for the ALC to use to build the experience base of individual's career pursuits.

Appendix G

PM Additional Comments on PSM Training

- I'm still not sure how a PSM is different than a Log Chief? We have always been aligned for our Log Chief to execute all of the duties we now ascribe to the PSM.
- Again, a PSM candidate must have multiple jobs in difference logistics areas; so he or she can build their experience to support the mission of a PSM (both sustainment and acquisition).
- We don't hire people that have no experience. The idea that to get a PSM Job requires formal training may be exaggerated. We hire people who have real life experience in logistics to begin with.
- It goes without saying how important the job is for the PM. Training in addition to the experience is required and essential to have the best prepared PSM that we can have. If training is not immediately available then training should be scheduled and held to let the PSM become proficient. Too many instances the job gets in the way and keeps the training at bay. Leaders and managers need to allow the time to train their personnel.
- Training is critical to the underpinnings of a good PSM. Experience and training go hand in hand.
- I fully support the role of the PSM and believe the position will benefit the PM long term. The Equipping (EE) Program Evaluation Group (PEG) and the Sustaining (SS) PEG have more work to complete to baseline the role and distinctions between the LOG Chiefs and the PSM.
- DAU training seems adequate however additional Depot 101 training at an Army depot and training with industry would enhance PSM skills.
- Push to get more people into LOG365.
- Develop a junior-level equivalent course to LOG365 for GS-13/14 level logisticians who have demonstrated ability and a career goal to be a PSM.
- Develop in-house training for Senior Leaders and PSM Experts. Five-day local courses using the excellent PSM tools available (e.g. PSM Guidebook, Performance Based Logistics (PBL) Guidebook, Latest Best Practices)

Appendix H
Survey Questions for PSMs

1. Are you currently serving as a PSM? If yes, are you officially designated as such and for how long have you been serving? Please identify the Acquisition Category (ACAT) of your program (ACAT I, II or III)
2. Have you attended any PSM training, to include LOG365? If you have not are you scheduled to attend?
3. Are the PSMs of major acquisition programs obtaining the training they need? Follow up question – Can you suggest any additional Life Cycle system management training or training improvements other than on-the-job training that would assist future PSMs in dealing with the challenges they encounter on their programs?
4. What system acquisition or sustainment management experiences or assignments are necessary/desirable to prepare future PSMs for the challenges they will encounter on their programs?
5. What are your expectations as PSM?
6. What do you see as your role and mission?
7. Does your Project/Product Manager (PM) know your role?
8. What expectations does your PM have of you as a PSM?
9. Please share any additional comments regarding PSM training.

Appendix I

PSM Feedback on Receiving Required Training

- I think OJT would be very helpful. Many of our employees came up through the ranks very quickly and do not understand the execution phase of the majority of the logistics tasks within the logistics career field.
- Engineering related courses such as Task Analysis and the decomposition of task analysis. Such as Failure Reporting, Analysis, and Corrective Action (FRACAS) or Failure Modes, Effects, and Criticality Analysis (FMECA).
- From my perspective they need to establish something like an upper level fellowship program that has buy-in between ASAALT and AMC. I have been fortunate to have had the opportunity to work for both AMCOM as a Career Program 17 (CP17 - Materiel Maintenance Management) type as well as an Acquisition Logistician within a Project Office. As a PSM you are working for and providing guidance to the Project Manager on the execution of his research Development Test & Evaluation (RDTE) / Army Procurement Appropriations (APA) programs. We are doing a better job communicating within the LCMC structure but we continue to have struggles with ensuring the Logistics are place to support the initial fielding and meeting programmatic milestones associated with the streamline acquisition process.
- All PSMs get the standard training that supports the “Acquisition Process”. So if a PSM is in the formal A-B-C-FRP acquisition process the big parts are covered. However, the training addresses DoD process versus what a particular PSM within a particular service may need to know to live in their respect world. I believe there is an assumption that when an Acquisition Logistics guy/gal gets to the PSM position that they are exposed/experienced in all the facets of the job. The DAU PMT401 course would be a good course for a PSM to attend. Development of service specific courses/seminars is important.
- I highly recommend that all PSMs go through the DAU Program Management training and become Level III certified. Since the PSM supports the PM, it is imperative that the PSM has a solid understanding of how Program Management works.
- Understand training is a vital requirement in order to execute newly assigned task as a PSM. If you are matrixed to a PM, which most acting PSMs are, it is frowned upon to release an individual of this status and responsibility to go and train for 2-3 weeks at a remote site. Suggest some training be done on site where the PSM resides. Also understand the emphasis for remote site training; enable the PSM candidate to devote full attention to the course but the bill payer takes a different view. Recommend Front End Trade-off analysis, and a simplified version of System Engineering be applied as a subcomponent to the PSM curriculum.
- Something along the lines of Level I, II, III PM training with a PSM focus. Current training before you are a PSM is spotty and focused on tools and how to do certain tasks (LOG200/201 Product Support Strategy Dev, LOG211 Supportability Analysis). Include this training, but add PSM Level 1, Level 2 and Level 3 unique classes. These classes have a “how all the other classes fit together” feel.

Appendix I (con't)

- Recommend continued attendance at the annual PSM Workshop. Recommend DAU to host a regional workshop focusing on the how-to aspect of being a PSM. With two major PEOs in Huntsville (Aviation/Missile and Space) there are more than enough PSMs to make the workshop worthwhile. If not currently a part of the Level I and II certification requirements, recommend the PSM construct be taught to students in lower level courses (LOG200, LOG201).
- Contract and Budget.

Appendix J

PSM Feedback on Suggested Experiences

- New Acquisition experience for a new start up system from Milestone A to completion of fielding (post Milestone C) is necessary. Business Case Analysis (BCA) working level and management experience is necessary. Sustainment Life Cycle management of an ACAT I weapon system is necessary. This should also include the System Support Buy Out process for Cooperative and Foreign Military Sales (FMS) Customers and demilitarization. Budgetary and fiscal planning of varied colors of money. Must include SS, EE, and Training (TT) PEG. Development of milestone technical documentation is necessary. Experience should be at the working level. New Acquisition experience in Modifications would be helpful. Manager of an ACAT I IPT for several milestone events is extremely helpful. This would also get them the staffing experience which can be exasperating but is necessary to understand the function and how to resolve.
- Assignments in both Acquisition Logistics and Sustainment Logistics. Preferably at the Journeyman Level.
- A must for each PSM is to work with a PM for at least six months but preferably one year at minimum.
- Although the terminology of Job Series 0346 is to assume you are a multifaceted logistician that cannot be further from the truth. From my experience a CP 13 (CP13 - Supply Management Career) type and a CP 17 type do not know each other's jobs, but as an Acquisition Logistician the expectation is to understand every discipline from all the acquisition requirements and their downstream ramifications through the lifecycle sustainment requirements.
- A logistics guy/gal that has only done the formal process has one perspective, sustainment. Having these experiences in multiple programs in various stages of the Life Cycle would be optimal. An assignment as a Log Lead in a product line would provide an opportunity to solidify their base skills and broaden their logistics skills. Additionally, experience in the PM or engineering world is important to enable their base so when the opportunity is presented to be a PSM they possess the experience to optimize their performance in support of a system.
- Working in a PM organization for at least 3-5 years dealing with multiple Integrated Product Support (IPS) elements, including sustainment areas such as technical manuals and supply support. Also, the PSM needs to have experience dealing with contracting and budgeting issues related to the logistics disciplines.
- PSMs should have experience and/or assignments working in both Acquisition Logistics and Sustainment Logistics within a project office.
- I am Level 3 Certified in Logistics and Program Management. The training required for both of those certifications is definitely a good base to start from. My opinion, a PSM

Appendix J (con't)

needs at least 5 years' experience in supporting/sustaining a major weapon system in order to fill the role of a PSM.

- Leadership training and experience is key before any other training. Also, current PSM/LCL training is adequate as initial and foundational training. PSMs are required to design, implement and manage a comprehensive and complex product support strategy for their weapon systems, including Major Automated Information Systems (MAIS) and service contracts. Current LCL and PSM curriculum does not require logistics training in the following areas: 1) performance based contracting strategies for logistics, 2) Logistics information management strategy design, implementation and management, 3) Performance based lifecycle product support (PBL) program design, implementation and management (to include application of all DoD logistics requirements). PSMs and LCLs should look not only to the DAU for training, but also evaluate academia and industry as well, to make up for these shortfalls in training.
- Everything from contract management-understanding new Acquisition laws, to budgeting and understanding related categories and colors of money.
- PSMs MUST have experience in a PM shop. That experience needs to include having provided Acquisition Logistics support to a system that has some development. Most programs have some type of new or spiral development. Assigning someone who only has “functional” logistics experience (Item/Missile Management, transportation, publications, etc...) into a PSM shop only deepens an already steep learning curve for that PSM and frustrates the PMs as they don't understand what a PSM does and CAN do to enhance their operations.
- The LOG465 class should be expanded (in the future) to include those that aspire to be a PSM. I think you need to have a balance of sustainment and acquisition experience in order to be an effective PSM
- Product support management; Design interface; Sustaining engineering; Supply support; Maintenance planning and management; Packaging, handling, storage, and transportation; Technical data; Support equipment; Training and training support; Manpower and personnel; Facilities and infrastructure; Computer resources.
- PSMs “should” possess a solid foundation in LOG product development. They should have experience in provisioning, technical publications, the Army maintenance management program, unit level supply, wholesale supply, financial implications of maintenance to supply, depot level work-loading, US Laws applicable to maintenance sharing, industrial base requirements, “How AMC Runs”, Sustainment Systems Technical Support (SSTS), and not to forget that these individuals are also “personnel managers” so they have to have all that training as well.

Appendix K

PSM Feedback on Expectations

- I expected the job to be an overarching role with research and monitoring of the various ACAT programs to ensure we stay on track for regulatory and legal requirements. I saw this as an enabling function to support AMC/HQDA in their efforts to manage the various portfolios across DA. I see my role as the Lead in support of the PM – his eyes and ears. To monitor, teach, train and support the various Product Managers and Directors to ensure we were on track and stayed on the path Headquarters Department of the Army (HQDA) wanted us on to successful total Life Cycle management of the systems within the portfolio.
- To influence all aspects of the program with specific emphasis in the System Engineering processes and the Program Management processes. Additional desire to shape design characteristics with regard to suitability and supportability.
- As PSM, I am to provide support to the PM ensuring all phases of the weapon systems Life Cycles are met and in line with regulatory policies. Ensure systems are designed in accordance with system strategies and the Life Cycle management plans. My expectation is to help develop, execute and field effective systems that can be maintained/sustained at economic operating levels and support cost.
- My role and mission is to ensure the acquisition programs are developed with the capability of meeting the Program Milestones and Lifecycle Sustainment capabilities.
- My expectations are that I execute the PSM statutory requirements. To do this, I see the PSM as basically the Log PM providing guidance and management of the logistics programs for systems managed by the PM. Another part of my role is to provide mentorship to both logistics and PM personnel concerning effective Life Cycle logistics planning and execution. As the Army has not changed its business practices to fully support the PM or the PSM in their statutory missions, I have a mission to actively work across the enterprise to facilitate getting the resources to support the support strategies for my weapon systems.
- To develop and implement a comprehensive product support strategy for the weapon system; use appropriate predictive analysis and modeling tools that can improve material availability and reliability, increase operational availability rates, and reduce operation and sustainment costs; conduct appropriate cost analyses to validate the product support strategy; ensure achievement of desired product support outcomes through development and implementation of appropriate product support arrangements; adjust performance requirements and resource allocations across product support integrators and product support providers as necessary to optimize implementation of the product support strategy; periodically review product support arrangements between the product support integrators and product support providers to ensure the arrangements are consistent with the overall product support strategy; prior to each change in the product support strategy or every five years, whichever occurs first, revalidate any business-case analysis performed in support of the product support strategy; ensure that the product support strategy maximizes small business participation at appropriate tiers.

Appendix K (con't)

- My expectations are the PSM is the single person responsible to the PM for integrated logistics support. He/she has the responsibility to ensure the proper relationships, contractual, legal, etc...are in place to support the weapon system. To sustain the weapon system and to be able to provide critical information, direct resources, assign responsibilities, and be the focal point of the weapon system to the senior leaders of the program.
- My expectations as a PSM – above all, to successfully lead. 1. Be empowered and resourced by leadership to complete my congressionally mandated logistics/product support tasks. 2. To have appropriate logistics/product support policies and procedures in place, to support me with meeting my congressionally mandated logistics tasks. 3. To have appropriate training and case study resources available, so as to train lifecycle logisticians as future PSMs. 4. To be empowered to develop and implement appropriate feedback mechanisms, so as to brief PMs and not intermediaries as required by congress.
- My Role and Mission as a PSM – 1. Subject Matter Expert on logistics/product support management accountable first to the Program manager. 2. Overall overseer of the product support management process, responsible to ensure best value support at the lowest possible price. 3. Trainer and advisor to lifecycle logisticians in their quest to become a PSM.
- Aggressively drive down cost by early design influence for new start programs, for existing legacy system drive down cost by analyzing top hitter major LRUs, and positively affecting their Mean Time Between Failure (MTBF), and Mean Time To Repair (MTTR) through cost efficient and subtle technology insertion. Act as a Product Support Integrator vice agent to ensure consistency is applied across all managed platforms and products. Further ensure platforms adhere to all existing and updated regulations and policies.
- Ensure a program is maintainable and sustainable in the field. Engagement early in the development of a system helps minimize Lifecycle cost.
- I see my job as an advocate for the warfighter. I have to balance the wishes of the acquisition community against the affordability of the sustainment community. I should have a position at the PM table and a voice in all meetings. I expect to have my position heard and at least considered. I need to foster relationships within the Project Office and throughout the Acquisition community.
- Primary advisor to the PM on Acquisition Logistics. Understand Life Cycle; Understand Logistics Elements/requirements; Be a Leader (for peers & subordinates)
- I am to be the expert advisor to the PM. I am to insure the PM “covers all the bases” and complies with the multitude of laws, regulations and policies. Now those are what I view as “expected of me”. Here are what I expect the Army owes the PSM, the responsibility and authority to perform the PSM duties. Too many times we are given “responsibility” and thus get the blame when we were never given “authority” to institute. We are also not allowed to manage the funding required to execute the PSM duties. There are many “hands in the cookie jar” as funding flows from DA to PEO to PM and DA to AMC to

Appendix K (con't)

PM. I have seen the money (OMA and AWCF) be held at organizations above the PSM to fund “other” programs.

- To be the senior equipment specialist and the senior supply manager for my assigned weapon systems. Support all war-fighters utilizing my assigned weapon systems 24/7/365
- PSM is a new role that has been “assigned” to the Logistics Directors. This role has been assigned in addition to their regular duties as the Logistics Director. There are not enough hours in the day to do both these jobs. I see my main role is to provide weapon system product support subject matter expert to the Project Manager/Product Manager for the execution of his duties as the cradle to grave weapon system manager. However, in addition to this main role there are many other duties assigned to the PSM to assure that the weapon system or missile being fielded is reliable, affordable, and supportable.

Appendix L
PSM Feedback on PMs Knowing the Role of PSMs

- No. He knows the general idea but is concerned that it conflicts with the PMs role. I have asked to brief him on the PSM function three times with no success.
- PMs generally have not accepted the PSM role.
- At the PM level, there has not been a lot of time/opportunities for him to work with a PSM since the role has been established. I believe he has an overall grasp of the PSM role.
- I do not think the PM understands the role of the PSM. I believe the PM's expectations of me are to develop and implement a comprehensive product support strategy for all new & existing program within the portfolio.
- No. Besides being a hindrance to their plans, the PM just sees the PSM as being responsible for Army Working Capital Fund (AWCF) spares and depot operations.
- I am not sure if my PM understands my role. I have not discussed roles/ responsibilities with the PM.
- No, treated as an action officer for all things acquisition.

Appendix M

PSM Additional Comments on PSM Training

- The PSM job was rolled into the Logistics Director job. No support is coming because the PMs will not pay. I input a funding request for an additional ManYear (MY) of support since the work is rolled into my job. The request was denied. I work a minimum of 50 hours a week. How am I supposed to take the training I need in addition to the extra duties?
- PSM training needs to be implemented for the PM course (PMT401), with concurrent training scenarios between PSM students and PM students.
- In order to be an effective PSM you need to be well versed in all aspects of Acquisition and Sustainment requirements for a weapon system. This can only be accomplished through formal training and on the job experiences. I believe the PSM should be level III certified in Logistics as well as Program Management.
- If the PSM is supposed to be the PM's right hand for log, the training for the PSM should be at the same level at the training required to be a DPM. (I.e. 401/402). I know there is work being done to improve the PSM course, which is goodness. However, the length of the course really constrains the time to deep dive and exchange ideas. I do not believe that the change to training rests solely in the PSM training. Having been through the PM track, the current training for PMs really only addresses the formal acquisition process and challenges in execution. There is very little on how to be a Life Cycle manager of a platform and what the implications on the Life Cycle and the challenges systems face once they reach the Operations & Sustainment (O&S) phase. Adding cases that address issues and challenges of program management for systems in the O&S would help educate the PM to better understand the sustainment impacts of PM decisions made early in the Life Cycle.
- PSMs should definitely have multiple certifications along with practical experience.
- I believe that recurring professional training opportunities (e.g. DAU 400 level type courses – one week each) every other year would be valuable. Having the chance to exchange problems and ideas with other PSMs in such a setting would be very helpful.
- I realize this paper is on PSM training; but want to add additional comments reference guidance. There needs to be clear cut guidance on exactly how to staff the Life Cycle Sustainment Plan (LCSP) and supporting documents that have been mandated by AR 700-127. Personnel within the project offices need additional training on preparing and composing this documentation.
- There are three classifications of programs that logisticians/PSMs are required to support they are 1) weapon systems, 2) major automated information systems (MAIS), and 3) service contracts. Although many of the logistics requirements overlap across each classification, they each have distinct and unique logistics requirements. There is currently insufficient training, PSM identification and selection processes and expertise available to adequately train logisticians/PSMs on how to design implement and manage MAIS and service contract programs across the Department of Defense. In addition,

Appendix M (con't)

logisticians initial training becomes dated and certain skills are lost if not exercised on a routine basis. Not enough study has been completed, but is required to develop a robust annual, recommended training plan for logisticians. A recommended strategy is to have two distinct logistics programs that would be updated by DAU:

- 1) Logistician INITIAL training program: Level I, II, and III
 - 2) Logistician RECURRING training program (included but not limited to): PBL topics; DoD Project Management; Systems Engineering; Performance Based Contracting; Systems Engineering; Manufacturing, Production and Quality; Logistics Information Management; Cost and Financial Management Topics
- More training on PSM role early in system development. PMs are taught to involve loggies early in a system but don't know what that means....many loggies and PSMs don't either.
 - It would be a great idea to have a discussion with an on-going PMT course; an opportunity for PSMs and PM to come together and discuss roles, responsibilities, expectations, etc. You could also set up a full day workshop, facilitated by DAU, where the PSM and PM from the same office come together to discuss issues. You could also include personnel from other functional areas such as System Engineering, Test, and Program Management etc.
 - The institutional Training i.e. DAU is superior, but there needs to be a structured "assignment" ladder to step logisticians through the "elements" in some comprehensive manner...all the school in the world won't help if you have never had an operational assignment doing it.
 - PSM training has a lot of catching up when appointments were made and not all PSMs met the requirements. I for one do not meet the education requirements but have many years of experience. I feel PSMs need a shadowing program whereas, similar to the Leader Investment for Tomorrow (LIFT) program, candidates serve with existing PSMs in IPTs, SSTs, OPS29, budget formulation, contracts development, etc...
 - There are many PSMs willing to impart our knowledge to the next generation of logisticians.

Appendix N

INFORMATION REQUIREMENT	PROGRAM TYPE ^{1,2,3}										LIFE-CYCLE EVENT ^{1,2,3}					SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	≤ III	MOD	MS A	CDD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/IFD Dec	OTHER					
2366a/b CERTIFICATION MEMORANDUM	•					•			•	•			10 U.S.C. 2366a (Ref. (g)) 10 U.S.C. 2366b (Ref. (g)) This instruction	MDA			
STATUTORY for MDAPs at Milestones A and B. The MDA does not have authority to delegate this requirement. A memorandum similar to that required at Milestone B is a Regulatory requirement at Milestone C if "C" is program initiation.																	
Acquisition Decision Memorandum (ADM)	•	•	•	•	•	•	•	•	•	•	•	•	This instruction	MDA			
Regulatory. Documents MDA decisions and direction.																	
ACQUISITION PROGRAM BASELINE (APB)	•	•	•	•					•	✓	✓	✓	✓	10 U.S.C. 2435 (Ref. (g)) 10 U.S.C. 2433a (Ref. (g)) DoDD 5000.01 (Ref. (a))	MDA		
STATUTORY for MDAPs at Milestones B and C and the FRP decision; a Regulatory requirement at all other Program Type/Event combinations, including the required draft at Development RFP Release. The APB is not approved by the MDA until Milestone B, however. See section 4 in this enclosure for requirements at other than the identified decision points.																	
ACQUISITION STRATEGY	•	•	•	•		•		•		✓	✓		SEC. 803, P.L. 107-314 (Ref. (i)) Para. 6a of Enc. 2 of this instruction	MDA			
STATUTORY for MDAPs at Milestone A; Regulatory for all other program types at all marked events including MDAPs after Milestone A. The Acquisition Strategy will include STATUTORY and Regulatory information. Major changes to the plan reflected in the Acquisition Strategy require MDA approval. The following STATUTORY requirements will be satisfied in the Acquisition Strategy:																	
BENEFIT ANALYSIS AND DETERMINATION: STATUTORY. Applies to bundled acquisitions only. Includes MARKET RESEARCH to determine whether consolidation of the requirements is necessary and justified. Required at Milestone C if there was no Milestone B; an update is not required at the FRP/IFD decision point. 15 U.S.C. 632 (Reference (j)) defines a bundled contract as a contract that is entered into to meet requirements that are consolidated in a bundling of contract requirements. The term "bundling of contract requirements" means consolidating two or more procurement requirements for goods or services previously provided or performed under separate smaller contracts into a solicitation of offers for a single contract that is likely to be unsuitable for award to a small-business concern. SOURCE(S): 15 U.S.C. 644(e) (Ref. (j)), 15 U.S.C. 657a (Ref. (j)) CONSIDERATION OF TECHNOLOGY ISSUES: STATUTORY. Promotes, monitors, and evaluates programs for the communication and exchange of technological data. Not required below ACAT II nor after the Development RFP Release. For urgent needs, expedited consideration of technology issues will be reviewed during the COURSE OF ACTION ANALYSIS. SOURCE(S): 10 U.S.C. 2364 (Ref. (g)) CONTRACT-TYPE DETERMINATION: STATUTORY. Satisfied when the MDA approves the Acquisition Strategy with specified contract types. Only required for MDAPs at Development RFP Release and Milestones B and C. The MDA for an MDAP may conditionally approve the contract type selected for a development program at the Development RFP Release Decision Point, and give final approval at the time of Milestone B approval. The development contract type must be consistent with the level of program risk and may be either a fixed price or cost type contract. If selecting a cost-type contract, the MDA must comply with the conditions and reporting requirements listed in Table 6 in this enclosure. The DoD MAY NOT enter into cost-type contracts for production of an MDAP unless compliant with the conditions and notifications listed in Table 6. SOURCE(S): SEC. 818, P.L. 109-364 (Ref. (k)), SEC. 811, P.L. 112-238 (Ref. (l)) COOPERATIVE OPPORTUNITIES: STATUTORY. Only due at the first program milestone review. The requirement for a Cooperative Opportunities Document will be satisfied via the International Involvement section in the Acquisition Strategy outline. For programs responding to urgent needs, proven capabilities will be assessed during the COURSE OF ACTION ANALYSIS. SOURCE(S): 10 U.S.C. 2350a (Ref. (g)), SEC. 243, P.L. 111-383 (Ref. (m))																	
(continued, next page...)																	

INFORMATION REQUIREMENT	PROGRAM TYPE ¹			LIFE-CYCLE EVENT ^{1,2,3}							SOURCE	APPROVAL AUTHORITY	
	MDAP	MAIS	ACAT II ≤ III	MDD	MS A	CD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/FD Dec			OTHER
ACQUISITION STRATEGY, continued													
GENERAL EQUIPMENT VALUATION: STATUTORY; a program description that identifies contract-deliverable military equipment, non-military equipment, and other deliverable items; includes plan(s) to ensure that all deliverable equipment requiring capitalization is serially identified and valued. Only required at Milestone C; updated as necessary for the FRP/FD Decision. The capitalization thresholds are unit costs at or above \$1 million for Air Force and Navy general fund assets, and unit costs at or above \$250 thousand for all internal use software and for other equipment assets for all other general and working capital funds. SOURCE(S): P.L. 101-576 (Ref. (n)), Statement of Federal Financial Accounting Standards 23 (Ref. (o)) INDUSTRIAL BASE CAPABILITIES CONSIDERATIONS: STATUTORY for MDAPs; Regulatory for others. Summarizes the results of the industrial base capabilities' analysis. SOURCE(S): 10 U.S.C. 2440 (Ref. (g)) INTELLECTUAL PROPERTY (IP) STRATEGY: STATUTORY for major weapon systems and subsystems; Regulatory for other program types. The IP Strategy must be updated as appropriate to support and account for evolving IP considerations associated with the award and administration of all contracts throughout the system life cycle. Becomes part of the Life-Cycle Sustainment Plan (LCSP) during Operations and Support (O&S). For programs responding to urgent needs, due at the Development Milestone. SOURCE(S): 10 U.S.C. 2320 (Ref. (g)), Para. 6a(4) of Endorsement 2 of this Instruction MARKET RESEARCH: STATUTORY. A stand-alone, Regulatory requirement at MDD. STATUTORY updates (as part of the ACQUISITION STRATEGY) required at Milestone A and the Development RFP release point; not required thereafter. Conducted to reduce the duplication of existing technologies and products, and to understand potential material sources, technology maturity, and potential sources, to assure maximum participation of small business concerns, and possible strategies to acquire them. For programs responding to urgent needs, included in the Course of Action Approach at the Development Milestone. SOURCE(S): 10 U.S.C. 2377 (Ref. (g)), 15 U.S.C. 644(e)(2) (Ref. (j)). This instruction SMALL BUSINESS INNOVATION RESEARCH (SBIR)/SMALL BUSINESS TECHNOLOGY TRANSFER (STTR) PROGRAM TECHNOLOGIES: STATUTORY. Program managers will establish goals for applying SBIR and STTR technologies in programs of record and incentivize primes to meet those goals. For contracts with a value at or above \$100 million, program managers will establish goals for the transition of Phase III technologies in subcontracting plans and require primes to report the number and dollar amount of Phase III SBIR or STTR contracts. Not required at Milestone B. SOURCE(S): 15 U.S.C. 638 (Ref. (j)) TERMINATION LIABILITY ESTIMATE: STATUTORY. Only for MDAPs. Must be documented in the ACQUISITION STRATEGY for any contract for the development or production of an MDAP for which potential termination liability could reasonably be expected to exceed \$100 million. Updates may therefore be required at other than the marked events. The estimate must include how such termination liability is likely to increase or decrease over the period of performance. The Program Manager must consider the estimate before making recommendations on decisions to enter into or terminate such contracts. SOURCE(S): SEC. 812, P.L. 112-239 (Ref. (l))													
Affordability Analysis	•	•	•	•	•	✓	✓	✓	✓	✓		Section 3 of Enc. 8 of this instruction	MDA
Regulatory. Prior to the MDD, the analysis will yield tentative cost goals and inventory goals; for Milestone A, the analysis will yield affordability goals; and for the Development RFP Release Decision Point, Milestone B, and beyond, the analysis will yield binding affordability caps.													
Table Notes:													
- A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. - All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." - Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review. - Requires a Program Manager, PEO, and CAE-approved draft. - Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. - Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.													

INFORMATION REQUIREMENT	PROGRAM TYPE ^{1,2,3}									LIFE-CYCLE EVENT ^{1,2,3}						SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	ACAT III	MDD	MS A	CDD Val	Dev RFP Ref	MS B ^a	MS C	FRP/FD Dec	OTHER					
ANALYSIS OF ALTERNATIVES (AoA)	•	•	•	•		•		✓		✓		✓	40 U.S.C. 11312 (Ref. (p)) SEC. 811, P.L. 106-398 (Ref. (q)) 10 U.S.C. 2366a (Ref. (g))	MDA (DCAPE assesses AoAs for ACAT ID/IAM only)			
STATUTORY for MDAPs, MAIS programs, and all AIS programs, including National Security Systems (NSSS), at Milestone A. STATUTORY updates required through Milestone C (or Milestone B if there is no Milestone C) for MAIS programs, and all AIS programs. Regulatory for all other specified Program Type/Event combinations. A DoD Component is responsible for conduct and approval of the AoA. The distinct assessment and approval roles of the Director of Cost Assessment and Program Evaluation (DCAPE) and the MDA associated with the AoA and the selection of the materiel solution(s) are detailed in section 2 of Enclosure 9 of this instruction.																	
AoA Study Guidance and AoA Study Plan	•	•	•	•	•								Para. 5d(1)(b) of this instruction	DCAPE or DoD Component Equivalent			
Regulatory requirements to guide the AoA. AoA Study Guidance informs the preparation of the AoA Study Plan. The AoA Study Guidance must be provided to DoD Component(s) for development of the AoA Study Plan prior to the MDD. Consistent with the AoA Study Guidance, the lead DoD Component will prepare the AoA Study Plan and present it at the MDD.																	
BANDWIDTH REQUIREMENTS REVIEW	•	•	•	•				•	✓	✓			SEC. 1047, P.L. 110-417 (Ref. (f)) This Instruction	DoD CIO			
STATUTORY for MDAPs and major weapon systems; Regulatory for all other programs. Bandwidth requirements data will be documented in the Information Support Plan (ISP). If the ISP is waived for a program, conformance with bandwidth review will be based on data provided in the Capability Development Document (CDD), consistent with Net-Ready Key Performance Parameter (NR-KPP) guidance in the Manual for the Operation of the Joint Capabilities Integration and Development System (JCIDS) (Reference (r)) and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6212.01F (Reference (s)).																	
Capability Development Document (CDD)	•	•	•	•		•	✓	✓		✓		✓	CJCSI 3170.01 (Ref.(d)) JCIDS Manual (Ref. (r))	JROC, JCB, or Component Validation			
Regulatory. A draft CDD is required at Milestone A, a validated CDD is required at the Development RFP Release Decision Point and informs Milestone B. If there are no changes, a revalidated CDD may be submitted for the Capability Production Document (CPD) required at Milestone C. An equivalent DoD Component-validated requirements document will satisfy this requirement for certain information systems. For approval authorities, JROC is Joint Requirements Oversight Council; JCB is Joint Capabilities Board.																	
Capability Production Document (CPD)	•	•	•	•						•			CJCSI 3170.01 (Ref.(d)) JCIDS Manual (Ref. (r))	JROC, JCB, or Component Validation			
Regulatory. If there are no changes, a revalidated CDD may satisfy this information requirement. An equivalent DoD Component-validated requirements document will satisfy this requirement for certain information systems; the equivalent documents are finalized after Milestone B, to support deployment.																	
Table Notes:																	
1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information.								4. Requires a Program Manager-, PEO-, and CAE-approved draft.									
2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types."								5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided.									
3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review.								6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.									

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ^a	MS C	FRP/ID Dec	OTHER		
Capstone Threat Assessment	•	•	•	•								•	DIA Directive 5000.200 (Ref. (t)) DIA Instruction 5000.002 (Ref. (u))	Validated by Defense Intelligence Agency (DIA)
Regulatory. Capstone Threat Assessments are maintained by the responsible production center and are required to be updated every 2 years, independent of acquisition decision events. Capstone Threat Assessments serve as the analytical foundation for System Threat Assessment Reports (STARs) and maintain projections of technology and adversary capability trends over the next 20 years.														
CLINGER-COHEN ACT (CCA) COMPLIANCE	•	•	•	•		•			•	•	•		SUBTITLE III, TITLE 40 (Ref. (p)) SEC. 811, P.L. 106-398 (Ref. (q))	MDA and Component CIO or designee
STATUTORY. For all programs that acquire information technology (IT); Regulatory for other programs. See section 3 in Enclosure 11 for amplifying guidance. A summary of required actions is in Table 9 in this enclosure. The Program Manager will report CCA compliance to the MDA and the Component CIO or designee. For IT programs employing an incremental development model (i.e., Model 3), the Program Manager will report CCA compliance at each Limited Deployment Decision Point.														
Concept of Operations/Operational Mode Summary/Mission Profile (CONOPS/OMS/MP)	•	•	•	•		•		✓		✓			JCIDS Manual (Ref. (r))	DoD Component
Regulatory. The CONOPS/OMS/MP is a Component approved acquisition document that is derived from and consistent with the validated/approved capability requirements document. The CONOPS/OMS/MP describes the operational tasks, events, durations, frequency and environment in which the materiel solution is expected to perform each mission and each phase of the mission. The CONOPS/OMS/MP will be provided to the MDA at the specified decision events and normally provided to industry as part of the RFP.														
CORE LOGISTICS DETERMINATION / CORE LOGISTICS AND SUSTAINING WORKLOADS ESTIMATE	•		•	•		•		•	✓	•			10 U.S.C. 2464 (Ref. (g)) 10 U.S.C. 2366a & 2366b (Ref. (g)) SEC. 801, P.L. 112-81 (Ref. (v)) Para. 3d(2) of Enc. 6 of this instruction	MDA/DoD Component
STATUTORY. Only the CORE LOGISTICS DETERMINATION is required at Milestone A. Required at Milestone C if there was no Milestone B. Documented in the LCSP. Not required for AIS programs.														
Cost Analysis Requirements Description (CARD)	•	•				•		✓	•	✓	✓	✓	Sec. 3 of Enc. 10 of this instruction DoD 5000.4-M (Ref. (w))	DoD Component
Regulatory. Due any time an INDEPENDENT COST ESTIMATE (ICE) or an ECONOMIC ANALYSIS is required. Procedures are specified in section 3 of Enclosure 10 of this instruction.														
Table Notes: 1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. 2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." 3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review. 4. Requires a Program Manager-, PEO-, and CAE-approved draft. 5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. 6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.														

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	ACAT ≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/FD Dec	OTHER		
CYBERSECURITY STRATEGY	•	•	•	•		•		✓	✓	✓	✓		SEC. 811, P.L. 106-398 (Ref. (q)) 40 U.S.C. 11312 (Ref. (p)) DoDI 8500.01E (Ref. (x))	DoD CIO; Component CIO
STATUTORY for mission critical or mission essential IT systems. Regulatory for all other programs containing IT, including NSS. See section 6 of Enclosure 11. The CYBERSECURITY STRATEGY is an appendix to the Program Protection Plan (PPP). A draft ⁵ update is due for the Development RFP Release and is approved at Milestone B. May include the approved DoD Risk Management Framework Security Plan for urgent needs. The DoD CIO is approval authority for ACAT ID and all ACAT IA programs; the Component CIO is approval authority for all other ACATs.														
Development RFP Release Cost Assessment	•	•						•					Para. 2a(5) of Enc. 10 of this instruction	CAPE
Regulatory. Requirements and procedures for this assessment are specified in paragraph 2a(5) in Enclosure 10 of this instruction.														
DoD Component Cost Estimate	•	•				•			•	•	•	•	Para. 5d(3)(b)2b of this instruction Sec. 2 of Enc. 10 of this instruction	DoD Component
Regulatory. See the direction in section 2 of Enclosure 10 of this instruction. The DoD Component will determine the cost estimating requirements for ACAT II and III programs.														
DoD Component Cost Position	•	•				•			•	•	•	•	Para. 2e of Enc. 10 of this instruction	DoD Component
Regulatory. Mandatory for MDAPs and MAIS programs; documented DoD Component Cost Position must be signed by the appropriate DoD Component Deputy Assistant Secretary for Cost and Economics.														
DoD Component Live Fire Test and Evaluation (LFT&E) Report	•		•	•								•	This instruction	CAE
Regulatory. Programs on the Director, Operational Test and Evaluation (DOT&E) Oversight List for LFT&E oversight only; due upon completion of LFT&E.														
Table Notes:							4. Requires a Program Manager-, PEO-, and CAE-approved draft. 5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. 6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.							
1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. 2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." 3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review.														

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/FD Dec	OTHER		
DOT&E REPORT ON INITIAL OPERATIONAL TEST AND EVALUATION (IOT&E)	•	•	•	•							•		10 U.S.C. 2399 (Ref. (g)) 10 U.S.C. 139 (Ref. (g))	DOT&E
STATUTORY, required for DOT&E Oversight List programs only. The DOT&E publishes an online list of programs under operational test and evaluation (OT&E) and LFT&E oversight at https://extranet.dote.osd.mil/oversight/ (requires login with a Common Access Card). A final decision to proceed beyond Low-Rate Initial Production (LRIP) or beyond Limited Deployment may not be made until the DOT&E has submitted the IOT&E Report to the Secretary of Defense, and the congressional defense committees have received that report. If DoD decides to proceed to operational use of the program or to make procurement funds available for the program before the MDA's FRP/FD decision, the DOT&E's report will be submitted as soon as practicable after the DoD decision to proceed.														
ECONOMIC ANALYSIS		•				•		•	•		•	•	SEC. 811, P.L. 106-398 (Ref. (q)) DoDI 7041.3 (Ref. (y))	DoD Component
STATUTORY for MAIS. May be combined with the AoA at Milestone A. Also required at any review that is the equivalent of Milestone B or the FD Decision.														
Exit Criteria	•	•	•	•		•		•	✓	•			This instruction	MDA
Regulatory. Exit criteria are specific events and accomplishments that must be achieved before a program can proceed to the designated acquisition phase covered by the criteria. Documented in the ADM.														
FREQUENCY ALLOCATION APPLICATION (DD FORM 1494)	•	•	•	•		•			•	•			SEC. 104, P.L. 102-538 (Ref. (z)) 47 U.S.C. 305, 901-904 (Ref. (aa))	National Telecommunications and Information Administration
STATUTORY for all systems/equipment that use the electromagnetic spectrum while operating in the United States and its possessions. The DD Form 1494, Application for Equipment Frequency Allocation, is available from http://www.dtic.mil/whs/directives/informt/forms/dd/ddforms1000-1499.htm . The STATUTORY requirement for milestone decisions is met when DD Form 1494 is submitted by the Program Manager to the appropriate reviewing and approving agencies. Generally not applicable to Defense Business System (DBS) programs.														
Full Funding Certification Memorandum	•	•				•			•	•	•		Para. 2f of Enc. 10 of this instruction	MDA/CAPE
Regulatory. See paragraph 2f of Enclosure 10 to this instruction. Must be signed by the CAE and the Component Chief Financial Officer.														
Table Notes: 1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. 2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." 3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review. 4. Requires a Program Manager-, PEO-, and CAE-approved draft. 5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. 6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.														

[illegible]

INFORMATION REQUIREMENT	PROGRAM TYPE ¹					LIFE-CYCLE EVENT ^{1,2,3}							SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ¹	MS C	FRP/FD Dec	OTHER		
Item Unique Identification Implementation Plan	•	•	•	•		•		✓	✓	✓			DoDI 8320.04 (Ref. (ae))	CAE or as delegated
Regulatory: Design considerations related to unique identification are included in the Systems Engineering Plan (SEP).														
Life-Cycle Mission Data Plan	•	•	•	•		•		✓	✓	✓	✓		DoDD 5250.01 (Ref. (af))	DoD Component
Regulatory: only required if the system is dependent on Intelligence Mission Data. A draft* update is due for Development RFP Release; approved at Milestone B.														
Life-Cycle Sustainment Plan (LCSP)	•	•	•	•		•		✓	✓	✓	✓	✓	Sec. 3 in Enc. 6 of this instruction	MDA or designee
Regulatory: A draft* update is due for Development RFP Release; approved at Milestone B. The LCSP is reviewed by the CAE at least every 5 years after a system's IOC. See Enclosure 6 of this instruction for details about the LCSP.														
LFT&E REPORT	•		•	•								•	10 U.S.C. 2366 (Ref. (g))	DOT&E
STATUTORY: Programs on the DOT&E Oversight List for LFT&E oversight only. Report is due as soon as practicable after testing is concluded. See related SURVIVABILITY AND LIVE FIRE TESTING STATUS REPORT in Table 6 in this enclosure.														
LOW-RATE INITIAL PRODUCTION (LRIP) QUANTITY	•		•	•				•	✓				10 U.S.C. 2400 (Ref. (g)) Para. 5d(6)(e) of this instruction	MDA
STATUTORY for MDAPs and ACAT II programs; Regulatory for other programs. A preliminary quantity is determined at the Development RFP Release Decision Point; the final LRIP quantity is determined at Milestone B. The LRIP quantity will be documented in the ADM. For programs on the DOT&E Oversight List, LRIP quantities must equal or exceed the numbers required for testing as identified in the approved Test and Evaluation Master Plan (TEMP).														
MANPOWER ESTIMATE	•							•	✓	✓	✓		10 U.S.C. 2434 (Ref. (g))	DoD Component with OUSD(P&R) Review
STATUTORY: A draft* is due for Development RFP Release; approved at Milestone B. The office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)) will review the MANPOWER ESTIMATE.														
Operational Test Agency (OTA) Report of OT&E Results	•	•	•	•								•	This instruction	OTA
Regulatory: Required earlier than the FRP/FD decision if early operational assessments or operational assessments are conducted.														
Table Notes:														
1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information.								4. Requires a Program Manager-, PEO-, and CAE-approved draft.						
2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types."								5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided.						
3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review.								6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.						

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	ACAT III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/FD Dec	OTHER		
OPERATIONAL TEST PLAN (OTP)	•	•	•	•								•	10 U.S.C. 2399 (Ref. (g)) Para. 3e of Enc. 5 of this instruction	DOT&E or Component equivalent
STATUTORY/Regulatory. An OTP, approved before the start of OT&E, is mandatory for all programs. Approval by DOT&E is a STATUTORY requirement for programs on the DOT&E Oversight list. DoD Component-equivalent approval is a Regulatory requirement for all other programs.														
PESHE AND NEPA/E.O. 12114 COMPLIANCE SCHEDULE	•	•	•	•					•	✓	✓		42 U.S.C. 4321-4347 (Ref. (ag)) E.O. 12114 (Ref. (ah))	CAE or as delegated
STATUTORY. The Programmatic Environment, Safety, and Occupational Health Evaluation (PESHE) and National Environmental Policy Act (NEPA) / Executive Order (E.O.) 12114 Compliance Schedule is approved by the CAE. Related design considerations must be included in the SEP; related operations or sustainment considerations after Milestone C will be included in the LCSP. Not required for software programs with no hardware component.														
POST IMPLEMENTATION REVIEW (PIR)	•	•	•	•								•	40 U.S.C. 11313 (Ref. (p))	Functional sponsor
STATUTORY. Responds to statute that requires Federal Agencies to compare actual program results with established performance objectives. The PIR is a process that aggregates information needed to successfully evaluate the degree to which a capability has been achieved. The preparation of the TEMP and the MDA's decision to proceed with FRP satisfy the requirement for weapons systems. DoD Components will plan, conduct, and document the required review for IT systems and NSS post IOC (see section 4 in Enclosure 11 of this instruction). Approval by the Functional Sponsor will require coordination with the Component CIO.														
PRESERVATION AND STORAGE OF UNIQUE TOOLING PLAN	•									•	✓		SEC. 815, P.L. 110-417 (Ref. (f))	MDA
STATUTORY. Part of the LCSP. The MDA must approve the plan prior to Milestone C approval; updated only as necessary, thereafter. The plan must identify any contract clauses, facilities, and funding required to preserve and to store the unique tooling associated with the production of the MDAP hardware through the end of the service life of the end item. See paragraph 3d(3) in Enclosure 6 for details.														
Problem Statement		•	•	•	•			•		✓	✓		Para. 4 in Enc. 1 of this instruction	IRB Chair
Regulatory; for DBS programs only. A stand-alone DBS requirements document to support the MDD, and later key decision events and milestones. The Problem Statement documents DBS requirements and is approved by the Investment Review Board (IRB) chair. It documents the business and supporting analysis, and evolves over time as those needs are refined. The Joint Staff (JS) (J-8) will review the initial Problem Statement to determine whether there is JS interest.														
Table Notes: 1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. 2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." 3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review. 4. Requires a Program Manager, PEO-, and CAE-approved draft. 5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. 6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.														

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}							SOURCE	APPROVAL AUTHORITY	
	MDAP	MAIS	ACAT II	≤ III	MOD	MS A	CDD Val	Dev RFP Rel	MS B ⁴	MS C	FRP/FD Dec			OTHER
PROGRAM CERTIFICATION TO THE DEFENSE BUSINESS SYSTEMS MANAGEMENT COMMITTEE (DBSMC)		•		•		•			•			•	10 U.S.C. 2222 (Ref. (g))	DBSMC Chair
STATUTORY; for DBS programs only. Due prior to obligation of funds for any DBS that will have a total cost in excess of \$1 million over the period of the current Future Years Defense Program.														
Program Protection Plan (PPP)	•	•	•	•		•		✓	✓	✓	✓		DoDI 5200.39 (Ref. (ai)) DoDI 5200.44 (Ref. (aj)) Para. 13a in Enc. 3, this instruction	MDA
Regulatory. A draft ⁴ update is due for the Development RFP Release decision and is approved at Milestone B. The PPP includes appropriate appendixes or links to required information. See section 13 in Enclosure 3 of this instruction.														
REPLACED SYSTEM SUSTAINMENT PLAN	•					•			•				10 U.S.C. 2437 (Ref. (g))	DoD Component
STATUTORY. May be submitted as early as Milestone A, but no later than Milestone B. Required when an MDAP replaces an existing system and the capability of the old system remains necessary and relevant during fielding of and transition to the new system. The plan must provide for the appropriate level of budgeting for sustainment of the old system, the schedule for developing and fielding the new system, and an analysis of the ability of the existing system to maintain mission capability against relevant threats.														
Request for Proposal (RFP)	•	•	•	•		•		•		•	•		Federal Acquisition Regulation Subpart 15.203 (Ref. (ak))	MDA is release authority
Regulatory. RFPs are issued as necessary; they include specifications and statement of work. See also Defense Federal Acquisition Regulation Supplement subpart 201.170 (Reference (al)) for the requirement for peer reviews.														
Should Cost Target	•	•	•	•		•		•	•	•	•		Para. 5d(3)(b)1 of this instruction	MDA
Regulatory. "Should Cost" is a regulatory tool designed to proactively target cost reduction and drive productivity improvement into programs. Paragraph 6e in Enclosure 2 of this instruction provides additional detail on "Should Cost."														
Spectrum Supportability Risk Assessment	•	•	•	•		•			•	•		•	DoDI 4650.01 (Ref. (am))	Component CIO or designee
Regulatory. Applicable to all systems/equipment that use the electromagnetic spectrum in the United States and in other host nations. Due at milestone reviews and prior to requesting authorization to operate (for other than testing) in the United States or in host nations.														
Table Notes: 1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information. 2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types." 3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review.						4. Requires a Program Manager-, PEO-, and CAE-approved draft. 5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided. 6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.								

Appendix N (con't)

[illegible]

INFORMATION REQUIREMENT	PROGRAM TYPE ¹				LIFE-CYCLE EVENT ^{1,2,3}								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS B ^a	MS C	FRP/FD Dec	OTHER		
Test and Evaluation Master Plan (TEMP)	•	•	•	•		•		✓	✓	✓	✓		Enclosures 4 and 5 of this instruction	See Notes for this row
Regulatory. A draft update is due for the Development RFP Release Decision Point approved at Milestone B. DOT&E will approve the TEMP for DOT&E Oversight programs (10 U.S.C. 2399 (Reference (g))), Deputy Assistant Secretary of Defense (Developmental Test and Evaluation) (DASD (DT&E)) will also approve the TEMP for MDAP, MAIS and Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (A/T&L)) designated special interest programs (10 U.S.C. 139b, Reference (g)), the DoD Component equivalent will approve the plan for other programs. TEMP outline guidance for OT&E is located at http://www.dote.osd.mil/temp-guidebook/index.html .														
Waveform Assessment Application	•	•	•	•					•	✓			DoDI 4630.09 (Ref. (ap))	DoD CIO
Regulatory. Application to the DoD CIO for approval of the development or modification of waveforms. Required at Milestone C if a waveform is added or modified after Milestone B.														
Table Notes:														
1. A dot (•) in a cell indicates the specific applicability of the requirement to program type and life-cycle event, and represents the initial submission requirement. Moving right across a row, a checkmark (✓) indicates the requirement for updated information.								4. Requires a Program Manager-, PEO-, and CAE-approved draft.						
2. All of the "Life-Cycle Events" will not necessarily apply to all "Program Types."								5. Information requirements that have been finalized and approved by the responsible authority in support of the Development RFP Release Decision Point do not have to be re-submitted prior to Milestone B unless changes have occurred. In that case, updated documents will be provided.						
3. Unless otherwise specified when discussed in this instruction, documentation for identified events will be submitted no later than 45 calendar days before the planned review.								6. Incrementally Deployed Software Intensive Programs (Model #3) do not have a Milestone C and consequently are not required to satisfy the Table 2 requirements associated with that milestone.						

Appendix O



ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

FEB 1 2016

MEMORANDUM FOR SERVICE COMPONENT ACQUISITION EXECUTIVES
DIRECTOR, JOINT CHIEFS OF STAFF, J4
DIRECTOR, DEFENSE THREAT REDUCTION AGENCY
DIRECTOR, DEFENSE INFORMATION SYSTEMS AGENCY
DIRECTOR, DEFENSE LOGISTICS AGENCY
DIRECTOR, DEFENSE SECURITY SERVICES
DIRECTOR, MISSILE DEFENSE AGENCY
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY
DIRECTORS, ACQUISITION CAREER MANAGEMENT (DACM)
DIRECTOR, DEFENSE HEALTH AGENCY
DIRECTOR, HUMAN CAPITAL INITIATIVES (HCI)
PRESIDENT, DEFENSE ACQUISITION UNIVERSITY (DAU)

SUBJECT: DoD Product Support Manager Mandatory Training Requirement

References: (a) ODASD(MR) Memorandum, "DoD Product Support Manager (PSM) Mandatory Training Requirement," dated February 27, 2014
(b) 10 USC §2337 Life-Cycle Management and Product Support
(c) Principal Deputy ASD(L&MR) Memorandum, "Joint Life Cycle Logistics Product Support Manager Key Leadership Position Qualification Board – Call for Candidates," dated April 27, 2015

This policy memorandum supersedes Reference (a), and describes: (1) requirements for course attendance, and (2) actions needed to facilitate attendance.

Reference (b) requires that a Product Support Manager (PSM) be assigned for each major DoD weapon system. In support of this statutory requirement, the Life Cycle Logistics Functional Leader tasked the Defense Acquisition University (DAU) to develop an executive-level classroom course specifically for PSMs. In 2014, DAU deployed LOG 365 "Executive Product Support Manager's Course" to fulfill this assignment-specific training requirement. LOG 365 was redesignated as LOG 465 effective October 1, 2015. The course is a two-week resident course offered at the DAU campus located at Fort Belvoir, Virginia. The course description can be found at: http://icatalog.dau.mil/onlinecatalog/courses.aspx?crs_id=2068.

Attendance in the DAU LOG 465 course is mandatory for assigned DoD PSMs for all Acquisition Category (ACAT) I Major Defense Acquisition Programs (MDAP), ACAT IA Major Automated Information System (MAIS) programs, ACAT II programs, and former ACAT I/II programs that are post-initial operating capability (post-IOC) or no longer have a program manager reporting to a Component Acquisition Executive (CAE). Currently assigned PSMs are expected to successfully complete the course by August 2017. Individuals subsequently assigned to PSM positions are expected to complete the course within 24 months of assignment. LOG 465 attendance is also mandatory for defense acquisition workforce members who have been pre-qualified by the Life Cycle Logistics (LCL) PSM Key Leadership Position (KLP) Joint

Appendix O (con't)

Qualification Board (Reference (c)). While not mandatory, ACAT III program PSMs may attend if endorsed by their senior executive.

To facilitate PSMs attending LOG 465, Component and Agency career field functional leads and Directors of Acquisition Career Management (DACMs) will proactively work with DAU to:

- a. Confirm LOG 465 training requests meet prerequisites (including that applicants are currently assigned as a PSM and/or pre-qualified by the LCL PSM KLP Joint Qualification Board) prior to approving attendance.
- b. Approve LOG 465 training requests as a priority one (P1) training priority to meet the unique position training requirement (same as required for position certification).
- c. Give highest priority to LOG 465 training requests for PSMs that are currently assigned to ACAT I and ACAT IA program KLPs; next priority to PSMs assigned to ACAT II programs; next priority to individuals qualified by the LCL PSM KLP Joint Qualification board; lowest priority to PSMs assigned to ACAT III programs.
- d. Register participants no later than 45 days prior to scheduled class start dates.

DAU will take the following actions:

- a. Factor LOG 465 training requirements into its annual travel budget planning process to assist the Components in meeting the P1 training requirement throughput demand.
- b. Reserve 1-2 seats in each offering for Program Executive Officer staff lead logisticians, Component and Office of the Secretary of Defense Headquarters staff logistics personnel with direct oversight of PSM-related policy and/or defense industry personnel equivalent in grade, position, or level of responsibility to their DoD PSM counterparts.

My point of contact is Ms. Molly Mertz (mary.m.mertz.civ@mail.mil, (703) 614-6137).



Paul D. Peters
Principal Deputy

cc:
Director, Logistics & Sustainment Center, DAU

Appendix O (con't)

LOGISTICS AND
MATERIEL READINESSOFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

February 27, 2014

MEMORANDUM FOR COMPONENT ACQUISITION EXECUTIVES
DIRECTORS, ACQUISITION CAREER MANAGEMENT (DACMS)
DIRECTOR, HUMAN CAPITAL INITIATIVES (HCI)
PRESIDENT, DEFENSE ACQUISITION UNIVERSITY (DAU)

SUBJECT: DoD Product Support Manager (PSM) Mandatory Training Requirement

REFERENCE: 10 USC §2337 Life-Cycle Management and Product Support

Title 10 USC §2337 requires that a Product Support Manager (PSM) be assigned for each major DoD weapon system. In support of this statutory requirement, the Deputy Assistant Secretary of Defense for Materiel Readiness, in the role of the Life Cycle Logistics Functional Leader, tasked the Defense Acquisition University (DAU) to develop an executive-level classroom course that doesn't currently exist to specifically train PSMs. DAU is finalizing development of a new LOG 365 "Executive Product Support Manager Course" to fulfill this assignment-specific training requirement. This policy memo describes: 1) mandatory requirements for current PSMs to attend the course, 2) actions needed to support attendance, and 3) the schedule of FY14 and FY15 classes.

Attendance in the DAU LOG 365 classroom course is mandatory for assigned DoD PSMs for all Acquisition Category (ACAT) I, ACAT II programs, and former ACAT I/II programs that are post-initial operating capability (post-IOC) or no longer have a program manager reporting to a Component Acquisition Executive. Currently assigned PSMs are expected to attend the 2-week course at the DAU campus located at Fort Belvoir, Virginia within 36 months of the initial course offering in August 2014. Those subsequently assigned to PSM positions will be expected to complete the course within 24 months of assignment. While not mandatory, LOG 365 attendance is also highly recommended for PSMs assigned to ACAT III programs.

The FY14 LOG 365 schedule includes a student pilot (April 21 to May 2, 2014) and initial offering (August 11-22, 2014). Both of these FY14 and subsequent FY15 quarterly offerings will be conducted at the DAU campus at Fort Belvoir, Virginia. Below is a description for LOG 365.

Designed as an executive-level course for DoD Product Support Managers, LOG 365 focuses on enhancing a PSM's success fielding and sustaining DoD systems. The central unifying themes are PSM roles and responsibilities plus proven practices for developing, validating and implementing a Product Support Strategy. During the course, each PSM will create a custom Stakeholder Tactical Engagement Plan (STEP) and a Professional Development Plan (PDP) to enhance their effectiveness. PSMs and speakers will share their lessons learned and leadership tips. LOG 365 prerequisites include Level III

Appendix O (con't)

certification in Life-Cycle Logistics and current assignment to a PSM position. Because pre-course work is required, walk-in students will not be authorized.

To facilitate PSMs attending LOG 365, meet anticipated demand for this new course, and provide for centralized travel funding, Component and Agency Directors of Acquisition Career Management (DACM) and DAU will proactively work together to:

- a. Confirm LOG 365 training requests meet prerequisites (including applicants being currently assigned as a PSM, except as stated below) prior to approving attendance.
- b. Approve LOG 365 training requests as a P1 training priority to meet the unique position training requirement (same as required for position certification).
NOTE: DAU will factor in the new LOG 365 training requirements into its annual travel budget planning process to assist the Services in meeting the P1 training requirement throughput demand.
- c. Prioritize LOG 365 training requests for PSMs that are currently assigned to ACAT I program Key Leadership Positions (KLP).
- d. Reserve 1-2 seats in each offering for Program Executive Officer staff lead logisticians, component headquarters staff logistics personnel with direct oversight of PSM-related policy and/or defense industry personnel equivalent in grade, position, or level of responsibility to their DoD PSM counterparts.

My point of contact for this initiative is Mr. Jeffrey Frankston, who can be reached at jeffrey.w.frankston.civ@mail.mil or (703) 697-5981.



Lisa Smith
Acting LCL Functional Leader

cc:
Director, Logistics & Sustainment Center, DAU

Appendix O (con't)

Page 1 of 2

10 USC 2337: Life-cycle management and product support
Text contains those laws in effect on December 14, 2015

From Title 10-ARMED FORCES

Subtitle A-General Military Law

PART IV-SERVICE, SUPPLY, AND PROCUREMENT

CHAPTER 137-PROCUREMENT GENERALLY

Jump To:

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[Amendments](#)

§2337. Life-cycle management and product support

(a) Guidance on Life-Cycle Management.-The Secretary of Defense shall issue and maintain comprehensive guidance on life-cycle management and the development and implementation of product support strategies for major weapon systems. The guidance issued pursuant to this subsection shall-

- (1) maximize competition and make the best possible use of available Department of Defense and industry resources at the system, subsystem, and component levels; and
- (2) maximize value to the Department of Defense by providing the best possible product support outcomes at the lowest operations and support cost.

(b) Product Support Managers.-

(1) Requirement.-The Secretary of Defense shall require that each major weapon system be supported by a product support manager in accordance with this subsection.

(2) Responsibilities.-A product support manager for a major weapon system shall-

(A) develop and implement a comprehensive product support strategy for the weapon system;

(B) use appropriate predictive analysis and modeling tools that can improve material availability and reliability, increase operational availability rates, and reduce operation and sustainment costs;

(C) conduct appropriate cost analyses to validate the product support strategy, including cost-benefit analyses as outlined in Office of Management and Budget Circular A-94;

(D) ensure achievement of desired product support outcomes through development and implementation of appropriate product support arrangements;

(E) adjust performance requirements and resource allocations across product support integrators and product support providers as necessary to optimize implementation of the product support strategy;

(F) periodically review product support arrangements between the product support integrators and product support providers to ensure the arrangements are consistent with the overall product support strategy;

(G) prior to each change in the product support strategy or every five years, whichever occurs first, revalidate any business-case analysis performed in support of the product support strategy;

(H) ensure that the product support strategy maximizes small business participation at the appropriate tiers; and

(I) ensure that product support arrangements for the weapon system describe how such arrangements will ensure efficient procurement, management, and allocation of Government-owned parts inventories in order to prevent unnecessary procurements of such parts.

(c) Definitions.-In this section:

(1) Product support.-The term "product support" means the package of support functions required to field and maintain the readiness and operational capability of major weapon systems, subsystems, and components, including all functions related to weapon system readiness.

(2) Product support arrangement.-The term "product support arrangement" means a contract, task order, or any type of other contractual arrangement, or any type of agreement or non-contractual arrangement within the Federal Government, for the performance of sustainment or logistics support required for major weapon systems, subsystems, or components. The term includes arrangements for any of the following:

(A) Performance-based logistics.

(B) Sustainment support.

(C) Contractor logistics support.

(D) Life-cycle product support.

(E) Weapon systems product support.

Appendix O (con't)

Page 2 of 2

(3) Product support integrator.-The term "product support integrator" means an entity within the Federal Government or outside the Federal Government charged with integrating all sources of product support, both private and public, defined within the scope of a product support arrangement.

(4) Product support provider.-The term "product support provider" means an entity that provides product support functions. The term includes an entity within the Department of Defense, an entity within the private sector, or a partnership between such entities.

(5) Major weapon system.-The term "major weapon system" means a major system within the meaning of section 2302d(a) of this title.

(Added Pub. L. 112-239, div. A, title VIII, §823(a)(1), Jan. 2, 2013, 126 Stat. 1830 ; amended Pub. L. 113-66, div. A, title VIII, §823, Dec. 26, 2013, 127 Stat. 809 .)

AMENDMENTS

2013-Subsec. (b)(2)(I). Pub. L. 113-66 added subpar. (I).

SIMILAR PROVISIONS

Provisions similar to this section were contained in section 805 of Pub. L. 111-84, which was set out as a note under section 2302 of this title prior to repeal by Pub. L. 112-239, div. A, title VIII, §823(b), Jan. 2, 2013, 126 Stat. 1832 .

Appendix O (con't)



ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

APR 27 2015

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY
(ACQUISITION POLICY AND LOGISTICS)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE FOR
LOGISTICS AND PRODUCT SUPPORT
DEPUTY ASSISTANT SECRETARY OF THE NAVY
(EXPEDITIONARY PROGRAMS AND LOGISTICS
MANAGEMENT)
PROGRAM EXECUTIVE FOR PROGRAMS AND INTEGRATION,
MISSILE DEFENSE AGENCY

SUBJECT: Joint Life Cycle Logistics Product Support Manager Key Leadership Position
Qualification Board – Call for Candidates

REFERENCE: Under Secretary of Defense for Acquisition, Technology, and Logistics
Memorandum, "Key Leadership Positions and Qualification Criteria," dated
November 8, 2013

I am pleased to initiate the Joint Life Cycle Logistics (LCL) Product Support Manager (PSM) Key Leadership Position (KLP) Qualification Board, as directed in the Reference (Attachment 1). PSM positions for Major Defense Acquisition Programs (MDAP) and Major Automated Information System (MAIS) programs are designated as KLPs. The Qualification Board will consider Defense Acquisition Workforce applicants to identify a pool of personnel who are fully qualified to fill the PSM KLPs based on their training, education, and experience. All the qualification requirements are described in the attachments to this memorandum.

Each applicant must complete an application (Attachment 2) in accordance with the instructions (Attachment 3). Application packages must be submitted electronically by the applicants or their Component to the Director, Human Capital Initiatives (HCI) at KLPQualification@dau.mil no later than July 30, 2015. HCI will then forward the applications to the Joint LCL KLP Qualification Board for consideration. Incumbent PSMs are not required to apply but must meet KLP requirements by June 30, 2015, as described in the Reference.

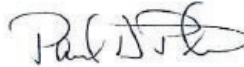
The initial Joint LCL KLP Qualification Board will be held on September 15-16, 2015. Subsequent Boards will meet at least annually. In addition to the requirements contained in the Reference, the application addresses LCL-specific requirements (Attachment 4), which will also be used as criteria to determine qualification. Once qualified, qualification status continues in effect as long as the individual remains current with Defense Acquisition Workforce Improvement Act continuous learning points in the LCL career field.

Upon conclusion of the Board's review, the LCL KLP Joint Qualification Board will notify candidates and their appropriate Component personnel of the Board's determination and

Appendix O (con't)

will also report the results to the Under Secretary of Defense for Acquisition, Technology, and Logistics.

I am eager to convene the first Joint LCL KLP Qualification Board, which will enhance the professionalism of our career field by identifying well-qualified individuals to serve in these vital, demanding, and prestigious KLPs. Questions related to application submission should be directed to HCI, 703-805-3761, KLPQualification@dau.mil. My point of contact for the Qualification Board is Ms. Lisha Adams, 703-614-6327, lisha.h.adams.civ@mail.mil.



Paul D. Peters
Principal Deputy

Attachments:
As stated

cc:
Air Force Director, Acquisition Career Management
Army Director, Acquisition Career Management
Department of the Navy Director, Acquisition Career Management
4th Estate Director, Acquisition Career Management
Director, Human Capital Initiatives