Your GPS for DoD Product Support

The *DoD Integrated Product Support Implementation Roadmap*

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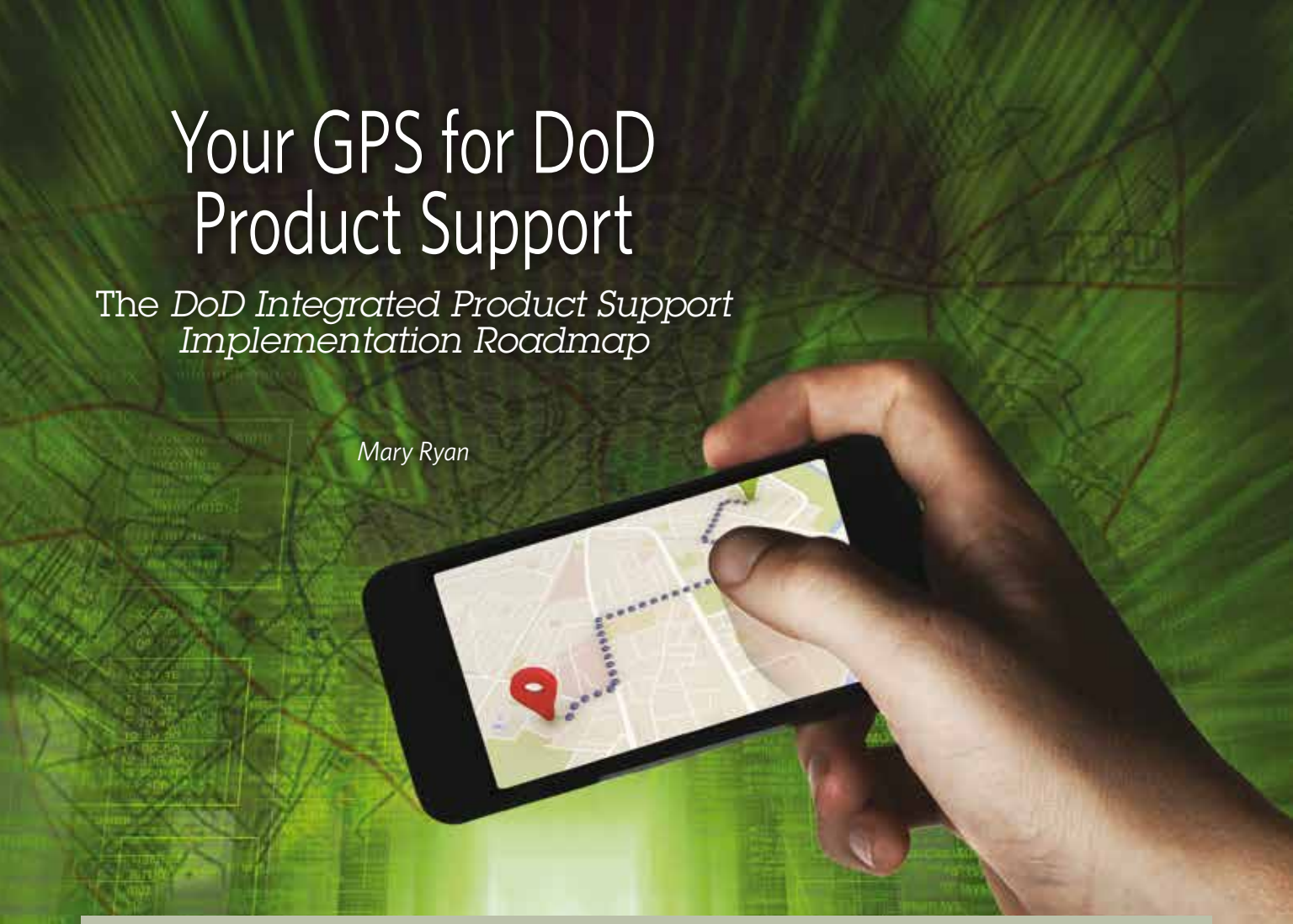

What if someone asked you to develop a major tool to help demystify Department of Defense (DoD) acquisition for product support? Suppose they also wanted it from a multiple military Service perspective that linked to integrated information on product support. Then let's say you also had to make it (whatever "it" might be) available online 24/7 for the Defense Acquisition Workforce (government and industry, about 500,000 strong). How would you do this? Where do you start? Whom do you call? Is this even possible?

This is exactly what happened as a result of the Weapon Systems Acquisition Reform Act of 2009 (WSARA). The Product Support Assessment Team (PSAT) requested the development of an online tool that would meet these requirements. The Defense Acquisition University (DAU) and the Services were asked to take on the challenge.

I was selected as the DAU lead to form and manage the team. You know you're going to need a small but powerful team when something is this challenging. In January 2011, the *DoD Integrated Product Support Implementation Roadmap* core team was formed with five members. This small but powerful and experienced team had representatives from the Army, Navy, Marine Corps and Air Force. We also had contractor support to help develop the tool in an electronic format. We started from the requirements provided to a concept, then a strategy, then development and implementation of the solution/tool. Subject matter experts were sometimes invited to join

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The *DoD Integrated Product Support Implementation Roadmap* is a performance learning tool designed to assist the Defense Acquisition Workforce plan, develop and implement effective and efficient product support strategies that deliver affordable readiness for our warfighter stakeholders.

and assist us when we addressed subject areas on which we lacked expertise.

I was invigorated by the challenge. Years ago as a working logistician in a Navy program office, I spent hours searching for information on policy, guidance, templates, tools, training or advice from more seasoned logisticians. Any resource that would help put together timely and high-quality support to the program manager (PM) was valuable. This project provided an opportunity to build a capability I had personally needed when working on a program.

Biweekly meetings quickly turned into weekly meetings. Initially, we thought we could break for lunch and return to work through the afternoon. We soon learned that "critical thinking and cooperation" of this nature required our best efforts for three to four intense hours of discussion and discovery, after which we adjourned for the day. Unlike the morning hours, the hours after lunch proved to be nonproductive. Brain drain was rampant in the afternoon. Eighteen months later on Oct. 1, 2012, after weeks of discussion and focused collaboration, the *DoD Integrated Product Support Implementation Roadmap* was released!

Our initial framework evolved around the 12 integrated product support (IPS) elements (https://acc.dau.mil/ips-guidebook) (previously the 10 integrated logistics support [ILS] elements). In order to analyze the elements across the total life cycle, we realized that each element needed to be broken into activities and outputs during each acquisition phase. As we began identifying activities and outputs, they became so numerous we decided we couldn't possibly identify and include all of them in layers of great detail. We needed to stay at a higher level. We also quickly learned that we could not build a process. Organizing a large amount of detail and trying to make a process flow out of it would create an almost unusable tool for the workforce. Our goal was to make a useful and understandable tool for the workforce, while at the same time creating the capability to link to additional in-depth information. Hopefully, it would enable them to gather the best and most current information so their program could be tailored to achieve the best results.

With the IPS elements, and the activities and outputs clearly identified across the acquisition phases, something still remained incomplete. After more "critical thinking and cooperation" on the team's part, we created two more major categories. With WSARA, the product support manager (PSM) was now a key leadership position (KLP) along with the program manager (PM). The PM had a major interest in the development and implementation of the product support package for the program. Product support management is a major contributor to a program's key events and products (such as milestone documentation, Analysis of Alternatives (AoA), Test and Evaluation Plan (TEMP), cost estimates, etc.). Product support planning feeds into milestone documentation, thereby enabling successful Defense Acquisition Board (DAB) reviews. Product support management also is a major contributor to logistics, programmatic and technical reviews over the life cycle. Thus were created the two categories of "Major Program Key Events/Products" and "Logistics, Programmatic and Technical Reviews" (across the acquisition phases).

On top of all these challenges, we had to conquer the semantics among the different Services and DoD. Some activities are called different things among the Services, and all Services don't have the same activities. Words became very important, and choosing the "right" lexicology (the study of the form and meaning of words) was challenging (i.e., Key Product Support Definitions).

The following are some of the specific things we first identified that shaped the product support *Roadmap*.

The primary users of the product support *Roadmap* would be:

- Product Support Managers (PSMs)

Before an Army Stryker engineer squad vehicle equipped with a mobile gun system is airdropped from a C-17 Globemaster III, product support planning and implementation have been ongoing since the Material Development Decision. The 12 IPS elements are accounted for from the material solution analysis phase through operations and support.
U.S. Air Force photo by Kevin Kidd.

- Life Cycle Logisticians (LCLs)
- Program Managers (PMs)
- System Engineers (SEs)
- Subject Matter Experts (SMEs)
- Government and Industry Acquisition Professionals
- DAU students—resident and online courses, continuous learning modules

The final design of the *Roadmap* incorporated three major areas. They are major program key events and products, logistics/programmatic/technical reviews, and the 12 IPS elements.

The *DoD Integrated Product Support Implementation Roadmap* online tool provides two views. The first view is a "list view" that shows a compact list of product support activities and at what acquisition phase they are required. The second view is a "timeline view" that shows activities and outputs over the total life cycle.

When you open either view, you will see many activities or outputs listed. Each item is connected to a meta card that provides links to additional information.

The meta cards provide links to Office of the Secretary of Defense policy/guidance such as DoD Instruction 5000.02, the *Defense Acquisition Guidebook* (*DAG*) and various guidebooks. Other links to applicable references or tools are the *Integrated Product Support Element Guidebook*, ACQuipedia Articles, *DAU Glossary*, Milestone Documentation Identification; other functional area tools such as the Systems Engineering Review Technical Slider, Systems Engineering Technical Review Timing, links to DAU training and, finally, Service-specific links. All these links can be accessed from the Defense Acquisition Portal (DAP) smart page at https://dap.dau.mil/smart/.

The feedback button on each meta card is very important. This is your opportunity to provide updated or new input to the team. The *Roadmap* includes more than 2,800 data items. Sustainment is a challenge. Therefore, we value feedback from SMEs and the Services to help provide the most current information to the workforce.

Examples of links to other functional areas on the product support *Roadmap* demonstrate the importance of integration among the functional areas:

- Better Buying Power (BBP) Gateway (http://bbp.dau.mil/)
- Department of Defense Source Selection Procedures (DoD SSP) (https://acc.dau.mil/dodssp)
- Comparison of Major Contract Types—2014 (https://acc.dau.mil/contract-types-card)
- *DAG* Chapter 10.2.1 Defense Acquisition Board (DAB) (https://acc.dau.mil/CommunityBrowser.aspx?id=518695)
- Milestone Document Identification (https://dap.dau.mil/mdid)
- *Test and Evaluation Management Guide* (https://acc.dau.mil/temg)
- Systems Engineering Technical Review Timing Tool (https://acc.dau.mil/docs/technicalreviews/dod_tech_reviews.htm)
- Systems Engineering Technical Review Slider (https://acc.dau.mil/docs/technicalslider/slider.html)
- *Acquiring and Enforcing the Government's Rights in Technical Data and Computer Software Under Department of Defense Contracts: A Practical Handbook for Acquisition Professionals* (https://acc.dau.mil/CommunityBrowser.aspx?id=431675).

The following scenarios provide examples of how the DoD Product Support *Roadmap* can deliver important information and guidance.

You are the PM on an ACAT (Acquisition Category) I program. You need information on what exactly the PSM is responsible for and when to expect it. The *Roadmap* provides a List View of the 12 IPS, major program key events/products and logistics/

A small-diameter bomb hits its target. The SDB is a 250-pound class munition providing the warfighter with a fourfold increase in weapons per aircraft station. The bombs are delivered in single, reusable aluminum weapon containers or loaded on a miniature munitions carriage. Supportability testing is a critical part of product support planning and implementation. U.S. Air Force photo.

programmatic/technical reviews. The Time Line view provides activities and outputs from all of these areas in an acquisition phase related perspective. This provides the PM with an understanding of what is required in the concept, development and implementation planning for product support on the program, when to develop and execute it and how the PSM supports the program. The PSM is responsible for providing inputs to all the technical reviews, requests for proposals and statements of work, the integrated master schedule, the Product Support Business Case Analysis (for contracts and funding requirements), etc. The *Roadmap* provides integrated information across all functional areas, not just Logistics.

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You are a new life cycle logistician. The PSM you work for has asked you to attend an Independent Logistics Assessment (ILA). You aren't sure of what happens at an ILA or how to prepare. The *Roadmap* provides you information on ILAs. Look at the time line view under Logistics/Program/Technical reviews. Click on ILA and it will provide a meta card with definition, ACQuipedia article, guidebook references, Service-specific references, policy, communities, training and other resources—everything you need to know about an ILA, all in one place.

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You are a systems engineer looking for specific information on Supportability Analysis and other engineering-related topics over the total life cycle. Search the *Roadmap* (ctrl F) and find information in both the List View and Time Line View that is pertinent to what you are looking for in the maintenance planning, supply support, design interface, sustaining engineering, training and training support, manpower and personnel, technical data, support equipment, computer resources, packaging, handling, storage and transportation, and facilities and infrastructure. There is abundant information for systems engineers on the *Roadmap*. This also includes all the technical reviews, information on engineering change proposals, configuration management, causal factors, failure mode, effects and criticality analysis (FMECA), etc.

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You are a logistician on an ACAT III program. You are unfamiliar with activities in sustaining engineering during the Operations and Support phase. You can find specific information on both the List View and Time Line View (activities and outputs) regarding this specific product support element and acquisition phase from the *Roadmap*. You would also want to review the design interface IPS element along with sustaining engineering.

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You are a new life cycle logistician on a program that just achieved its Milestone C. The PSM you support has asked you to provide updates to the Life Cycle Sustainment Plan (LCSP) for maintenance during the Production and Deployment (PD) phase. You need more detailed information on the LCSP and also maintenance planning during PD. The *Roadmap* will provide you specific information about Maintenance Planning during the PD phase. You can use both the List View and the Time Line View.

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DoD acquisition is complex! But with a good roadmap, the ability to think critically about your specific program and a small, powerful and experienced team, you will get there from here. I guarantee that the journey will be challenging, complicated and complex, but it will also be worthwhile, fulfilling and rewarding to know you have done your best to support our warfighting community and defend our freedom.

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