

Joint Program Executive Office Chemical and Biological Defense (JPEO-CBD) Provides Joint Weapon Systems Total Life-Cycle Management

LTC Vincent Johnston

Since 2003, one office has been the single focal point for integrating CBD research, development, procurement, and fielding efforts throughout DOD. In addition to this role, the JPEO-CBD also enhances the life-cycle management approach implemented to transform paradigms and move from multiservice support processes to a joint service sustainment strategy within the CBD program (CBDP). Led by BG Jess A. Scarbrough and headquartered in Falls Church, VA, the JPEO-CBD is increasingly involved in the operations and support (O&S) phase of the systems acquisition process by augmenting the services' statutory responsibility to equip, train, and sustain the forces.

Here, 12th Chemical Co. Soldiers, wearing fully encapsulating Level-A protection, use a chemical vapor detector to "sniff" for oxygen displacement and hazardous chemical vapors coming from a suspected clandestine lab entrance during a scenario training exercise administered by a Mobile Training Team from the U.S. Army CBRN School. (U.S. Army photo.)

Guiding Principles

Affordability, interoperability, and common operating picture are not just buzz words, but guiding principles to maximize resources and provide the Nation's warfighters with the best capabilities possible. These principles also follow the guidance of the *2006 Quadrennial Defense Review*, which emphasizes joint logistics and calls for shifting the focus from service-specific programs to joint capabilities. This approach is a necessity, as well as good business sense, and is at the center of the JPEO-CBD's life-cycle management philosophy.

Joint Project Managers (JPMs)

JPMs develop, field, and support the sustainment process of the equipment provided to warfighters. From the early stages of the acquisition process, JPMs coordinate and formulate joint sustainment support strategies. This enterprisewide involvement in the process leads to buy-in, as well as integration of valuable emerging and proven support concepts, successfully employed across the joint services.

As the materiel developer for the CBDP, the JPEO-CBD's approach to total life-cycle systems management implements multipurpose strategies to support warfighters with the most combat-effective capabilities within the most efficient business processes. These strategies are intended to modernize the portfolio, maintain the technological edge, and reduce the O&S costs to the services. Within this construct, trade space exists where considering alternative business processes or realigning priorities yield high return on investment (ROI) within the CBDP. One such approach aims at modernizing the force in areas where high ROI significantly increases readiness and decreases O&S costs to the services.

Joint weapon systems sustainment is complex, must address all the individual services' unique operational

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requirements, and must be "born joint" from the beginning of the acquisition process. The fastest way to achieve this goal is to accelerate the modernization pace by introducing a joint-born system with joint sustainment strategies.

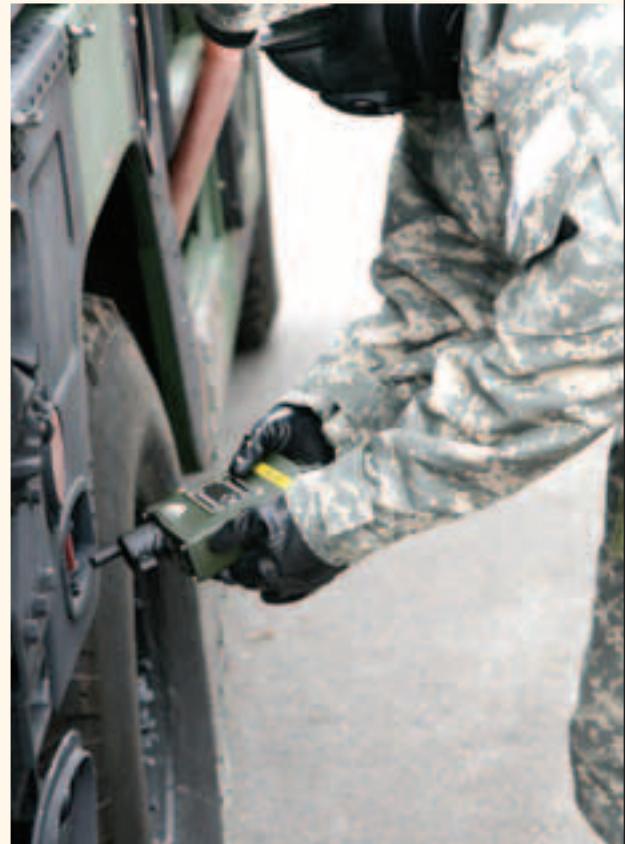
Accelerating Fielding of Current Systems

Approximately 50 percent of the CBDP systems in the field today are more than 20 years old and require significant time, effort, and resources to keep them operational. The O&S costs required to maintain these systems are a tremendous burden to the services and grow every year. Compounding the problem is the impact of several "service-unique" systems that remain in the inventory. Many of these systems are low-density items and, in some cases, experience diminishing manufacturing sources and material shortages that increase the services' costs to sustain. Accelerating the fielding of newer systems increases readiness and reduces O&S costs, logistics footprint, and training requirements.

The Joint Chemical Agent Alarm (JCAD) illustrates this concept well. This system replaces up to three legacy systems in the field today: M8A1 Chemical Agent Alarm (20-plus years old), Automatic Chemical

Agent Detector and Alarm (15 years old), and Improved Chemical Agent Monitor (15 years old). The O&S cost for a JCAD is approximately \$457 per year. Conversely, the combined annual O&S cost for the aforementioned three legacy systems is approximately \$6,700 per year. Thus, for every JCAD fielded, the services' O&S bill drops approximately \$6,200 dollars per year.

Another such instance is the Joint Service General Purpose Mask (JSGPM), a lightweight, nuclear-, biological-, and



The JCAD is capable of detecting blood agents and toxic industrial chemicals, capabilities not seen in currently fielded hand-held detectors. Here, a Soldier dressed in Mission-Oriented Protection Posture gear surveys the surface of a vehicle with a JCAD. (U.S. Army photo.)

chemical-protective mask system consisting of mask, carrier, and accessories. It incorporates state-of-the-art technology to protect U.S. forces from actual or anticipated threats. The mask components are optimized to reduce their impact on the wearer's performance and to maximize their ability to interface with protective clothing. The JSGPM is replacing the M40/M42 series of masks for the U.S. Army and the U.S. Marine Corps (USMC) ground and combat vehicle operations, and the MCU-2/P series for the U.S. Air Force and U.S. Navy ground and shipboard applications.

Accelerating modernization of equipment is one aggressive measure aimed at improving capabilities, while reducing costs and logistics footprint. However, it is not the only focus of rethinking the way we do business. Another way of addressing areas to improve is through an enterprisewide approach to enhance relationships and business processes within the community.

Organizational Relationships

Joint sustainment is the most challenging part of the joint acquisition process. Successfully implementing joint sustainment strategies requires an understanding of the operating environment and proactively engaging all stakeholders early and throughout the acquisition process. Most importantly, it requires the development of relationships that foster institutional trust among all parties. To this end, JPEO-CBD regularly hosts monthly and quarterly joint reviews where stakeholders come to discuss and resolve issues, which vary from systems in the acquisition process to post-fielding

and sustainment activities. These forums create a seamless integration of responsibility and authority at all stages of an equipment's life cycle.

Working these issues and recommending these strategies is the purpose of the Joint Logistics Advisory Council for CBD (JLAC-CBD), which is chartered and composed of all stakeholders in the CBDP. Its main purpose is to recommend servicewide business process improvements that address best practices for the JPEO-CBD. The JLAC-CBD focuses on exploring total life-cycle systems management process improvements that are within the JPEO-CBD's authority to implement. Chartered in 2006, this body promotes cooperation and open communication, identifies and recommends business process improvements, and engages stakeholders throughout the acquisition process to promote joint sustainment strategies.

The Joint Materiel Release (JMR) Program is an example of the cooperative nature of this body and the significant impact its recommendations have on joint sustainment. In September 2007, the U.S. Army delegated Materiel Release Authority for CBDP to the Joint Program Executive Officer CBD, also the program's



LCpl Michael C. Myers, CBRN Defense Specialist, 3rd Marine Division, III Marine Expeditionary Force, adjusts the M50 JSGPM. The JSGPM is replacing the M40/M42 series of masks for the Army and USMC ground and combat vehicle operations. (USMC photo by LCpl Abigail Wharton.)

Milestone Decision Authority (MDA). The program's goal is to take the four separate service processes and integrate them into a single JMR process to eliminate redundancy and streamline acquisition efforts while ensuring the joint forces receive safe, effective, suitable, and supportable systems.

The JPEO-CBD ensures this happens through independent assessments known as the Joint Independent Logistics Assessment (JILA) process. When initiated early, the JILA process provides the JPM timely awareness of potential risk to the program, enabling him/her to mitigate or eliminate those deficiencies. Additionally, the JILA process provides the JPM, the warfighter, and the MDA with an unbiased evaluation of the program, allowing the MDA to determine if the system satisfies the

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safety, suitability, and supportability tenets before fielding to the services.

For its superb work, the JLAC-CBD was recognized at the 2009 U.S. Army Acquisition Corps (AAC) Annual Awards Ceremony as the recipient of the Army Acquisition Excellence Award: Transforming the Way We Do Business. This recognition is a testament to the contributions and innovation of the team in the area of weapon systems sustainment.

Information Technology (IT): Tying It Together

The JPEO's IT systems are the critical component of this strategy. Without a flexible, robust, and easy-to-use IT structure, full and open access to critical

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CBDP acquisition information cannot exist. Without access to this data, trusting relationships cannot develop between the JPEO-CBD and its stakeholders.

At the center of this information exchange is the Joint Acquisition Chemical, Biological, Radiological, and Nuclear (CBRN) Knowledge System (JACKS). JACKS is a secure IT site that provides a single-entry point to CBRN defense equipment characteristics, capabilities, and acquisition information. JACKS is not a database, but rather a "portal" to access reliable and timely data harvested from other official logistics and capabilities systems. It provides authorized users access to CBRN equipment advisory messages, training materials, and contact information. It allows users to search and display information about CBRN equipment, including name, part number, and/or category, stock number, description, cage locations, and service-specific management instructions, as well as packaging, freight, and other critical logistics details. JACKS is a "one-stop shop" for CBRN logistics information, ties into the services' existing logistics supply management systems, and provides 24-hour help-desk information on all CBRN items.

There are challenges ahead, but the work continues at

many levels. Industrial base maintenance concerns are at the forefront of the JPEO-CBD's actions to ensure appropriate capabilities exist to respond to the Nation's needs. Maximizing the investments made during wartime and increased demand periods must be balanced by deliberate study and action to ensure preparedness during future surge requirements.

Although the JPEO-CBD's approach to implement a truly joint sustainment strategy is still emerging, the results have been positive. All the initiatives discussed have resulted in tangible cost avoidance, better business processes, and improved communications. More importantly, these initiatives are helping the JPEO-CBD evolve from the current multiservice sustainment processes to a joint sustainment process that focuses on building alliances.

Author's Note: Gabe Patricio of Patricio Enterprises and Julius Evans, JPEO-CBD Public Affairs Officer, contributed to this article.

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SGT Sean Christen (right), a team leader with the CBRN Reconnaissance Platoon, Headquarters Co., Special Troops Battalion (STB), 2nd Brigade Combat Team, 82nd Airborne Division, suits up combat engineer SGT Matthew Torrence in a Level-A CBRN suit during the STB's cross-brief training. (U.S. Army photo by SSG Michael Pryor.)