



Cushioning *the* **FALL**

PEO Ammo devises creative ways to preserve industrial base capabilities as materiel demand declines

by Mr. Gary L. Barber and Mr. Rene Medina

Over the past 10-plus years of war, the national technology and industrial base (NTIB) has grown to meet the demand for a multitude of energetics and munitions to support the theater requirements of combatant commanders. As a major provider of battlefield munitions across the joint services, the team of Project Manager (PM) Close Combat Systems (CCS), part of Program Executive Office Ammunition (PEO Ammo), successfully expanded several areas of the NTIB in support of operations, including aircraft pyrophoric countermeasure flares, which ignite in contact with air; grenades; detonation cord; and other combat enablers. These capabilities provide increased survivability and lethality to our aircraft and Soldiers.

Now, amid shrinking budgets and continuing sequestration cuts, the Army faces a significant downsizing after years of expansion to support and sustain combat in two theaters, and the acquisition community within PEO Ammo is reacting to these changing requirements and constrained resources. Team CCS is striving to inform strategic leaders of the shifting landscape and is adapting its procurement strategies to ensure the preservation of vital industrial base (IB) capabilities.

A FLARE FOR INNOVATION

A1C David Vasquez of the 355th Security Forces Squadron fires a slap flare during a night combat tactics class Oct. 15, 2013, at Baumholder Airfield, Germany. Team CCS is a major provider of these and many other battlefield munitions across the joint services. (U.S. Air Force photo by A1C Jordan Castelan, 86th Airlift Wing)



POWERFUL CAPABILITIES

U.S. Army PFC Isaiah Montalvo, left, receives instruction on how to properly prepare a C4 explosive from SGT Andrew Evatt at the Yakima Training Center, WA, April 10, 2013. Both Soldiers are assigned to the 14th Combat Engineer Battalion, 555th Engineer Brigade. Production of munitions such as this grew during Operations Iraqi Freedom and Enduring Freedom, and is now set to contract. (U.S. Army photo by SSG Antwaun Parrish, 5th Mobile Public Affairs Detachment)

Team CCS, along with other material developers in PEO Ammo, is conscious of the multitude of potential impacts on the NTIB. In response, it is assessing and executing procurement strategies to manage this contraction responsibly, to meet the needs of a budget-constrained force and keep the base warm.

Across the portfolio, Team CCS has been employing Better Buying Power (BBP) 2.0 management tools and competitive contracting strategies to address the needs of the Army while balancing and supporting critical IB sustainment. These efforts include promoting competition, more effective use of market surveys and awarding shorter-term contracts to create opportunities for companies to expand their

current portfolios and keep production lines going.

FACILITY FLUCTUATIONS

After hostilities began in Afghanistan and Iraq, facilities and production lines were added to meet increased demand and to react rapidly to unanticipated conventional and hybrid threats. The NTIB expanded accordingly. Now, with the Iraq war over, operations in Afghanistan ramping down and the Budget Control Act resulting in decreased funding primarily through sequestration, many companies in the IB are contracting.

For example, at the start of 2003, there was only one facility supporting DOD in the production of aircraft pyrophoric countermeasure flares. As requirements

grew for all three services, PM CCS, along with the Navy and Air Force, worked with the supplier to increase capacity to meet DOD needs. The supplier grew from one facility to three to support the requirements for aircraft pyrophoric material countermeasures. As budgets have shrunk over the past several years, the contractor has right-sized itself to adapt to the lower demand. (See Figure 1 on Page 118.)

While many companies within the IB are right-sizing their workforces and production lines to meet the lower demand, Team CCS continues to assess risks, balance resources and make decisions to sustain production for critical strategic capabilities. In spite of these efforts, the reality is that, as the force becomes leaner, the team’s equitable decisions to keep the base warm with fewer resources may not be enough to sustain all of them.

GROUPING FOR MAXIMUM BENEFIT

Part of Team CCS’s core acquisition strategies that help shape the IB is to combine family-of-capability purchases, or “family buys,” grouping multiple items together to help maintain minimum sustainment rates for many of the items. Team CCS has employed this strategy successfully with the continuing acquisition of handheld signal flares. This family-buy approach allows the manufacturer to keep leaner staffs and production lines going at a steady rate without interruptions.

For example, a family buy pooled six handheld signals (M125A1, M126A1, M127A1, M158, M159 and M195) on one contract, allowing Team CCS to have sufficient quantities on contract to meet the manufacturer’s minimum sustainment rates, rather than having them produced all at once. This vehicle also



DOWNWARD TREND

An Army CH-47 Chinook, equipped with the Common Missile Warning System and Advanced Threat Infrared Countermeasure suite of countermeasures, expends flares during recent flight tests. Aircraft pyrophoric countermeasure flares are among the areas of the NTIB that Team CCS has expanded to provide increased survivability and lethality to aircraft and Soldiers. Now the focus has shifted to adapting procurement strategies to shrinking demand as overseas operations draw down. (U.S. Army photo)

allows the Army to buy particular hand-held signals in alternating years. Thus, the Army is not required to make buys to add to existing inventory, and there are still sufficient quantities for the manufacturer to meet its production needs. In situations where multiple items are on the same production line, Team CCS is investigating alternating yearly buys of various handheld signals. This would allow it to help manage inventory levels, put funding where it is most needed and maintain continuous production.

Additionally, Team CCS is considering employing an acquisition contract strategy that combines multiple aircraft pyrophoric countermeasures. This would

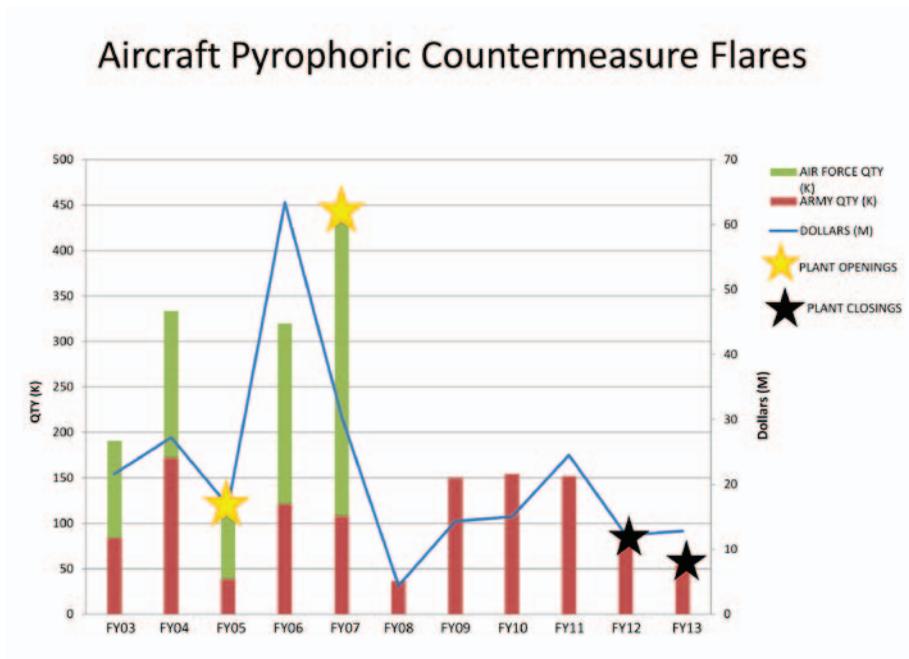
create a contractual vehicle that not only maximizes the ability to obtain more economical buys for the Army and Air Force, but also creates better volume for the contractor to set up its production line and retain core line workers.

Team CCS is also considering the possible efficiencies in combining procurements of similar grenade fuzes, including those bought separately and those bought under grenade system contracts. One critical aspect of such an approach is to consider the impact on competition. Historically, fuzes and grenades were bought separately as the most efficient procurement strategy. To understand IB sensitivities, growth opportunities and

risk areas, Team CCS conducted multifaceted market research to reassess this approach. As a result, the team discovered that, given the similarities among the fuzes for different types of grenades, these items could be combined under the same contract vehicle with the objective of maintaining competitive hardware unit pricing for small buys of fuzes.

Solicitation packages developed by the production engineers can also be streamlined, thereby reducing the support otherwise needed for duplicate packages, as well as reducing the labor needed to evaluate multiple, separate proposals and provide contract oversight. These market surveys, periodic meetings, and advanced

FIGURE 1



CHANGING TIMES

At the start of 2003, only one facility supported the production of aircraft pyrophoric countermeasure flares. As requirements increased for all three services, the supplier expanded from one facility to three. As requirements have decreased, the contractor has right-sized itself to adapt to the lower demand, closing two facilities. (SOURCE: PM CCS)

planning briefs to industry and symposia helped our team refine acquisition strategies to reduce program costs while ensuring a viable, competitive environment.

COMPETITIVE CONTRACTING

Team CCS found another effective use of market surveys by looking into the CCS-managed detonation cord, used as a detonating agent, a priming agent or alone as an explosive charge. In the past, with only one known source capable of manufacturing detonation cords, our team supported a family buy of five detonating cords. Re-examining this approach for an FY13 solicitation, our team conducted in-depth market research that included telephonic interviews with commercial detonation cord

manufacturers and suppliers regarding procurement of the cord.

This new research indicated additional interest in producing the detonating cords. However, as in the past, only one producer met the NTIB restriction for pentaerythritol tetranitrate (PETN), a highly explosive organic compound at the core of detonation cords. The research also showed that the producer of this explosive had a supplier agreement to sell only military-grade PETN to one manufacturer, which limited competition within the NTIB. The needed quantities of military-grade PETN are very small, and not restricting it to the NTIB would pose no harm to the producer. Therefore, Team CCS decided that PETN would not be restricted to the

NTIB. This allowed potential vendors of detonating cord to buy PETN from offshore suppliers and thus expanded the potential number of manufacturers for detonating cord in the NTIB.

Additionally, Team CCS broke out the family buy of five detonating cords, since one of the cords could still be produced only by a specific manufacturer. Two contracts were awarded—one competitive, three-year contract within the NTIB, and one sole-source contract for a shorter duration. The shorter, two-year contract provides repeated opportunities for manufacturers to re-compete in the near term and increases the likelihood that there will be a sustained IB to support detonating cord requirements in the future.

NURTURING THE BASE

A primary tool for Team CCS to manage our munitions IB responsibly is the Section 806 process. Section 806 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 permits the Army to restrict procurement actions to less than full and open competition as a way to protect the North American munitions IB. This allows the Single Manager for Conventional Ammunition within DOD to limit actions to sources within the NTIB. This law helps preserve those unique capabilities and suppliers in the NTIB that are considered critical to producing conventional ammunition. Team CCS and PEO Ammo use Section 806 to ensure that acquisitions stay within the NTIB for items that are at risk of being lost without government intervention. (See related article on Page 120.)

In our acquisition strategies, our team works to identify potential sources of single-point failure (SPF) where an end item or subcomponent has only one



SPARK OF EFFICIENCY

1LT Charles Morgan, with the 6th Squadron, 4th Cavalry Regiment (6-4 CAV), 3rd Brigade Combat Team, 1st Infantry Division, throws an M67 fragmentation grenade during skills training in Kun-duz province, Afghanistan, July 3, 2013. Team CCS is exploring potential efficiencies in combining procurements of similar grenade fuzes. (U.S. Army photo by SGT Robert Avila, 6-4 CAV)

qualified producer available, and to ascertain vulnerable second- and third-tier suppliers that need to be protected. Funding is then prioritized for items in those important areas whenever possible. Section 806 is also used to ensure that acquisitions stay within the NTIB for those items on the SPF list. These efforts sustain important strategic supplies and capabilities for the security of our nation.

CONCLUSION

Team CCS is working with its industrial partners to maintain important capabilities and adequate capacity in the NTIB, using some of the tenets of BPP 2.0. The team does this through a number of strategies including leveraging economies of scale, promoting competition and using Section 806 policies to sustain the health of key industrial capabilities. The approaches cited in this article

are examples of procurement strategies to responsibly manage the impact of reduced budgets on the IB. How the base survives also depends on how adaptive our industry partners are.

Team CCS will continue to assess risks across the NTIB. It will explore and use both proven and innovative strategies that help to mitigate the impacts of constrained resources and maintain strategic technologies in the NTIB that improve the lethality and survivability of our operational forces.

For more information about PM CCS, go to <http://www.pica.army.mil/pmccs/Default.html>.

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