Introduction

The U.S. Army is in the midst of an unprecedented transformation. The Army’s Objective Force will provide the Joint Force Commander a military that is more responsive, deployable, agile, versatile, lethal, survivable, and sustainable. To meet the Army’s challenge, DOD’s entire logistical system—from the factory to the foxhole—must be transformed. This transformation must include the operations of the Army’s organic industrial base and its relationship to private industry, both essential elements of the whole defense manufacturing capacity on which our Nation’s warfighters depend.

Transformation of logistics from the factory to the foxhole makes a nice bumper sticker. But if we are really serious about transformation, we must develop a common understanding of the problem. Many people in our field logistics system and many in the private sector understand the details of their particular industry. But few people are familiar with our government industrial base facilities such as depots, arsenals, and ammunition plants. True transformation requires a holistic approach, as the expression factory to foxhole implies. Reducing the logistical footprint of our deployed forces requires an agile industrial base to make up for what we ask our soldiers to leave behind. Failure to invest in our industrial base to ultimately make it more agile creates unacceptable risk to forward-deployed soldiers on the battlefield.

Yesterday

After the Revolutionary War, Alexander Hamilton advocated the development of a domestic armament base. Because the arms industry was very much in its infancy, the new government built public ordnance facilities to help satisfy its need for war materiel. Congress supported the public manufacture of arms and powder by appropriating funds for the establishment of federal arsenals, armories, depots, laboratories, and magazines so the United States would become independent of foreign nations for essential military stores. In 1794, our first arsenal was established in Springfield, MA. The arsenal served the Nation until its deactivation in 1968.

Yesterday has always been a precarious balance between the public and the private sector. During the Revolutionary War, we relied almost entirely on private and domestic sources to arm our troops. This relationship often produced unsatisfactory results in both quantity and quality of deliveries. This prompted President Washington to ask Congress to approve a bill establishing several permanent arsenals to free the republic from dependence on unreliable private sources. However, complete independence from contractors proved both infeasible and undesirable. Arsenals also allowed the government to maintain a peacetime repository for ordnance knowledge that could be leveraged by the private sector to expand production during war.

Connected to this relationship and also central to the arsenals’ experience has been the cyclical nature of the Nation’s wars resulting in a boom-and-bust cycle for the arsenals. Private industry was the source for all artillery, gunpowder, and much of the small arms produced during the Civil War. After the Civil War, the Nation reduced its capabilities and relied even more on private industry. Unfortunately, private industry did not maintain significant investments in production capacity for Army munitions because of limited demand and profit. This further illustrates the cyclical nature of defense manufacturing. Fortunately, our arsenals maintained the expertise needed by both government and private defense production in wartime. This knowledge was invaluable as the Nation mobilized for the global requirements of total war during World War II.

As we entered the Korean and Vietnam Wars, we had an industrial base designed to support global operations. Fortunately, the nature and scale of these wars paled in comparison to World War II. The national strategy relied more on strategic weapons than conventional forces to meet the Soviet challenge. Economic concerns prompted a long trend toward privatization of defense facilities. Many arsenals and defense activities closed while others simply concentrated on research and development. Arsenals began competing with private industry for work. The Nation’s degree of industrial sophistication, defense budgets, and the peacetime availability of private profit in arms manufacture have all played a

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role in determining how successful the arsenals could be as repositories of the production know-how essential for private defense producers. These constraints often placed frustrating limits on the arsenals as partners with defense-industry counterparts.

**Today**

Today we look at the industrial base as a mix of commercial and government industrial-base capabilities. The Army relies on the commercial industrial base to meet materiel requirements to the maximum extent practicable. But we focus our organic government capabilities to maintain critical industrial technologies and to mitigate risk associated with the lack or potential loss of commercial capabilities.

These new conditions require the Army to size and work our organic capabilities to support peacetime and wartime requirements. The Army Materiel Command (AMC) must maintain the government’s facilities in modern operating condition to ensure quality and enhance productivity while encouraging public-private partnerships to defray the cost of ownership for those commercial capabilities. With such a reliance on the commercial sector, the Army must be able to monitor and assess the health of the commercial industrial base to identify and manage the potential risks.

The organic government industrial base consists of the Army-owned arsenals, maintenance depots, and ammunition plant activities. Some could call this capability the Nation’s insurance policy. While acknowledging it must divest itself of excess industrial facilities, the Army also recognizes that terminating an organic government manufacturing capability or moving it to the commercial industrial base may result in a capability being lost. Consequently, the Army must be judicious in its management of its inherent base because re-establishing a lost capability may be costly, politically and legally prohibitive, and may take more time than an emergency situation would permit. Public-private partnerships take on an increasingly more important role in maintaining the organic industrial base.

**Tomorrow**

As we look into the future, we recognize we will continue to balance government and private-sector capabilities to meet our defense needs. Affordability will demand that we always try to balance the costs and risks of our industrial-base activities. In the future, we are likely to seek even closer relationships between government and private activities. The goal will be to make the most efficient use of scarce investment dollars while also leveraging the best characteristics of public and private-sector capabilities.

AMC realigned the Rock Island, IL, and Watervliet, NY, arsenals under the Ground Systems Industrial Enterprise, a single business unit at the Army Tank-automotive and Armaments Command, to optimize support for ground systems across the Current, Interim, and Objective Forces. The Army has also aggressively pursued the Armament Retooling and Manufacturing Support Program to reduce the cost of Army-owned ammunition production facilities, while maintaining necessary production equipment and a skilled workforce. This initiative is based on the proven best practices of public-private partnerships successfully demonstrated at the state and county level. The Arsenal Support Program Initiative is a major modernization effort modeled after the proven success of the Armament Retooling and Manufacturing Support Program with the ammunition industrial base for our government arsenals. Under the Arsenal Support Program, public-private partnerships generate revenue to modernize and consolidate core competencies. Army depots are designated as Centers of Industrial and Technical Excellence and maintain core capabilities in the types of equipment overhauled, rebuilt, modified, upgraded, or repaired at their respective facilities.

The Army’s organic industrial base today consists of facilities that produce ammunition, store munitions, manufacture components, and maintain equipment. The facilities, located throughout CONUS, consist of government-owned, government-operated and government-owned, contractor-operated facilities.

At both government and contractor ammunition facilities, the Army produces, loads, assembles, and packs the various calibers of conventional ammunition such as small arms, mortar, and tank rounds used by all the military services. The government-operated munitions centers store and distribute ammunition rounds, bombs, and missiles. The two government-operated manufacturing arsenals produce items such as gun tubes, gun mounts, and other armament components for the Army, Navy, Marine Corps, and Foreign Military Sales. Finally, the five government-operated maintenance depots repair, overhaul, upgrade, and maintain helicopters; missiles; combat vehicles; tactical vehicles; and communication and electronic equipment for all services and other countries.

**Conclusion**

Army leadership has been committed to improving the use and efficiency of the defense industrial base where continued ownership is necessary for operational readiness and national security. The Army is committed to establishing a more effective and efficient depot-level operation, enhancing productivity of its core capabilities, and integrating innovative business processes while ensuring the best sustainment capability to the warfighter to meet operational readiness. The Army is completely committed to the readiness of the warfighter and providing the required materiel at competitive prices, not just reducing cost and infrastructure.

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