Association of the United States Army

Voice for the Army—Support for the Soldier December 2013

The Army's Organic Industrial Base

Providing Readiness Today, Preparing for Challenges Tomorrow

Aware that the future may bring unexpected crises, we must retain the ability to regenerate capabilities quickly in response to unforeseen emergencies. It is critical that we find the right balance between our organic and the commercial industrial bases. The ability to reduce the industrial base in times of peace but surge as required remains essential to equipping the Army, the Joint Force and, in many cases, our allies and coalition partners.

The Honorable John M. McHugh, Secretary of the Army and
General Raymond T. Odierno, Chief of Staff, Army[1]

Introduction

The Army's Organic Industrial Base (AOIB), a subset of the larger Defense Industrial Base, is critical to the support of joint warfighters and the equipment they use every day. The AOIB consists of 23 geographically dispersed government ammunition plants, manufacturing arsenals and maintenance depots that provide materiel and equipment readiness to U.S. Soldiers, Sailors, Airmen and Marines. Many of these installations provide one-of-a-kind capabilities that are difficult to rapidly replicate elsewhere. From small arms, explosives and cannon tubes to trucks and main battle tanks, the AOIB provides rapid, reliable, dependable support whenever and wherever it is needed. During Fiscal Year 2013, the AIOB provided $548 million in depot maintenance work and $530 million in supply support for the Army, Navy, Air Force and Marine Corps. Since 2003, over $5.7 billion of depot production has supported services other than the Army.

The health of the organic industrial base is a key aspect for the United States Army to retain the capacity and capability to conduct future contingencies. Recent testimony of the Chief of Staff, Army (CSA) to the Senate Armed Services Committee highlights the inherent strategic risk facing the nation as the American military concludes more than a decade of war:

> We have . . . learned repeatedly from previous drawdowns that the costs of creating an under-resourced and under-prepared Army will ultimately fall on the shoulders of our Soldiers who will deploy and respond to future contingencies. We have experienced this too many times to repeat this egregious error again. . . . [T]here is little to convince me that we will not ask our Soldiers to deploy again in the near future.[2]

As the Army shifts focus from wartime production to sustainment operations, it must ensure that critical capabilities are preserved in a way that will allow rapid expansion when needed. During peacetime, the AOIB must sustain those capabilities to remain effective and able to meet future requirements. The CSA's third Strategic Priority—A Ready and Modern Army—is underpinned by a diverse, efficient and scalable Army Organic Industrial Base that remains ready to answer the call.[3]

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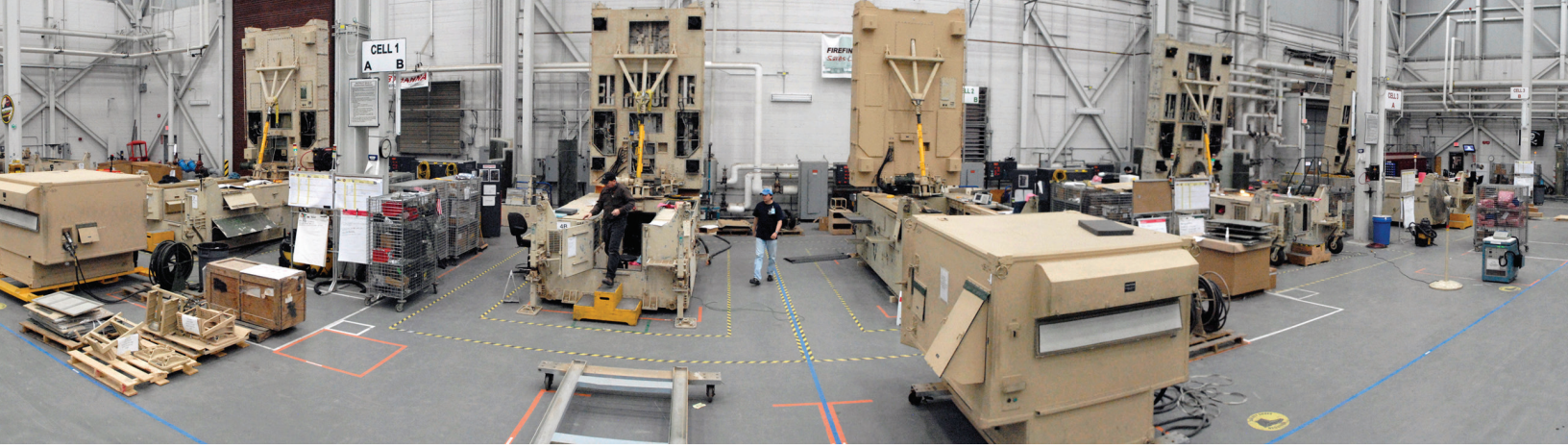
[1] From the Statement by The Honorable John M. McHugh, Secretary of the Army, and General Raymond T. Odierno, Chief of Staff, Army, on the Posture of the United States Army, before the Committee on Armed Services, U.S. Senate, First Session, 113th Congress, 23 April 2013, http://usarmy.vo.llnwd.net/e2/c/downloads/302970.pdf.

[2] From the Statement by General Raymond T. Odierno, Chief of Staff, Army, on The Impacts of Sequestration on National Defense, before the Committee on Armed Services, U.S. Senate, First Session, 113th Congress, 7 November 2013, http://usarmy.vo.llnwd.net/e2/c/downloads/319743.pdf.

[3] On 16 October 2013, General Odierno published "CSA Strategic Priorities," which included 1) Adaptive Army Leaders for a Complex World; 2) A Globally Responsive and Regionally Engaged Army; 3) A Ready and Modern Army; 4) Soldiers Committed to Our Profession; and 5) The Premier All-Volunteer Force, http://usarmy.vo.llnwd.net/e2/c/downloads/316390.pdf.



A Strategy for the Future

Over the past decade, the AOIB has reset the service life of millions of pieces of equipment and manufactured billions of rounds of ammunition and repair parts, delivering combat materiel readiness to men and women in uniform and enabling them to respond rapidly to national emergencies. Additionally, many of the AOIB installations have deployed forward repair activities (FRAs) overseas to support U.S. maintenance requirements around the world. For instance, the Army has deployed FRAs to Afghanistan, Iraq and Kuwait, where they produced and installed add-on armor and vehicle route clearance capabilities. Time and time again the AOIB has responded when called upon to support the nation.

Even as the drawdowns from Iraq and Afghanistan occur, AOIB facilities continue to reset the battle-worn equipment to meet future readiness requirements. As the Army prepares for an era of fiscal uncertainty, it must sustain and improve the critical skills and talents of its dedicated AOIB workforce to ensure the proper balance of public- and private-sector capabilities necessary to support future contingency operations while minimizing risks and costs.

In the foreseeable future, there may not be the same demand for ammunition, repair parts and reset equipment as in the past decade, but the AOIB must have the capability and capacity to respond rapidly to the next contingency. Thus, the Army is already implementing the Army Organic Industrial Base Strategic Plan (AOIBSP)—a strategy that charts a path for the future of its organic industrial base that considers risks while providing cost-effective solutions.

The AOIBSP provides a basic framework to shape capabilities to meet current and future operational requirements. Recognizing the challenges from previous drawdown efforts that dangerously degraded critical capabilities, this new strategy focuses on making the necessary investment and capacity decisions that will adequately preserve critical workforce and infrastructure capabilities. The strategic plan focuses on four key areas:

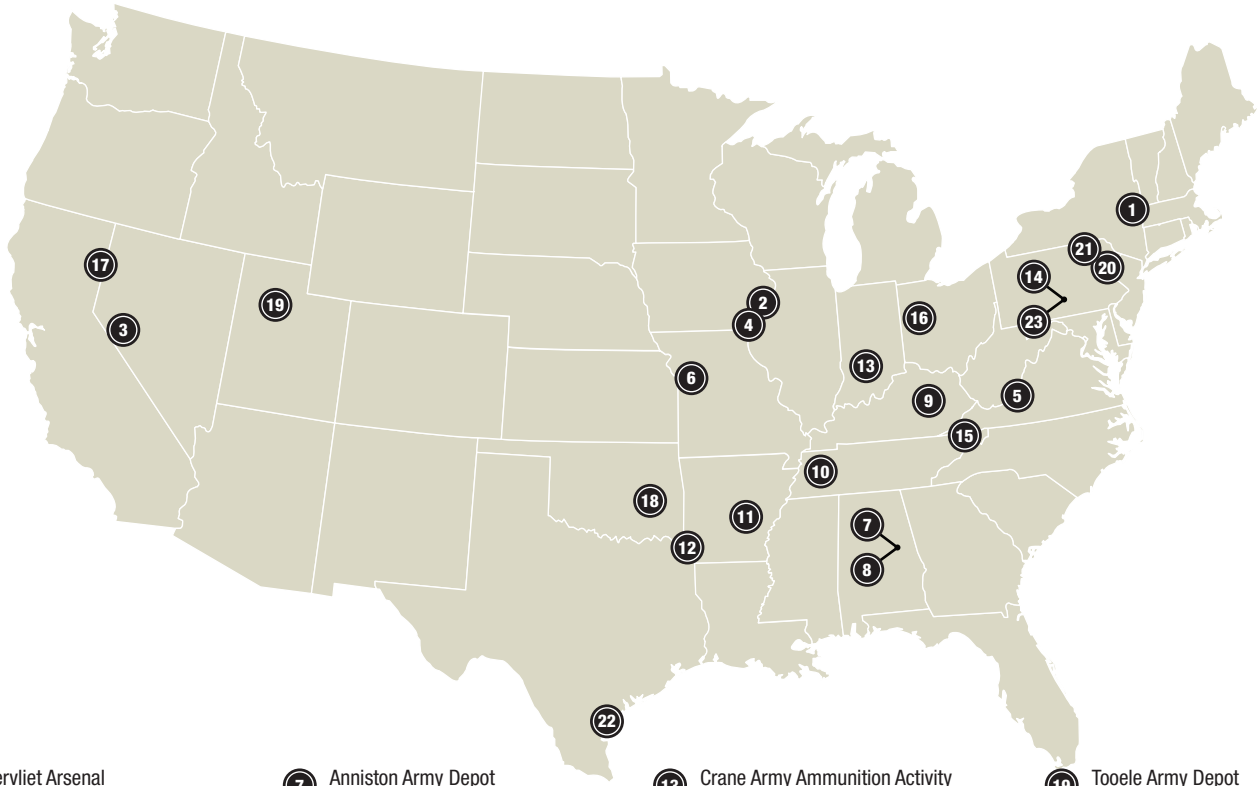
- Capacity: Ensuring the workforce and facilities are balanced to meet core and critical capabilities.
- Capital Investment: Making the necessary capital investments to preserve needed capabilities.
- Modernization: Aligning resources to maintain readiness of the Army's Organic Industrial Base.
- Workload: Setting the conditions to establish complementary capabilities between the public and private sectors.

Balancing Industrial Base Capacity. The impacts of sequestration, fiscal uncertainty and reduced requirements highlight the need to clearly identify and resource core and critical industrial base competencies and capabilities to properly size capacity against current and future requirements. Efforts are ongoing to review capacities at each AOIB installation to provide a baseline for the Army to properly align the workforce and infrastructures to meet the declining demand. Key to the success of this effort is close and continuous dialogue among the policy, sustainment and acquisition communities that enables them to properly analyze, forecast and communicate potential policy decision effects on the AOIB. These efforts are managed and synchronized through strategic reviews of performance metrics and continuous planning and analyzing of budget decisions and their impacts.

Investing to Preserve Critical Capabilities. The majority of today's AOIB installations were built in the 1940s to support World War II and have now reached or exceeded their expected service life. However, over the past six years the Army has invested approximately $1.4 billion in its depots; the greatest percentage of these funds was used to purchase and install new equipment, thereby increasing capabilities. Facility investments are needed not only for the infrastructure but also to maintain current technological and quality-of-work-environment standards. A recent review of the industrial base facility requirements identified the need for a dedicated annual investment of $150–200 million per year in Military Construction, Army (MCA) to meet a 15-year buy-out of the OIB's most important projects. In the current fiscally constrained environment, funding for investments of this magnitude is unlikely. Therefore, the Army is developing a more modest investment plan to remedy the deficiencies over a 15-year time frame.

Aligning Resources. Efforts are ongoing to optimize resources and gain efficiencies by consolidating AOIB operations that have similar capabilities or that do not have suf-

U.S. Army Organic Industrial Base



1. Watervliet Arsenal — Watervliet, New York — Established in 1813
2. Rock Island Arsenal — Rock Island, Illinois — Established in 1862
3. Hawthorne Army Depot — Hawthorne, Nevada — Established in 1930
4. Iowa Army Ammunition Plant — Middletown, Iowa — Established in 1940
5. Radford Army Ammunition Plant — Radford, Virginia — Established in 1940
6. Lake City Army Ammunition Plant — Independence, Missouri — Established in 1940
7. Anniston Army Depot — Anniston, Alabama — Established in 1941
8. Anniston Munitions Center — Anniston, Alabama — Established in 1941
9. Lexington-Blue Grass Army Depot — Lexington, Kentucky — Established in 1941
10. Milan Army Ammunition Plant — Milan, Tennessee — Established in 1941
11. Pine Bluff Arsenal — Pine Bluff, Arkansas — Established in 1941
12. Red River Army Depot — Texarkana, Texas — Established in 1941
13. Crane Army Ammunition Activity — Crane, Indiana — Established in 1941
14. Letterkenny Army Depot — Chambersburg, Pennsylvania — Established in 1941
15. Holston Army Ammunition Plant — Kingsport, Tennessee — Established in 1942
16. Joint Systems Manufacturing Center — Lima, Ohio — Established in 1942
17. Sierra Army Depot — Herlong, California — Established in 1942
18. McAlester Army Ammunition Plant — McAlester, Oklahoma — Established in 1943
19. Tooele Army Depot — Tooele, Utah — Established in 1943
20. Tobyhanna Army Depot — Tobyhanna, Pennsylvania — Established in 1953
21. Scranton Army Ammunition Plant — Scranton, Pennsylvania — Established in 1953
22. Corpus Christi Army Depot — Corpus Christi, Texas — Established in 1961
23. Letterkenny Munitions Center — Chambersburg, Pennsylvania — Established in 1961

Source: Headquarters, Army Materiel Command

ficient workload. The other services are engaging in similar efforts, but ultimately the Defense Department must optimize all capabilities across the services based on efficiency and cost effectiveness.

The AOIB has maximized continuous process improvement efforts to produce the best value. Programs such as Lean Six Sigma and Value Engineering continue to reduce costs and improve equipment repair cycle times, resulting in better readiness rates at lower costs. Ongoing forums among the various industrial base installations provide the opportunity to harvest best business practices and share lessons learned.

Leveraging Commercial Capabilities. The AOIB and commercial industrial sectors are working more closely together to leverage the capabilities of both. For instance, the sustainment and acquisition communities are working closely to promote Public–Private Partnerships (PPP)—opportunities to maximize capabilities, share investments and collaborate on best business practices that will help stabilize rates and reduce costs. In Fiscal Year 2013 there were almost 300 such partnerships that generated more than $200 million in revenue for the AOIB.

The AOIB is also using contracting as a means to leverage partnership opportunities. For example, contractors that compete to run ammunition industrial operations are required to provide plans on how they would optimize the facility through efforts such as consolidation, reducing excess capacity and making capital investments. Several ammunition plants have already successfully incorporated this strategy. At Lake City Army Ammunition Plant in Independence, Missouri, the contractor's efficiencies could produce $100 million in capital investments over the life of the

The Industrial Base Workforce—America's Credentials

The heart of the Army's industrial sector is not the buildings or machinery but the thousands of dedicated, hard-working artisans—military and civilian—who are committed to providing the best possible support.

Ray Carmichael and Michael Griggs, both small-arms repairers from Anniston Army Depot in Alabama, recently returned from Afghanistan, where they not only repaired weapons for deployed Soldiers but also provided classes to military small-arms repairmen around the country.*

Often two generations are working at the same facility. Frank Schradeya, a planner for Field Service Gages, has been working at Rock Island Arsenal, Illinois, for more than 35 years. His son, Deric Schradeya, is now a Journeyman Machinist at the arsenal. There are many other examples in government industrial facilities across the United States of family members carrying on the tradition of support from generation to generation. They are members of communities around the country, dedicating their tremendous skills and talents to building and maintaining equipment used by American men and women in uniform around the world.**

* Jennifer Bacchus, "ANAD [Anniston Army Depot] on the Front Lines: M2A1 Repairs Performed for Soldiers in Southwest Asia," 28 March 2013.

** "KWQC Pre-coverage of RIA [Rock Island Arsenal] 150th Anniversary," 3 July 2012.

contract. In addition, with the anticipated reduction in government requirements for small-arms ammunition, the contract will allow the contractor to use excess capacity to produce commercial ammunition, ensuring a "warm base" and a trained workforce that can surge production during contingencies.

Preparing the Industrial Base Leadership

The Army recognized that many senior leaders did not have the business experience that was typical of other leaders in industry. In 2003, the Army established the Depot and Arsenal Executive Leadership Program (DAELP). DAELP is administered by the Institute for Defense and Business (IDB) and delivered in partnership with the Kenan–Flagler Business School at the University of North Carolina to provide an executive overview of key functional, analytical and business concepts required for effective leadership of large complex organizations. The curriculum capitalizes on multiple delivery methods (traditional classroom teaching in residence, online learning, business study tours and corporate residencies) to provide an exceptional learning experience. Initially designed for leaders from U.S. Army Materiel Command, DAELP has expanded in scope and stature.

DAELP participants now include uniformed military commanders and leaders, government civilian executives from all military services and select government agencies to include the Departments of Defense and Homeland Security.

The Path Forward

> *As these lower funding levels continue, we are increasingly concerned about the health of the industrial base and the subsequent consequences for the Army.*
>
> General Raymond T. Odierno,
> Chief of Staff, Army[4]

Sequestration places the health of the Army Organic Industrial Base at risk. The vulnerabilities include skyrocketing unit and overhead costs as a result of shrinking demand, the migration of trained and experienced workers to other industries, the loss of highly specialized manufacturing skills and the demise of small defense businesses. The initial impacts of sequestration have already affected readiness and modernization through deferred equipment reset and maintenance; civilian furlough; termination, delay or restructuring modernization programs; and cuts to science and technology investments. The compounding effect will create deep capability gaps that cannot be resolved within a reasonable time frame.

The Army needs timely and predictable funding for the comprehensive Army Organic Industrial Base Strategic Plan. This will allow the AOIB to leverage best business practices; maintain an experienced, skilled and specialized workforce; make prudent investments in modern, safe and capable infrastructure and equipment; and ultimately provide the capability for the joint force.

A healthy Army Organic Industrial Base has the depth, breadth and diversity needed to support the joint warfighter—today and in the future—in an uncertain, complex national security environment.

[4] Odierno, The Impacts of Sequestration on National Defense.