



U.S. Manufacturing and Public Policy Conference:

**“What the Next President Should
Do About U.S. Manufacturing:
An Agenda for the First 100 Days”**
National Press Club, September 14, 2016



**Policy Recommendations to Strengthen
Our Defense Industrial Base**

Written by: Brigadier General John Adams, USA (Retired)

“... (T)he defense industry is second only to our people...our defense industry is what makes us a great military power.”¹

Introduction

In times of crisis, our nation’s security rests on a military armed with the technology, weapons systems, and equipment needed to defend American lives and interests.

Over the decades since the end of the Cold War, our defense industrial base has become smaller and more brittle, a result of declining budgets, a prolonged recession, a shift in resources to current operations of the War on Terror and Extremism, changing procurement strategies (notably the shift from MIL-SPEC to COTS), dispersion of supply chains, and reductions in defense research and development that creates our future military superiority over potential rivals.

As a result, in a situation reminiscent of our lack of preparedness before World War II, our nation once again finds itself potentially ill-prepared for a future security environment characterized by rapid changes in technology and growing geopolitical competition from large nation states whose ideologies and policies and objectives are contrary to our own.

Our nation’s military and political leaders must act now to sustain and rebuild a strong defense industrial base—this is a fundamental element of our national security now and in the future. Deterrence is built on

¹ Ashton B. Carter, quoted in Emilie Rutherford, “Carter: DOD to Protect Vital Industry Skillsets in Next Year’s Budget.” *Defense Daily* (May 31, 2012) Available at: <http://www.defensedaily.com/free/17916.html>.

a foundation of demonstrated capabilities—in operations and in production. Offshoring and outsourcing are creating new vulnerabilities that undermine our capability to deter would-be foes.

It would be a grave mistake if the United States were to become dependent on potentially hostile foreign governments for its defense needs. Just as we demand strategic thinking about the problems confronting our armed forces on current and future battlefields, we demand strategic thinking about the problems confronting the defense industrial base.

We need a defense industrial base strategy that serves our most important security requirements. Not only must we produce superior weaponry for today's warriors, we must preserve our technological edge which increasingly is key to our superiority to ensure that future generations can rely on America's ability to fully meet its commitments as these arise.

The Bottom Line

The health of our defense industrial base is inextricably linked to our freedom and independence. The time to act is now – to head off destructive dependencies on foreign suppliers before they occur or get worse. It is in our national security interest to promptly and aggressively address the threats to our defense industrial base. To support the U.S. defense industrial base and our ability to respond to conflict and disasters, we must pursue all available means to maintain and expand a healthy defense industrial base.

Key Observations

- Global technological convergence has taken place as more countries have caught up in areas where the U.S. previously enjoyed clear advantages, building from the ground up to achieve technologically advanced export sectors that are eclipsing the U.S.²
- U.S. companies have steadily moved large chunks of their manufacturing supply chains offshore, a trend that started in the 1980s as a way to take advantage of cheaper labor costs in newly industrializing countries. U.S. government policies continue to offer tax-and revenue-based incentives for domestic industry to offshore manufacturing jobs. Other countries' industrial policies, unfair trade practices and competition from State-Owned Entities (SOEs), notably in China and Russia, have created an unfair playing field for our defense industrial base

² Dan Breznitz, (2007). *Innovation and the State: Political Choice and Strategies for Growth in Israel, Taiwan, and Ireland*, New Haven: Yale University Press.

manufacturers. In the 2000s, offshoring culminated in the relocation of high-tech manufacturing to emerging markets in order to take advantage of the special credits, grants, and subsidies these states offered as well as to gain proximity and greater access to other manufacturing facilities or large and growing consumer markets. Indeed, the U.S. now runs a more than \$120 billion annual trade deficit with China in Advanced Technology Products.

- U.S. policy responses to global economic challenges and associated growing pains have been awkward, insufficient, and often counter-productive. A largely unchallenged belief in neo-classical economics (rife with outdated assumptions) has resulted in muted responses to the gradual hollowing out of America's manufacturing base. Although there have been voices arguing for a more interventionist and involved approach to nurture and protect manufacturing, the government response has tended to be ambivalent, to say the least.

Of particular note is the current attack on our steel industry by imports of dumped and subsidized steel from China and others. Steel is an essential material for America's national security infrastructure. It is used in the construction of everything from ships, tanks, and armaments to bridges, our electrical grid, and energy infrastructure. Continued imports of subsidized foreign steel erode the U.S. steel industry's position as a fundamental building block of our nation's defense industrial base.

Geostrategic rivals, notably China, are practicing a 21st century form of mercantilist economic warfare in the steel sector, pushing U.S. steel manufacturers and their domestic supply chains, to the brink of irreparable damage. Left unchecked, plant closures, mass layoffs, and the loss of key technology and manufacturing know-how will continue. China's largely state-owned steel companies are using predatory trade practices in violation of our fair trade laws, and in doing so weaken our domestic steel industry. China's top steel producers, largely controlled by the communist regime in Beijing, are flooding international markets with subsidized steel.

The potential loss of domestic steelmaking capability signals a dangerous dependence on potentially hostile foreign governments to supply the defense and critical infrastructure products necessary to equip our military, respond to disasters, and modernize our increasingly fragile infrastructure.

The forces of globalization may be irreversible. However, it is not too late for businesses to stop the trend of putting short-term profit maximization ahead of long-term competitiveness. Lower production costs based on outsourcing and offshoring may lead to higher profits in the short-run, but they will continue to undermine our national security interests by diminishing productive capacity, transferring technology and putting at risk access to materials and supplies. In the long-run, this trend yields few winners among U.S. stakeholders – including management, workers, and the public at large. Our nation's leaders should use all available legal and legislative tools to safeguard our domestic defense industrial base, ensuring that

our industry will remain a strong and ready foundation for our national security and protection of critical infrastructure.

We must identify and promptly address the vulnerabilities to our defense industrial base before we lose our core manufacturing capabilities – including the skilled workforce that is its backbone – especially to our most dangerous long-term strategic competitors like China and Russia. We must head off increasing dependencies on foreign suppliers before they become irreversible. Rebuilding our defense industrial base in a crisis remains an unrealistic option that risks supplies of our most important defense equipment and strategic materials at a time we need them most.

Recommendations

Our current strategic vulnerabilities demand realistic, achievable, urgently applied policy solutions. Government and industry must play mutually supportive roles in crafting and implementing these policies. Some of the solutions require enforcement of current laws and regulations; certain solutions require detailed coordination between government entities and industry stakeholders. To ensure that the defense industrial base is, first, protected from further decline, and second, creates the longer term conditions for recovery and expansion of our domestic military industry, we recommend:

Near-term Actions:

- **Create new, and consistently apply existing, legislative and administrative measures that explicitly give preference to U.S. domestic suppliers in the defense industry.** When it pertains to defense products, “Made in America” is in our national security interest. The Jones Act, for example, ensures United States Navy or other sea services acquire warships or other vessels built in U.S. shipyards. A similar measure could usefully protect other platforms and systems key to sustaining our military advantages. Chief among legislative options are those that have long aimed to ensure that important defense capabilities remained secure and available for America’s armed forces, including domestic source preferences such as those that apply to the steel and titanium industries under the Specialty Metals Clause. Competition to reduce costs and achieve efficiency is always welcome – but only as long as the playing field is level. Here, the roles of both the Executive Branch and Congress are important to aggressively enforce regulations:
 - *Trade Enforcement.* We need proactive enforcement of U.S. trade remedy laws before mass layoffs and plant closures occur within our defense industrial base. We must provide resources necessary for the Department of Commerce to expedite trade cases. We must also fully utilize the tools provided in both the *Leveling the Playing Field Act* and

the *Trade Facilitation and Trade Enforcement Act* to ensure that trade enforcement is efficient, strong, and not circumvented after the fact.

- *Buy America.* We must strengthen federal and state domestic sourcing preferences to ensure that U.S. tax dollars are used to procure high-quality American-made steel and manufactured goods.
- *Safeguard Actions.* The White House should consider and implement as necessary more existing legal authorities to stop the flow of devastating import surges that threaten our economy and U.S. national security.
- *Global Overcapacity of Strategic Materials.* We must secure binding commitments from foreign countries to reduce global overcapacity through bilateral and multilateral forums like the U.S.—China Strategic and Economic Dialogue (S&ED), Joint Commission on Commerce and Trade (JCCT) and World Trade Organization (WTO) meetings.
 - We should work with Mexico, Canada, the EU, and other allies to press countries with large key materials' overcapacity (notably steel) to make needed reforms.
 - If countries like China refuse to cooperate, we should impose broad-based import restraints to prevent further damage to our economy.
- *SOEs.* Develop and implement enforceable rules to ensure that state-owned entities operate based on commercial considerations. Meaningful disciplines are necessary to deter and, if necessary, counter anticompetitive behavior.
- **Change the current incentives that lead industry to offshore defense industrial base manufacturing.** This includes decreasing or eliminating tax- and revenue-based incentives to move defense-relevant manufacturing offshore. At the same time, we should increase the advantages to industry in preserving American defense industrial base manufacturing in the United States. The decline of the domestic defense industrial base is inextricably linked to the overall decline in American manufacturing. Failure to address the offshoring of our defense industrial base puts our national security at risk, and contributes to the hollowing out of one of our most important strategic assets: our ability to produce reliable weapons and equipment for our armed forces.
- **Create incentives for industry and government to apply networked operations to modernize our defense supply chains.** Just as networked operations characterize our

military operations worldwide, we must provide near-real-time communications between prime contractors and the supply chains they depend upon to ensure the health and responsiveness of our supply chains that support increasingly complex weapons systems. Networked supply chain operations can capture the prioritization systematically, as well as incorporate solutions to address the risks of substandard or counterfeit parts. Relying on *ad hoc* and manual solutions to these problems is not an effective option.

- **Implement effective controls on the defense supply chains to reduce the risks of counterfeit and defective parts, especially in advanced electronic systems.** In its February 2016 report to Congress, the Government Accountability Office (GAO) estimated that in fiscal year 2014, the Defense Department managed over 4.7 million parts that are used in communications and weapons systems worth more than \$96 billion. “The existence of counterfeit parts in the DOD supply chain can...delay missions, affect the integrity of systems, and ultimately endanger the lives of service members.” We know that counterfeit parts enter our defense supply chains, constituting a cybersecurity vulnerability. We also know that counterfeit electronic parts, notably semi-conductors, are actually malware that can be programmed by the manufacturer for malicious purposes. Moreover, GAO auditors suspect that cases of counterfeit parts are underreported. Although the GAO has documented these vulnerabilities, and recommended that DOD better stipulate “clarifying criteria” for those parts, it is past time to implement effective controls.
- **Identify potential supply chain chokepoints and plan to prevent disruptions.** The Pentagon’s defense industrial base strategy attempts to map defense supply chains, but fails to address the critical task of restoring American control over the supply chains for critical defense items, such as high-tech batteries or semi-conductors. DOD’s past efforts (e.g., the Sector-by-Sector, Tier-by-Tier [S2T2] program) offered great promise to DOD and industry managers alike, by mapping the supply chain at levels below that of the prime defense contractors. This allowed DOD and industry managers to focus on and document the important role that lower tier defense industrial base firms play in sustaining U.S. defense supply chains. However, these efforts met great resistance from industry, which all-too-often viewed attempts to gain visibility into the lower tier supply chains as an expensive and unnecessary intrusion. Moreover, although these mapping efforts are an important management tool, they cannot be expected to inform managers about how to prioritize efforts or address recurring problems such as non-conforming or counterfeit products. In addition to mapping the lower tiers of the supply chain, there is an urgent need to use the data to determine the scope of foreign control over critical supply chains, as well as the risk of disruption from natural disasters. Foreign control of defense supply chains poses vulnerabilities for American defense capabilities, especially in times of crisis, potentially enabling foreign suppliers to leverage supply in return for concessions. Moreover, supply chain disruptions

are not confined to foreign exploitation and we need to understand the details and dynamics of the most critical supply chains to plan for potential disruptions in advance, not waiting for the next Fukushima disaster or coup in a supplier nation to necessitate urgent and perhaps very difficult countermeasures.

- **Maintain China’s non-market economy (NME) status.** As China is our strongest potential competitor and has taken state-directed measures to seize control of several critical defense markets (notably, steel, rare earths, and semi-conductors), we should maintain China’s NME status until its government makes permanent reforms that free its grip over the Chinese economy. Any loosening of this designation would severely undercut U.S. antidumping laws, adding to the steel import surge and resulting in additional job losses and plant closures in this important strategic industry.
- **Formalize planning for the defense industrial base in U.S. national strategy.** We should manage the defense industrial base with as much care as we manage manning, training, readiness, and operational performance of our armed services. We should include specific steps to strengthen the defense industrial base in the U.S. National Military Strategy, National Security Strategy and Quadrennial Defense Review Process. To be sure, past iterations of these key strategic documents have addressed – albeit too briefly – the defense industrial base. Moreover, the U.S. government and American industry already are undertaking measures – albeit insufficient – to mitigate risks. It is vital that we accord higher priority to these efforts, to focus on supporting and strengthening the most important and potentially vulnerable sectors.

Strategic and Long-term Measures:

- **Build consensus across government, industry, and the military to address the challenges to the defense industrial base.** As important as it is to analyze and understand particular risks to the industrial base or the desirability of alternative mitigation strategies, creating consensus about the nature of the challenges and choices of options to remedy them is just as important a factor. No effective collaboration between industry and government is feasible without it. The most important steps to address supply chain issues will require the concerted efforts of defense prime contractors and original equipment manufacturers (OEMs) working in tandem with government to solve problems. Defense-related firms depend upon increasingly global and complex supply chains. We, in turn, rely on their systems integration skills to manage problems. Government and industry managers need effective tools to detect and try to prevent risks to the supply chain, to determine the scope of the problems, and to address particular problems such as conformance and counterfeit issues aggressively. As pertains

to defense steel requirements, the U.S. Navy already has in place periodic consultations with steel manufacturers to provide a snapshot of steel production forecasts, so that industry can better prepare for future production requirements. This process should be formalized at the DoD level.

- **Focus defense industrial base legislation on national security rather than on satisfying constituencies.** Congress must ensure that our approach to strengthening the defense industrial base includes making the hard choices that weigh against natural inclinations to favor constituencies over performance and the national interest. At the national level, the task is to ensure that we budget and plan for enduring national security capabilities and sustain an industrial base necessary to support them. Members of Congress must carefully tend to their responsibilities to preserve and craft legislation that supports a broadly representative defense industrial base strategy.
- **Implement defense industrial base planning at the whole-of-government level.** The health of the defense industrial base also must not be solely the business of the Department of Defense (DOD). As part of American national strategy, assuring the health of the defense industrial base requires the coordinated efforts of a number of Executive departments and agencies, including *inter alia* the Departments of State, Treasury, Commerce, and Homeland Security. We need to establish better habits of transparency and routine cooperation among government agencies and between government and industry if we are to be successful.
- **Implement collaborative programs among government, industry, and academic research institutions to sustain specialized skill sets – particularly those necessary for advanced technologies – for the defense industry.** Measures aimed at the health of the industrial base cannot be limited to the production of inputs or hardware. Although we can be encouraged by DOD’s recent progress in this area, there is much more to do. As then-Under Secretary of Defense Carter said in May 2012, the Pentagon’s focus on selected skill sets is “an example of something we didn’t do in [FY] ’13... [but] as we put together the [FY] ’14 budget ...[we] definitely want to look at those holes [and] make those kind of investments.”³ Collaboration between government, industry, and academia has had a leading role in the development of America’s 21st century economy, as well as its world-class defense industrial base. However, as globalization pulls defense supply chains out of the United States, it also pulls with it the building blocks of research, development, and advanced manufacturing processes. Reversing this trend will be difficult, but impossible without the concerted efforts of government, industry, and academic research institutions.

³ Ashton B. Carter, quoted in Emilie Rutherford, “Carter: DOD to Protect Vital Industry Skillsets in Next Year’s Budget.” *Defense Daily* (May 31, 2012) Available at: <http://www.defensedaily.com/free/17916.html>.

- **Secure control of key natural resources upon which our 21st century military depends.** Another important issue that demands attention is the reliance on foreign suppliers for natural resources, including rare earth elements that are essential components of modern military technology. As the U.S. has increasingly withdrawn from the mining and extracting sector for many of these elements, government and industry must address the lack of domestic capacity through a combination of stockpiling, renewed extraction efforts, recycling, and identifying alternate materials.
- **Reinvest in American infrastructure and particularly increase long-term federal investment in high-technology advanced research and manufacturing capabilities.** In the aftermath of World War II and the advent of the Cold War, American Administrations and Congress put in place a national security system which established (and funded) advanced research and development as an enduring priority. Today's technology challenges call for a similar bipartisan approach. Congress must take the lead in developing incentives for U.S. firms in the form of long-term federal investment in high-technology industries. The distinguishing attribute of America's defense industry is technological innovation. The effects of globalization, especially as it accelerates offshoring and outsourcing of critical defense technologies, risks depriving American industry of the capacity to design and commercialize emerging defense technologies. This capacity to adapt and develop new technologies is the American defense industry's most precious commodity. Congressional funding to develop and implement advanced process technologies can help ensure that America's armed forces dominate the future battlefield.

In summary, we must head off dependencies on foreign defense suppliers before they occur. Many of our most important defense supply chains are now at risk of manipulation by strategic competitors, or disruption from foreign financial crises and natural disasters. Rebuilding our domestic defense industrial base in a crisis remains an unrealistic option that risks supply of our most important strategic materials at a time we need them most. The U.S. government and industry are aware of these problems, but inadequately addressed, just as with our steel industry, these problems constitute significant risks to our readiness for future conflict. We cannot afford to relinquish our defense capability because the problem is too hard to address. If we fail to act, we will find ourselves at the mercy of foreign suppliers for the weapons and equipment we need to keep this country safe. We must not simply observe the trends, and mitigate them on the margins; we need to chart a course to ensure that U.S. national security will always be our first priority, and that our defense industrial base will retain the necessary capacity in the decades to come.

*Ours is a business of anticipation, not reaction. There is nothing magical about it. To meet tomorrow's crisis or conflict requires continuous investment today to ensure we can deliver capability critical to our nation and economic security.*⁴

Endorsed by:

Scott Paul, *President, Alliance for American Manufacturing*

This event is intended to serve as a voter education event. All candidates received invitations to participate in this event. The opinions expressed by any speaker, including candidates or their representatives, do not represent the views of Indiana University. Indiana University does not endorse or provide resources to support or oppose particular candidates for political office or political parties.

⁴ Mike Petters (President and CEO of Huntington Ingalls Industries). "How Long Would It Take the Shipbuilding Industry to Grow Capacity and Throughput if the Nation Faced a Naval Crisis or Conflict?" *Information Dissemination* (online blog, June 5, 2012). Available at: http://www.huntingtoningalls.com/about/docs/idblog_05june12.pdf.