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Title

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Permalink

<https://escholarship.org/uc/item/9140j98k>

Journal

SITC Research Briefs, Series 9(2017-12)

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Publication Date

2017-02-28

RESEARCH BRIEF

2017-12 January 2017

US-China Competition, the Third Offset Strategy, and Implications for the Global Arms Industry

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As tensions mount between China and the United States in the western Pacific, countering China's growing anti-access/area denial (A2/AD) capabilities has been a major focus of the Pentagon's current Third Offset Strategy, which is designed to leverage US advantages in new and emerging critical technology areas. The brief explores the implications of a push for cutting-edge military technology capabilities for both the US defense industry and the global arms industry and concludes that the United States might have to go it alone, at least in the short term.

The Study of Innovation and Technology in China (SITC) is a project of the University of California Institute on Global Conflict and Cooperation. SITC Research Briefs provide analysis and recommendations based on the work of project participants. Author's views are their own.

This material is based upon work supported by, or in part by, the US Army Research Laboratory and the US Army Research Office through the Minerva Initiative under grant #W911NF-09-1-0081. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the US Army Research Office.

The US-China rivalry in the western Pacific is increasingly being played out in a game of military chicken: China is trying to gain the means by which to prevent US forces (and, by extension, its regional allies and partners) from entering or operating with impunity within the East and South China seas, while the United States is endeavoring to counter such capabilities. China's efforts have been dubbed "anti-access/area denial" (A2/AD) capabilities. The US response has been AirSea Battle (ASB), or in its most recent incarnation, the "Joint Concept for Access and Maneuver in the Global Commons," or JAM-GC.

Countering China's growing A2/AD capabilities and technological issues has been largely the focus of the Pentagon's current "Third Offset Strategy." The Third Offset Strategy is about leveraging US advantages in new and emerging critical technology areas to overcome supposedly weakening US advantages in more traditional areas of conventional military power. In the present situation, this is about the United States losing its "near-monopoly" in "reconnaissance-precision strike," as potential adversaries are now "fielding their own reconnaissance-strike networks to challenge" US power projection capabilities.¹ According to analysts such as Robert Martinage and Peter Dombrowski, the US military is increasingly vulnerable to long-range strike, modern integrated air-defense systems, more capable underwater systems, and attacks in the space and cyber domains.² Consequently, the Third Offset Strategy is about both capabilities and specific enabling technologies. These include "the most cutting-edge technologies and systems,"

such as "robotics, autonomous systems, miniaturization, big data, and advanced manufacturing, including 3-D printing."³ Other technologies or specific systems include hypersonics, directed-energy weapons, electromagnetic rail guns, and naval mines.⁴

One of the critical areas where the challenges and opportunities embodied in the Third Offset Strategy will be tested is China—and its growing capacities for A2/AD. With regard to the Asia-Pacific, the Third Offset Strategy is, at least implicitly, first and foremost about countering China's supposedly growing abilities to "no-go" sanctuaries in the far western Pacific Ocean, and particularly in and around the East and South China seas. In this sense, the Third Offset Strategy is about creating the enabling technologies behind ASB/JAM-GC.

As the United States searches for innovative solutions to support its Third Offset Strategy, the role of the defense industry, particularly on a global scale, cannot be stressed enough. It is, of course, the US defense industry's supposed responsibility to the US military to deliver Third Offset capabilities either directly (through expressly military-oriented research and development) or indirectly (by adapting and leveraging militarily relevant dual-use technologies). Implications for the US military-industrial complex are self-evident, as it will likely constitute the key development and transmission mechanism. The question is, will it be up to the task?

A second, and much more difficult question to answer, is whether or not US allies in Europe and Asia will be able to contribute to the development of these cutting-edge capabilities. In

particular, how might Asian-Pacific allies and partners be used in any Third Offset Strategy? Would they feel pressured to adopt similar capabilities or technologies initiatives, in order to keep up with US forces and remain effective partners? Implementing such a strategy would require substantial investments in next-generation technologies, particularly robotics and automation, long-range conventional strike (including stealth systems), sensors, and systems for networking. And yet it is hard to see how regional allies could afford such initiatives or readjust their military modernization priorities, especially if the United States fails to provide decisive leadership from the onset.⁵

With regard to the global armaments industry, the United States has an obvious interest in trying to convince its allies and partners—in Europe, Asia, and the Middle East, especially Israel—to pursue third-offset technologies and capabilities in a collaborative fashion. Leveraging breakthroughs in other countries' defense and high-technology research bases would make the task of implementing the Third Offset Strategy much easier. At the same time, this would bring these countries more directly into the emerging US-China strategic competition.

The challenge here is two-fold. First, while many of its allies may be keen to work with the United States on building capacity, these states have limited resources and technology bases to support such a cutting-edge technology venture. With regard to third-offset technologies in particular, one of the major impediments facing much of the Western defense industry is the need to continually en-

1 Robert Martinage, *Toward a New Offset Strategy: Exploiting US Long-Term Advantages to Restore US Global Power Project Capability* (Washington, DC: Center for Strategic and Budgetary Assessments, 2014), iv.

2 Peter Dombrowski, *America's Third Offset Strategy: New Military Technologies and Implications for the Asia Pacific*, RSIS Policy Report (Singapore: S. Rajaratnam School of International Studies, June 2015), 5–6.

3 Dombrowski, *America's Third Offset Strategy*, 5.

4 Martinage, *Toward a New Offset Strategy*, vi–vii.

5 Van Jackson, "The Pentagon's Third Offset Strategy: What US Allies and Partners Need to Know," *Diplomat*, April 28, 2015.

courage strategic innovation in military-related research and development (R&D). Much of this problem is fiscal, particularly with regard to key allies of the United States in Western Europe and Japan. This bloc has faced a severe, decades-long shortage of resources for defense R&D. Such funding shortfalls have had a significant impact on individual nations' abilities to engage in disruptive strategic innovation when it comes to military programs. The types of disruptive technologies found in emerging weapons systems—and especially those relating to third-offset capabilities—are increasingly too expensive for most countries to develop and integrate into their militaries. Consequently, the center of defense innovation is increasingly shrinking, and to just one country—the United States.

Therefore, the ability of allied states to contribute to the Third Offset Strategy could be quite limited. In particular, Europe's relative decline as a center of defense innovation is evident in the absence of new cutting-edge armaments programs. Aside from a handful of manufacturing projects (for example, the Meteor air-to-air missile, air-independent propulsion for diesel-electric submarines), there is little novel or groundbreaking work going on in the European defense industry. European military R&D spending has fallen significantly over the past decade, from EUR 10.2 billion in 2006 to EUR 7.2 billion in 2012 (rebounding slightly to EUR 8.3 billion in 2014).⁶ Innovation in Japan's defense industry is similarly affected by stagnant spending.

Second—and this is perhaps the single greatest problem for the United States when it comes to harnessing the global arms industry with regard to the US-China strategic competition—most US allies and partnering countries simply do not factor

this competition into their national decision-making when it comes to their arms industries. There is no evidence that any US-China competitive strategy is influencing the arms development and production decision-making of US-friendly countries. Instead, their defense-industrial goals and aspirations are driven by internal factors. For example, in countries like Japan, South Korea, and India, technonationalist impulses—the drive for self-sufficiency in armaments as a strategic objective, serving not only national defense but also political and economic development—has had much influence over defense-industrial decision-making.⁷

In addition, many countries—particularly European countries, and perhaps Israel as well—do not appear keen to be drawn into this strategic competition. In fact, many leading non-US armaments manufacturers—particularly those in Western Europe but also in places like Japan, Korea, and Singapore—have so far shown little interest in collaborating with the US defense industry when it comes to third-offset capabilities. They may simply wish not to antagonize China (a key economic partner or customer, especially for their commercial high-technology products), or they may feel that such a rivalry is not beneficial for their own national security or for stability in general in the Asia-Pacific.

In short, the rise of China and the emergence of a US-Chinese strategic competition may be present as a driver, but if so, it is decidedly a lesser one. It is difficult to see how any US-China competitive strategies process, or even Third Offset initiatives, affect these countries' current strategic planning when it comes to defense R&D and armaments production.

Even the putative “globalization of the armaments industry” seems to

have had little effect on strategic policymaking. A quarter-century ago, following the collapse of Communism and the end of the Cold War, it appeared that the world's defense industry was undergoing a major reformation and restructuring along the lines of a more globally open and integrated process of developing, manufacturing, and marketing arms. As the costs of new-generation military programs grew, cross-border cooperation made increasing economic sense. Against such a backdrop, the globalization of the defense industry seemed inevitable. As the global arms industry became smaller and more concentrated, and as defense firms, with their governments' approval, increasingly went abroad in search of markets, risk-sharing partners, and new business opportunities, it appeared likely that the defense industry would become more integrated globally, as more armaments production—from R&D to manufacturing and marketing—was carried out transnationally. This has occurred to some extent.

The bulk of the world's arms-producing infrastructure has remained remarkably unchanged, however. Considerable change has occurred within some of the global arms industry—particularly in Western Europe, where much of the defense sector has become regionalized in terms of production or ownership. However, the US defense industrial base remains much the same as it was immediately after the Cold War: a highly insular sector that dominates the world's arms market through the force of massive US defense spending and arms exports. What is even more remarkable is that much of the world's defense industry outside of Europe and the United States has continued to emphasize autarky in defense manufacturing, despite the

6 Data from the European Defense Agency's website.

7 Richard A. Bitzinger, “Defense Industries in Asia and the Technonationalist Impulse,” *Contemporary Security Policy*, December 2015.

enormous costs. In general, looking back over the past few decades, it is apparent that the globalization of armaments production has not been nearly as transformative as once predicted.

CONCLUSIONS

Should the US military wish to aggressively pursue a Third Offset Strategy in order to deal with a Chinese A2/AD contingency, it will likely have to do so alone, at least for the next several years, if not decades. Only the United States has the strategic requirements, particularly the long lines of communication stretching from the west coast of the United States, the resources, and sufficiently advanced technological capacities relative to its allies to engage in such a capabilities/technologies approach. The United States will likely have to not

only take the lead in crafting an international collaborative approach to the Third Offset Strategy, it will also have to undertake the lion's share of its funding if it wants this initiative to be proliferated among its allies. Allied states also have to evolve in terms of their defense industries, shifting away from platform-building in favor of more transformative technologies and systems.

This being said, if the United States were to take the lead in promoting international initiatives toward developing third-offset capabilities, it might find a receptive audience among its key allies and partners. Certainly many of these potential players could contribute substantially in niche areas. If defense and high-technology sectors in Europe, Japan, South Korea, and Israel were to perceive that tangible benefits could accrue from such collaboration—in

terms of jobs, technology development, and new revenue streams—then they might be motivated to sign on.

A US-China strategic competition may someday have a significant impact on the global arms industry, but it has not done so yet. And unless the United States can find innovative ways to interest its industrial partners in the West to join it in exploiting possible third-offset technologies, it may never do so.

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