

Alliance Requirements Roadmap Series

Third Offset Strategy and Chinese A2/AD Capabilities

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ABOUT THE AUTHOR

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The views expressed in this report are personal and the author's alone. They are solely responsible for any errors in fact, analysis, or omission.

ABOUT THE SERIES

To build a foundation of subject matter expertise for our study, "Dynamic Balance: An Alliance Requirements Roadmap for the Asia-Pacific Region," CNAS commissioned this Alliance Requirements Roadmap essay series from experts in third offset strategic thinking, Asian-Pacific maritime security issues, and on partner countries in Asia. These essays were the focus of a December 2015 experts' workshop, where CNAS investigators and leaders in the field discussed in depth the tools the United States, Japan, and its regional partners would need to best shape the future security environment of the Asia-Pacific. These conference papers were crucial to our analysis and have done much to shape the study's findings.

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ABOUT THE ASIA-PACIFIC SECURITY PROGRAM

The Asia-Pacific Security program seeks to inform the exercise of U.S. leadership in Asia by analyzing how the United States can rebalance its priorities; shape a rules-based regional order; modernize traditional alliances; build the capacity of new partners; and strengthen multilateral institutions. From exploring rising maritime tensions in the region to crafting ways to renew key alliances and partnerships to articulating strategies to extend and enhance America's influence, the program leverages the diverse experience and background of its team, deep relationships in the region and in Washington, and CNAS' convening power to shape and elevate the conversation on U.S. policy across a changing Asia.

The "third offset" strategy, like many recent initiatives from the Pentagon, is long on ambition and short on details. With regards to the Asia-Pacific, it would probably be used mostly to deal with the anti-access/area denial (A2/AD) conundrum posed by China. In fact, 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, particularly in and around the East and South China Seas. In this sense, therefore, the third offset is about creating the enabling technologies behind AirSea Battle (ASB), now known as the Joint Concept for Access and Maneuver in the Global Commons (JAM-GC).

The third offset strategy is about leveraging U.S. advantages in new and emerging critical technology areas in order to overcome supposedly weakening U.S. advantages in more "traditional" areas of conventional military power. In the present situation, this is about the United States losing its "nearmonopoly" in "reconnaissance-precision strike," as potential adversaries are now "fielding their own reconnaissance-strike networks to challenge" U.S. power projection capabilities. According to analysts, including Robert Martinage and Peter Dombrowski, the U.S. 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. Consequently, the third offset strategy is both about capabilities (such as "resilient basing," the "suppression/destruction of enemy air defenses," "increased space resiliency," etc.) and specific enabling technologies (such as "robotics, autonomous systems, miniaturization, big data, and advanced manufacturing, including 3-D printing"). Other technologies or specific weapons systems include hypersonics; directed-energy weapons; electromagnetic rail guns; a new, long-range bomber; and naval mines.

As the U.S. military begins to address the challenges and opportunities created by third offset technologies and strategies, one of the most critical areas where these ideas will be tested is with China and its growing capacities for A2/AD. According to the Center for Strategic and Budgetary Assessments, "Anti-access (A2) strategies aim to prevent U.S. forces from operating from fixed land bases in a theater of operations," while "area-denial (AD) operations aim to prevent the freedom of action of maritime forces operating in the theater." As such, China is trying to gain the means by which to prevent U.S. forces (and, by extension, its regional allies and partners) from entering or operating with impunity within these seas, while the United States endeavors to counter such capabilities.

CHINESE STRATEGIC ADVANTAGES IN THE FAR WESTERN PACIFIC

China's 21st century emergence as a great military power has been undeniably remarkable. Beijing has, for at least a decade-and-a-half, invested considerable resources, in terms of both money and human capital, into building up its armed forces – and this is paying off. The People's Liberation

¹ Robert Martinage, "Toward a New Offset Strategy: Exploiting U.S. Long-Term Advantages to Restore U.S. Global Power Project Capability," (Center for Strategic and Budgetary Assessments, October 27, 2014), iv.

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

³ Dombrowski, "America's Third Offset Strategy," 5–6.

⁴ Martinage, "Toward a New Offset Strategy," vi-vii.

⁵ Andrew F. Krepinevich, "Why AirSea Battle?" (Center for Strategic and Budgetary Assessments, February 19, 2010), 9–10.

Army (PLA) is a much more capable force, in both absolute and relative terms, than it was 20 years ago. This is especially apparent in its navy and air force, which are increasingly capable of projecting both considerable and sustainable power into and over the green waters of the far western Pacific Ocean, and perhaps eventually into the blue waters of the open ocean. In particular, the PLA upgraded the PLA Navy (PLAN) with much more potent maritime strike aircraft (such as the Su-30MKK and the JH-7A), and it is reconstituting the PLA Air Force (PLAAF) as "an air-space defense force structure that can meet the requirements of informationized operations." This modernized and revitalized military force matches, or perhaps is enabled by, a new assertiveness, obstinacy, and obduracy in international affairs. When coupled with the country's long-standing (and perhaps even growing) sense of "victimhood" and the need to "reclaim lost status," the result is a more militarily capable China, perhaps much less inclined to negotiation and compromise. Instead, it may be more prone to use force or the threat of force to achieve its goals.

China possesses several strategic advantages when it comes to A2/AD capabilities. First and foremost, it has the "home field advantage" of the ability to engage in military operations quite close to its national territory. Most of its forces that could be employed for A2/AD operations are already prepositioned on or near the Chinese coast and are therefore more rapidly deployable to likely conflict zones in the East and South China Seas. They are reinforced by military buildups on Chinese-held islands in the regional seas – such as the heavily militarized Woody Island in the Paracel Island chain – and by the recent construction of artificial islands in the Spratlys; at least one of which, Fiery Cross Reef, possesses a 3000-meter airstrip. Additional runways are being constructed on at least two, and possibly three, other islands, which greatly extend the PLA's theoretical range of operations around the South China Sea. If needed, the PLA can easily move men and equipment from the hinterlands closer to coastal areas. In addition, homeland defenses like increasingly sophisticated integrated air defense systems (IADS), can protect land-based forces, such as combat aircraft and missiles.

Further, over the past 15 years or so, the PLA has acquired considerable hardware that boosts its A2/AD capabilities. The PLAN, PLAAF, and PLA Second Artillery Corp, which controls China's missile forces, particularly benefit from this buildup. The acquisition of new submarines greatly improves area sea-denial capabilities.. These acquisitions include five nuclear-powered attack submarines and nearly three-dozen modern diesel-electric submarines, some of which are reportedly outfitted with systems for air-independent propulsion. A variety of anti-ship cruise missiles (ASCM) and the unique DF-21D anti-ship ballistic missile (ASBM), along with modern sea mines, have also added to China's A2/AD capacities in the far western Pacific. China's recent acquisition of several hundred fourth and fourth-plus generation combat aircraft, as well as the aggressive expansion of the PLA's arsenal of short-, medium-, and intermediate-range ballistic missiles and land-attack cruise missiles (LACM), have endowed the Chinese military with new and improved capabilities for long-range precision strike. These capabilities put U.S. and allied bases in and around the far western Pacific – including Guam, Okinawa, and Taiwan – under new threats. China's air defense systems

⁶ The State Council Information Office of the People's Republic of China, "China's Military Strategy," (Chinese Ministry of National Defense, May 2015), Section IV: Building and Development of China's Armed Forces.

⁷ Evan S. Medeiros, *China's International Behavior: Activism, Opportunism, and Diversification* (Santa Monica, CA: The RAND Corporation, 2009), 10–11.

also greatly improved and expanded in recent years, with the procurement of S-300 (and soon, S-400) surface-to-air missile systems; the PLA is acquiring a ballistic missile defense capacity.

Improvements in PLA C4ISR infrastructure and other advances in military "software" back these hardware developments. These improvements include satellites for communications, reconnaissance, and navigation; unmanned aerial vehicles for surveillance and attack; secure communications and datalinks; and an increasingly digitized command and control system. In particular, China works hard to improve its offensive and defensive cybercapabilities, including computer network attacks, electronic warfare, and the setup "information blockades" of its computer networks. According the U.S. Department of Defense's latest report on Chinese military power, "Chinese offensive cyberspace operations could support A2/AD by targeting critical nodes to disrupt adversary networks throughout the region. PLA researchers advocate the key to seizing 'cyberspace superiority' is to deter or stop an adversary by developing and employing offensive cyberspace capabilities." Finally, China is increasingly keen on the military uses of space, particularly the employment of antisatellite (ASAT) systems to destroy enemy satellites.

U.S. DISADVANTAGES IN THE FAR WESTERN PACIFIC

Correspondingly, the U.S. military faces a number of disadvantages when it comes to projecting power into the far western Pacific. First, it continues to suffer from the centuries-old challenge of the "tyranny of distance." It takes up to three weeks for U.S. naval forces to steam from ports on the West Coast to the South China Sea; forces based in Hawaii take up to 16 days to reach this area. Even Guam – one of the United States' most westerly territories and the site of a considerable buildup of U.S. military forces (including B-1, B-2, and B-52 bombers; nuclear-powered attack submarines; nearly 5,000 U.S. Marines; and possibly an additional aircraft carrier) – is still 1,700 miles from the South China Sea, a three-to-five-day journey away.⁹

Moreover, most of the United States' Asian allies are situated in the wrong places to be of much use in the event of a South China Sea crisis. U.S. naval forces in Yokosuka, Japan, are 1,700 miles away, while Okinawa lies 1,000 miles (or a two-to-three days' journey)¹⁰ Until quite recently, the United States did not have reliable base access to the Philippines, but in 2014, Washington and Manila signed a new Enhanced Defense Cooperation Agreement that allows U.S. troops to rotate into the Philippines for extended periods and for the United States to build and operate military facilities on Philippine bases. Thailand, on the other hand, is farther away geographically, and closer politically to China. The United States has limited access to air and naval bases in Singapore, including a significant logistics facility. However, in the absence of an official alliance agreement, Singapore cannot be counted on in a crisis to be a secure, forward-operating base for U.S. forces.

Finally, it is uncertain how allies and partners would factor into any third offset strategy. Any U.S.-Chinese crisis or clash would almost certainly drag some or all of the United States' Asian-Pacific

⁸ U.S. Department of Defense, "Military and Security Developments Involving the People's Republic of China 2015," Annual Report to Congress, RefID: D-117FA69, (Office of the Secretary of Defense, April 7, 2015), 33.

⁹ The Heritage Foundation, "2015 Index of Military Strength: Asia," http://index.heritage.org/military/2015/chapter/op-environment/asia.

¹⁰ The Heritage Foundation, "2015 Index of Military Strength: Asia."

friends and allies into the fray. South Korea, Japan, Australia, and other U.S. partners in the region have been relatively quiet when it comes to ASB/JAM-GC – in part because they do not possess the full extent of the planned operational details inherent in JAM-GC (which remain classified), and in part because such a doctrine, which potentially entails "deep-strike" missions targeting China, could lead to escalatory situations over which they would have no control. Would the third offset strategy create similar strategic worries for regional allies?

In addition, how would Asian-Pacific allies be used in any third offset strategy? Would they feel pressured to adopt similar capabilities or technology initiatives to keep up with U.S. forces and to 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. Yet it is hard to see how regional allies could afford these or be able to readjust their military modernization priorities, especially if the United States fails to provide decisive leadership and guidance.¹¹

THE THIRD OFFSET STRATEGY: THE WAY FORWARD

Should the U.S. military decide to pursue aggressively 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 U.S. West Coast), the resources, and the sufficiently advanced technological capacities to engage in this type of approach.

In this light, what are the prospects that a third offset strategy will overcome China's A2/AD in the far western Pacific Ocean, especially the South China Sea? Again, to cite Martinage, the United States' "core competencies" in the area of third offset technologies are "unmanned systems and automation, extended-range and low-observable air operations, undersea warfare, and complex system engineering and integration in order to project power differently." ¹²

Therefore, it is permissible to ask, "How is this different from recent strategies, such as Rumsfeld's Force Transformation efforts or ASB?" Perhaps there is a bit more emphasis on robotics and automation, directed-energy weapons, and extra-long precision-strike – e.g. through the employment of hypersonic vehicles or conventionally armed ballistic missiles (Conventional Prompt Global Strike) – but many of these initiatives were already underway long before the third offset was enunciated. Cyber may be the next great battlespace, but most of us already knew that. It is a certainty that the U.S. military is elbow-deep in the planning stages for operations in cyberspace, as indicated by the activation of U.S. Cyber Command in 2010. Meanwhile, other technologies or capabilities often touted under the third offset umbrella – such as the Long-Range Strike Bomber (LRS-B), sea mines, networked expeditionary forces, etc. – seem prosaic and even political in their inclusion. In other words, how much of the third offset strategy is simply a rebranding exercise, or a

¹¹ Van Jackson, "The Pentagon's Third Offset Strategy: What U.S. Allies and Partners Need to Know," The Diplomat, April 28, 2015, http://thediplomat.com/2015/04/the-pentagons-third-offset-strategy-what-us-allies-and-partners-need-to-know/.

¹² Martinage, "Toward a New Offset Strategy," v.

¹³ Benjamin Schreer, "U.S. Conventional Prompt Strike: Potential Implications for the Asia Pacific," RSIS Policy Brief (S. Rajaratnam School of International Studies, June 2015).

case of "new wine" in even newer bottles? Moreover, proponents of the third offset strategy do not help themselves by shrouding their case in such ambiguities as "game-changers," "global surveillance and strike networks," "deterrence by punishment," etc., without supplying details as to how these capabilities would be employed in specific scenarios or, in the case of the latter statement, how such deterrence-by-threat would be made credible.

This leads to another point: If the capabilities or technologies that comprise the Third Offset are *not* particularly new, is it their employment and use that constitute a novel "game-changing" approach? Perhaps; but then, like AirSea Battle, the lack of details as to how these systems would be employed – and in the case of Asian-Pacific operations, how they would be used to counter a Chinese A2/AD strategy – is especially exasperating. Long-range precision-strike, better sensors and improved C4ISR, and advanced long-endurance UAVs would obviously improve US force projection into the far western Pacific, but how specifically would robotics or 3D printing deal with the "tyranny of distance?" If physical presence is still paramount (e.g., freedom of navigation operations) for signaling and deterrence, then there is no substitute for having U.S. forces actually on display in the region. Third Offset technologies may make the U.S. military a more formidable opponent to rising challenges like China, and they may address some of the disadvantages that U.S. forces face in attempting to project power into such regions as the South China Sea; but they do not in and of themselves overcome all of these shortcomings. The United States should certainly leverage its technological advantages to stay ahead of the pack, but it should not think that relying on these alone would compensate for a weakening conventional superiority.