ABSTRACT

The U.S. Department of Defense announced its “Third Offset Strategy” in November 2014. One key aspect of the Third Offset Strategy is the Defense Innovation Initiative—an ambitious “effort to identify and invest in innovative ways to sustain and advance America’s military dominance for the 21st century.” This memo will critique this new technology-centric approach in view of its implications for American allies and adversaries in the Asia Pacific region.

INTRODUCTION

The newly released National Security Strategy (NSS) of the United States confirms the Obama administration’s earlier decision to rebalance U.S. military forces to the Asia Pacific.1 Taken as a whole, the NSS provides a reliable, if somewhat vague, guide to U.S. strategy towards the Asia Pacific at least for the next two years of the Obama administration and potentially far into the future. As the President admits, “not everything [in the NSS] will be completed during my Presidency.”2 If the generalisations of the NSS are read in conjunction with the Third Offset Strategy announced this past fall by then-Secretary of Defense Chuck Hagel, a more detailed picture of America’s strategy for the Asia Pacific emerges. Both the Third Offset Strategy and the NSS are intended to build a solid foundation for future administrations, Democratic or Republican, to construct a durable security order. As such, American allies, friends and even potential adversaries in the Asia Pacific region can and should read the NSS and the emerging literature on the Third Offset Strategy carefully to understand their implications for the emerging regional security dynamic.

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THE THIRD OFFSET STRATEGY

In a speech at the Reagan National Defense Forum on 15 November 2014, Secretary Hagel announced a new plan to “sustain and advance America’s military dominance for the 21st century.” He pledged that the DOD will intensify its efforts to “explore and develop new operational concepts, and new approaches to warfighting, war-gaming and professional military education.” Secretary Hagel also announced the Defense Innovation Initiative (DII) because “DoD no longer holds exclusive access to some of the most cutting-edge technology the way [it] once did.”

Hagel’s entire initiative has come to be known in defence policy circles as the Third Offset Strategy after his predecessor Harold Brown’s term for the “response to the then-perceived threat of an armored assault by the Warsaw Pact forces in central Europe” by using “U.S. technological advantage[s] to offset the quantitative advantage of Soviet forces.” The First Offset Strategy, exemplified by President Eisenhower’s “New Look,” relied on nuclear weapons to make up for the shortfall of men and equipment to face the Warsaw Pact in Europe. But this explicit choice to rely on nuclear strategy and tactical nuclear weapons contributed mightily to the Soviet-American nuclear arms race, encouraged both France and Great Britain to develop their own more-or-less independent nuclear force, and, eventually provoked a backlash that led the U.S. and NATO to invest heavily in conventional arms in Europe to help reduce the necessity of relying on nuclear exchanges. Eventually, Eisenhower’s initial decision paved the way for strategic arms control and the emergence of the controversial Strategic Defense Initiative in the early 1980s.

Harold Brown’s 1970s Offset Strategy helped widen the technological gap between the United States and its allies around the world. Only belatedly were European allies willing to invest in the advanced technologies necessary to operate effectively with the United States — this problem remains today in Afghanistan, Libya and other hot spots where the United States and its European allies have been engaged in joint military operations.

As William Perry has explained, the 1970’s Offset Strategy was not simply about deploying more advanced technologies and more advanced weapons systems, but was rather about increasing the effectiveness of weapons systems by using modern electronics and computers to improve both the situational awareness of warfighters and the ability of military units to communicate. Further, as Ben FitzGerald emphasises, “this technological advantage, funded, built and controlled by the United States, was preserved through a series of export and trade controls, including the Arms Export Control Act, International Traffic in Arms Regulations and the Missile Technology Control Regime that allowed the United States and its allies to provide or deny access to particular technologies as required.”

Dr Ashton Carter has since replaced Secretary Hagel as the Secretary of Defense. There are many reasons to believe that Carter will continue to pursue the Third Offset Strategy. Secretary Hagel had appointed Deputy Secretary of Defense Bob Work to oversee the Defense Innovation Initiative and announced a list of critical technologies that would provide the foundations for the new strategy: Deputy Secretary of Defense Work is not going anywhere anytime soon and has both the longstanding intellectual commitment to using technological solutions for strategic quandaries and the lead for Hagel’s Offset approach within the Pentagon. Far more important, Dr Carter himself is a well-known proponent of advanced technologies. From his earliest publications on the command and control of nuclear weapons, anti-satellite weapons, and ballistic missile defence systems to his more recent service as the Under Secretary of Defense for Acquisition, Technology and Logistics, Dr Carter has supported Pentagon’s pursuit of technological advantages over U.S. adversaries.

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4 For some analysts the original offset strategy was the decision of the Truman administration to rely on nuclear weapons to overcome the Soviet Union then vast advantage in the number of conventional weapons and troops it could field in Central Europe.
Reactions to the Third Offset Strategy

To date, much of the subsequent attention devoted to Secretary Hagel’s speech has focused on his call for an “initiative [that] is an ambitious department-wide effort to identify and invest in innovative ways to sustain and advance America’s military dominance for the 21st century. It will put new resources behind innovation, but also account for today’s fiscal realities — by focusing on investments that will sharpen our military edge even as we contend with fewer resources.”7 Far less has been written about new concepts, wargaming, and defence reforms, although arguably these will be the more influential components of the Third Offset Strategy if Hagel’s vision is followed and implemented. Therefore, this policy brief will focus most closely on the implications of the Defense Innovation Initiative (DII) for the Asia Pacific.

What specific technologies will underpin the DII remains mired in the Pentagon’s planning, programming and budgeting processes. Secretary Hagel mentioned “the most cutting-edge technologies and systems, especially in robotics, autonomous systems, miniaturisation, big data and advanced manufacturing, including 3-D printing.”8 Early press reports suggested the new Offset Strategy would have a heavy emphasis on robotics.9 In January 2015, Katrina McFarland, the Assistant Secretary of Defense for Acquisition singled out “autonomous systems, human systems and cognition, electronic warfare, quantum sciences, hypersonics, and the handling of large data as focus areas” for greater research and development.10 Recent reports based on interviews with defence industry representatives about the upcoming Long Range Research and Development Plan (LRRDP) have been critical of its broad brush approach including “space, undersea, air dominance and strike, air and missile defence.”11 Deputy Secretary Work has appeared to advocate fairly specific investments in focused technologies, programmes and systems designed to meet future warfighting challenges, especially anti-access, area-denial (A2/AD) approaches seeking to thwart America’s ability to project military power.

Paradoxically, the NSS itself focuses less on cutting edge and innovative technologies than “protect[ing] and safeguard[ing] U.S. “investment in foundational capabilities like the nuclear deterrent, and we will grow our investment in crucial capabilities like cyber; space; and intelligence, surveillance, and reconnaissance.”12 The next few years will likely reveal the difficulties of sustaining current advantages while pushing the technological edge.13

Implications for the Asia Pacific Security Environment

Although Secretaries Hagel and Carter, and other Obama administration officials have been relatively careful about directly linking the Third Offset Strategy to the Asia Pacific region, much less linking it to any particular potential adversary like China, the approach must be understood within the wider context of American national security strategy in the second half of the Obama administration. First and foremost, as the 2015 National Security Strategy demonstrates, the Obama administration remains committed to the so-called Asia Pivot — now known as the Asia Rebalance. By 2020, the U.S. naval force posture will be roughly divided 60–40 between the Asia Pacific region and the rest of the world. As we

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12 NSS, p. 8.
13 There is, however, a strong analytic tradition that believes that the United States will maintain its technological superiority in weapons, especially in the face of military diffusion. “Path dependence, scale economies, learning effects regarding production techniques, and barriers to entry in the production of high-end military power make the maintenance of unmatched capabilities far easier than many retrenchment advocates suggest—particularly in today’s environment in which modern weaponry is so much more complex both to produce and to use than in past eras.” Stephen G. Brooks, G. John Ikenberry, and William C. Wohlforth, “Don’t Come Home, America: The Case against Retrenchment,” International Security vol. 37, no. 3 (Winter 2012/13), p. 21.
shall see, American defence experts have not been shy about casting the Third Offset Strategy in terms of the Sino-American rivalry.

Second, the Asia Rebalance itself is not explicable without reference to both the growing centrality of the Asia Pacific to the global economy and the potential threat posed by the combination of China’s military modernisation and a more aggressive set of Chinese foreign and security policies. Specifically, as the most dangerous potential rival in the most significant geographic region, assuming the Third Offset Strategy has legs at least to the end of the Obama administration and likely far into the next presidential administration regardless of whether it is Democratic or Republican, how is it going to affect U.S. allies and friends in the Asia Pacific?

Decisions on how to implement the Third Offset Strategy will first hinge on how the Department of Defense, the individual military services, and the intelligence community evaluate the specific nature of the threat. Implementation will depend on the means by which planners propose to meet the threat, given the operational concepts used to organise and to apply to existing and projected military capabilities.

Defence analysts have proposed several ways to defeat America’s adversaries which provide insight into the types of technologies that should be promoted by the Third Offset Strategy. Former Pentagon official and now Senior Rand analyst Dave Ochmaneck has testified that the United States should develop capabilities that appear designed to thwart adversary A2/AD capabilities, perhaps along the lines of the now defunct AirSea Battle:

(i) Enhanced capabilities to thwart the enemy’s attacking forces early in a conflict
(ii) Resilient basing
(iii) Rapid suppression/destruction of enemy air defences
(iv) Degrading the enemy’s situational awareness
(v) Cyber defence and offense

Other analysts emphasise different sets of capabilities based in part on the long-standing development of the reconnaissance strike complex. Robert Martinage proposes focusing on technologies intended to increase the ability of the U.S. to conduct global precision strikes:15

(i) Increase space resiliency, hedge against the loss of space-based enablers, and develop counter-space capabilities;
(ii) Expand the geographic coverage of the undersea fleet and sensor networks;
(iii) Develop and field modern ground-, air-, and sea-deployed naval mines and long-range anti-submarine warfare weapons;
(iv) Reverse the active defence versus missile attack cost exchange ratio;
(v) Develop and field new counter-sensor weapons;
(vi) Accelerate fielding of aerial refuelling capabilities;
(vii) Field a new long-range strike bomber;
(viii) Field land-based, penetrating, high-altitude, long-endurance UAVs and land- and carrier-based unmanned combat air systems; and
(ix) Develop expeditionary, ground-based, local “A2/AD” networks.16

Whether the technological innovations, new warfighting concepts, advanced gaming techniques, and defence reforms proposed under the umbrella of the Third Offset Strategy follow the long-standing trends associated with global precision strike, AirSea Battle, some combination thereof (they are not necessarily incompatible), or some other overarching theme, it is important to begin considering how they will affect the strategic dynamics in the Asia Pacific.

15 Precision strike is defined as “the striking of an adversary while utilizing guided munitions” while long-range or global precision strike is “[t]he capability to achieve a desired effect(s) rapidly and/or persistently, on any target, in any environment, anywhere, at any time.” Rand Huiss, Proliferation of Precision Strike: Issues for Congress, CRS Report for Congress no. R42539 (May 14, 2012), May 14, 2012
Chinese Military Modernisation

The nature of China, the greatest strategic rival to the United States, also calls into question the utility of a technology driven strategy. Modern China, unlike most post-Cold War American adversaries, is technologically advanced and may be approaching or exceeding American capacities in selected military systems necessary for modern warfighting—missile, space-based, and undersea systems, for example. Most cybersecurity specialists already agree that Chinese hackers, with or without government support, have wreaked havoc in U.S. national security systems including the defence industrial base. Cyber-power is a key element of Chinese strategy. Even more importantly, despite significant weaknesses and failures, the trend line for China’s own military technological progress is positive: China is investing in systems necessary to match or counter U.S. capabilities. Where it cannot match American capabilities in the short-to-intermediate term, it has invested heavily in asymmetric capabilities and doctrine intended to counter American strengths.

Analysts in the Asia Pacific believe some nations are developing anti-access/area-denial strategies (A2/AD) intended to prevent the U.S. navy and other forces from operating close in. Using a wide variety of tactics from the high technology threat of long-range precision strike to relatively low technology mine warfare systems, several nations have developed the means to undermine American freedom of action in the littorals and perhaps the oceans. U.S. adversaries may attempt to prevent joint and combined military forces from reaching their full combat potential and incurring great costs for trying to do so.

At the heart of the much recent thinking about A2/AD is the growing reliance of all parties on cyber capabilities. In effect, unfriendly states will use U.S. reliance on computer and communications networks to disrupt American and allied forces in the war theater and prevent or delay forces stationed elsewhere from flowing into the region. The American joint force and, in all likelihood, the forces of key American partners and allies will face a wide range of cyber operations intended to disable command and control systems, make existing C4ISR arrangements unreliable, and even affect the logistics trains necessary to support combat elements far from the American homeland.

Further, unless the United States military and intelligence communities can somehow overturn the laws of physics, economics, and geography simultaneously, the U.S. remains at a disadvantage relative to China in terms of the fundamentals of military conflict in the Asian littoral. The United States is attempting to project power half a world away against a continental-sized power. This necessitates the U.S. to expend more resources to bring its military power to bear across the Pacific Ocean. Simple logic dictates that the long-lines of communication tethering the forces at sea to the American homeland or to bases located in the Asia Pacific region (often within range of Chinese missiles) will be vulnerable—not just to kinetic measures but to cyber operations that threaten telecommunication and computing systems enabling the United States to operate its netted, joint force. Cyber conflict, an outgrowth of America’s own preferred way of war, provides a key vulnerability in future conflicts.

Somewhat reassuringly, the most cogent explanations of the Third Offset Strategy recognise that the most dangerous, if not most likely, potential adversaries for high-end combat with the United States will exploit American reliance on integrated military systems. Martinage warns that the United States will face “aggressive electronic and cyber-attacks focused on disrupting U.S. C4ISR networks.”

Future adversaries will be able to degrade, disrupt or make unavailable at least (temporarily) many critical communications and targeting systems enabled by GPS and satellites. The key question is whether planners, acquisition officials and the defence industry can and will design and procure Offset Strategy technologies either hardened against such disruptions or resilient enough to operate effectively in a degraded environment.

**Peacetime Competition**

The single most basic assumption underlying the Third Offset Strategy like its two predecessors is that the economic, industrial and technological strength of the United States can be harnessed to overcome the advantages of potential adversaries and the inherent difficulties associated with military power projection from the United States to the far reaches of the globe. Some scholars, including Tom Mahnken, building on analyses developed by the Department of Defense’s Office of Net Assessment, advocate that the United States adopt competitive strategies which self-consciously impose costs on adversaries and potential adversaries by setting the pace with innovative military technologies.\(^{22}\)

The problem is that the United States might not be able to sustain a pacing strategy in the long run, and at least one potential competitor, China, may be better positioned to win the technological competition. China’s economic growth remains high, between 7–9 per cent in recent years, and its willingness to invest in military modernisation has grown tremendously over the past decade. Numerous accounts document how the Chinese defence industry has increased its capacities,\(^{23}\) at least in part, by using cyber espionage to steal American and western technology and reverse engineering weapons and systems.\(^{24}\) Furthermore, it is worth remembering that neither of the first two offset strategies confronted an adversary—the Soviet Union—whose Gross Domestic Product approached that of the United States.

The United States, on the other hand, remains uncertain about its economic recovery from the 2008 recession, tired of the post-9/11 increase in national security spending, and, by some accounts, greatly in need of domestic investment (in education and infrastructure) to ensure its own economic prosperity. It might be risky to initiate an Offset Strategy that depends on out-innovating and outspending rivals.

The United States has not helped itself over the past several decades because it has failed multiple times to reform the defence acquisition system,\(^{25}\) or overcome political problems associated with the complicated relationship between the defence officials, the military services, the U.S. Congress and the largely private defence industry. As discussed above, the increasing importance of cybersecurity has made these problems even more intractable. Even as the traditional defence industry remains ready and able to meet the nation’s defence procurement needs if it is given clear guidance and adequate incentives,\(^{26}\) most firms in the software and hardware sectors of the information technology industry have not and do not work closely with either the U.S. government or defence industry proxies including prime contractors and systems integrators. Overcoming cyber operations of adversaries and protecting the highly networked military systems of the U.S. military will require a hybrid Cyber Military Industrial sector. Despite the recent attention of the Obama administration to cybersecurity and the relative growth of “cyber” as a component of recent defence budgets, this hybrid appears far in the future.

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Minding the Gap

One major difficulty for American allies and potential coalition partners is keeping pace with American military innovations. As Theo Farell and Terry Teriff observe about the past several decades, “European states have simply been unable to match the level of U.S. investment in new military technologies and so for some time critics have warned of a growing ‘transformation gap’ between the United States and the European allies.” A similar dynamic is likely to develop in the Asia Pacific. Relatively few regional partners are likely to match the United States as it accelerates efforts to adopt innovative technologies in the face of the Chinese A2/AD challenge. In theory, this could lead to tension between and among America’s Asian partners, especially as there are existing disagreements about how to meet the Chinese challenge and what military measures are necessary. Farrel, Terriff and Osinga’s detailed research into America’s relationship with its NATO allies provides a more nuanced view of a previous and ongoing transformation gap that may provide insight into what will happen in the Asia Pacific in the coming years. Most important, their research demonstrates that a wide variety of international and local factors intersect to shape the responses of individual states to the process of military transformation, and, in particular, the difficulty of coalition operations among militaries with very different levels of capability. Clearly some states, like Japan, South Korea and Singapore may choose to match American military investment in innovative technologies, while other with less robust economies or very different strategic cultures and circumstances (i.e. India) may choose not to or simply will try and fail. Clearly, individual states might benefit from procurement strategies and defence industrial relations that mind the potential for gaps between U.S. and regional partners. Some challenges will be technical and technological—sustaining the interoperability of communications systems for example—but many others will involve doctrine and training.

CONCLUSION

As with the previous two versions, over time the Third Offset Strategy will have far-reaching effects on American allies, friends and adversaries. Not all of the effects will be positive from the perspective of individual countries or even the international and regional security environment as a whole. American policy-makers recognise that the Third Offset Strategy will impact the rest of the world but they appear relatively sanguine about the results. Deputy Secretary of Defense Robert Work has spoken directly about this issue in a series of speeches: “While the Defense Innovation Initiative and a third offset strategy is a U.S. initiative, it will also require a deliberate, aggressive effort on the part of our allies.” Yet, history of both the earlier Offset Strategies should give a pause.

For the future, it remains an open question whether American allies will follow the U.S. lead. Japan’s defence spending remains limited; India is still catching up with capabilities reminiscent of the Eisenhower years (aircraft carriers, missile systems and nuclear submarines); and the smaller friendly states across the Asian littoral have demonstrated a reluctance to balance militarily or even diplomatically with the United States. As the United States remains engaged to counter any China threat, they see little need to overspend on military equipment or innovations that will neither provide sufficient defence against regional powers nor allow coalition operations at the high end of conflict.

And, of course, Chinese officials themselves are well aware of both their own military strengths and American vulnerabilities; hence the intense pursuit of A2/AD capabilities. There is little reason to believe that the newly confident and relatively wealthy China will not adjust to the Third Offset Strategy.
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