

Recommendations for a Future National Defense Strategy

David Ochmanek

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Recommendations for a Future National Defense Strategy

Testimony of David Ochmanek¹
The RAND Corporation²

Before the Committee on Armed Services
United States Senate

November 30, 2017

Good morning Chairman McCain, Ranking Member Reed, members of the committee, and staff. I appreciate the opportunity to share with you insights that my colleagues and I have gained from our analyses of emerging threats to U.S. military operations. Nine months ago, I had the honor of appearing before this committee to testify on the state of the U.S. armed forces' ability to counter threats posed by the nation's adversaries. On that occasion, like others who joined me on that day, I pointed to some serious and growing gaps that war gaming and analysis have identified in the capabilities of U.S. forces, voicing concerns about the eroding credibility of U.S. security guarantees in the face of these unfavorable trends. In the intervening months, I have seen little to change my assessment of the situation.

The U.S. Department of Defense (DoD)'s efforts to develop a new National Defense Strategy (NDS) and accompanying guidance to components for force development are opportunities to reverse these trends, and it will be important that the Department get these right. But even a perfectly articulated NDS will do little to ameliorate the problem unless the Department is given more resources soon and on a sustained and predictable basis. Put simply, U.S. forces today and for some time have been given too little money with which to prepare for the missions assigned to them.

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of the RAND Corporation or any of the sponsors of its research.

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U.S. Military Capabilities: A Summary Assessment³

The security environment in which U.S. forces are operating and for which they must prepare is, in important ways, more complex and more demanding than the familiar post–Cold War world in which most of us have formed our expectations about what constitutes an appropriate level of investment in military power.⁴ To wit:

- U.S. force planning prior to Russia’s attacks on Ukraine did not take account of the need to deter large-scale aggression against the North Atlantic Treaty Organization (NATO).
- DoD has not moved quickly enough to provide the capabilities and basing posture called for to meet the manifold challenges posed by China’s rapidly modernizing armed forces.
- The prospect of nuclear weapons in the hands of North Korea and, potentially, Iran poses challenges for which U.S. forces do not currently have satisfactory answers.
- U.S. forces face the prospect of a geographically widespread campaign of indefinite duration against the Islamic State of Iraq and Syria (ISIS), Al Qaeda, and other violent extremist groups.

As these threats have emerged and U.S. forces have engaged in unremitting combat for 16 years, the nation has not committed the resources called for to build and sustain the capabilities that the forces need if they are to succeed in this more demanding environment. As a result, *the United States now fields forces that are, at once, larger than needed to fight a single major war, failing to keep pace with the modernizing forces of great-power adversaries, poorly postured to meet key challenges in Europe and East Asia, and insufficiently trained and ready to get the most operational utility from many of DoD’s active component units.* Put more starkly, RAND’s war games and simulations suggest that U.S. forces could, under plausible assumptions, lose the next war they are called upon to fight.⁵ In light of this, it is a matter of increasing urgency that the nation invest in new military capabilities, posture, and operational concepts designed to meet the manifold challenges presented by U.S. adversaries.

³ Research and analysis upon which this testimony draws is documented, among other places, in David Ochmanek, Peter A. Wilson, Brenna Allen, John Speed Meyers, and Carter C. Price, *U.S. Military Capabilities and Forces for a Dangerous World: Rethinking the U.S. Approach to Force Planning*, Santa Monica, Calif.: RAND Corporation, RR-1782-IRD, Forthcoming.

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⁵ For a succinct assessment of the military balance between Russia and NATO and the prospects for a defense of the Baltics, see David A. Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, Calif.: RAND Corporation, RR-1253-A, 2016. For an assessment of trends in China’s armed forces and their implications for U.S. defense strategy and planning, see David Ochmanek, *Sustaining U.S. Leadership in the Asia-Pacific Region: Why a Strategy of Direct Defense Against Antiaccess and Area Denial Threats Is Desirable and Feasible*, Santa Monica, Calif.: RAND Corporation, PE-142-OSD, 2015.

Peer Adversaries and A2/AD Threats

The means that the United States' most capable adversaries—China and Russia—use to create those challenges (ballistic and cruise missiles, sophisticated air defenses, anti-satellite weapons, electro-magnetic and cyber attacks, and so forth) are well known and do not need to be repeated here. It is, however, important to understand how U.S. and allied forces can and should be evolving their capabilities, posture, and operational concepts to address these challenges.

Our research points to four independent but complementary lines of capability development:

1. **Damage, disrupt, and destroy the enemy's operational centers of gravity in contested domains.** Specifically, this means finding ways to “reach into” contested airspace and maritime zones to locate, identify, engage, and attack the surface ships that would be part of a Chinese invasion of Taiwan or the mechanized ground forces that would constitute the spearhead of a Russian invasion of the Baltic states. U.S. adversaries seek to use their anti-access/area denial (A2/AD) capabilities to create a window of opportunity during which they hold U.S. combat power at bay so that they can conduct campaigns of aggression. The United States must be able to deny them this sanctuary from the outset of a conflict, even before U.S. forces have suppressed the enemy's A2/AD threats. This approach differs in important ways from the joint operational concept that U.S. forces have used successfully against less capable adversaries since Operation Desert Storm in 1991, and implementing the approach will require new capabilities.
2. **Strengthen U.S. military posture in key theaters.** Since Operation Desert Storm, U.S. forces have become accustomed to relying heavily on an expeditionary approach to power projection, in which the vast bulk of U.S. combat power employed in a conflict is deployed forward following warning or the actual initiation of hostilities. This approach is less appropriate for theaters in which U.S. and allied forces face threats from highly capable adversaries, especially in NATO member countries in Europe, where heavy ground forces will play important roles in an effective defense. Strengthening posture also means investing in base infrastructure that is more resilient in the face of large-scale attacks by accurate ballistic and cruise missiles.
3. **Improve capabilities to suppress and destroy enemy air defenses.** In every conflict since Korea, U.S. forces have operated virtually without regard to the threat of enemy air attacks and have enjoyed freedom of maneuver in enemy airspace, allowing them to observe and attack targets of value to the enemy. Dense arrays of modern, mobile, surface-to-air missile systems and modern fighter aircraft give China and Russia the ability to deny U.S. forces this crucial advantage, at least during the critical opening phase of a conflict, and U.S. capabilities to counter these have not kept pace with the threat. Adversaries' heavy investments in these defenses reflect their fear of what modern air forces with precision weapons can do on the battlefield. Accordingly, fielding improved capabilities to suppress enemy air defenses should have outsized effects on deterrence of aggression.
4. **Win the fight for information superiority.** Recognizing the critical importance of accurate, timely information and agile command and control in modern military operations, U.S. adversaries are investing heavily in capabilities intended to improve their understanding of the battlefield and to deny the United States the same. These capabilities include space-based and airborne sensors, robust communication systems and command

facilities, electronic jamming systems, anti-satellite weapons, and cyber weapons. This makes it imperative that DoD invest in more survivable sensor platforms and communication links, cyber defenses, and offensive systems. U.S. forces, which have become accustomed to operating in environments that pose no threats to their information superiority, must also find ways to operate effectively in disrupted, “low bandwidth” environments.

Nuclear-Armed Regional Adversaries

Repeated war games consistently show that deterring a nuclear-armed regional adversary, such as North Korea, poses unique challenges that make it anything but a lesser-included case of deterring a more capable adversary, such as Russia or China. Ironically, the relative weakness of North Korea’s conventional forces means that, in a conflict or deep crisis, a North Korean leader may perceive that he and his regime have little to lose in using nuclear weapons against military targets, making it difficult to deter such use through the threat of retaliation in-kind. This reality means that U.S. and allied forces are driven to find ways to improve capabilities to *prevent* nuclear-armed regional adversaries from effectively using their nuclear weapons.⁶ Given the challenges associated with locating and destroying weapons in deep underground facilities, hunting and destroying dispersed mobile missiles, and intercepting ballistic missiles once launched, the United States should not have high confidence in its nuclear prevention capabilities today.

Salafist-Jihadis and Other Violent Extremist Groups

Even as U.S. forces are faced with the need to quickly and significantly “raise their game” vis-à-vis peer and nuclear-armed regional adversaries, they must also continue with the ongoing fight against the most threatening violent extremist groups, including the Taliban in Afghanistan, ISIS in its various manifestations, and Al Qaeda. A central tenet of U.S. strategy against such groups has been to keep them under constant pressure over long periods of time, so as to keep them off-balance and to prevent them from effectively recruiting and expanding their influence and power. Extensive experience in battling such groups over the past 16 years has allowed U.S. and partner forces to devise increasingly effective approaches to defeating quasi-states, such as ISIS, and taking leadership cadres off of the battlefield through targeted capture or kill operations. Key capabilities in these fights going forward will be specialized forces (often from the special operations community) to train, advise, and assist partner forces; robust means for gathering and analyzing intelligence about adversary groups; and more-affordable precision attack capabilities that can dwell close to areas of ongoing operations and deliver on-call fires against emerging targets.⁷

⁶ See David Ochmanek and Lowell H. Schwartz, *The Challenge of Nuclear-Armed Regional Adversaries*, Santa Monica, Calif.: RAND Corporation, MG-671-AF, 2008.

⁷ David Ochmanek, Andrew R. Hoehn, James T. Quinlivan, Seth G. Jones, and Edward L. Warner III, *America’s Security Deficit: Addressing the Imbalance Between Strategy and Resources in a Turbulent World: Strategic Rethink*, Santa Monica, Calif.: RAND Corporation, RR-1223-RC, 2015, pp. 26–27.

Crafting the National Defense Strategy and Forces to Implement It

Individually and in combination, the challenges outlined earlier constitute an extremely demanding set of requirements for this nation's armed forces. Those tasked with developing the new NDS and the forces to implement it surely understand that a "business as usual" approach to planning and resourcing U.S. forces will not suffice. New priorities must be chosen and additional resources, *focused on investments of greatest relevance to those priorities*, must be made available if the nation is to reverse the decline in the credibility of its conventional deterrent.

As a foundational step in this endeavor, DoD's leaders should consider directing each component to build its force so that it can, as part of a joint and combined operation, *defeat any single adversary*, including the most capable of them. This may seem an obvious requirement, but the fact is that, today, the United States should not have confidence that the joint force can meet it. For several years now, gaming and analysis of plausible future warfights have revealed serious and growing shortfalls in the capabilities of programmed U.S. forces. If not reversed, these adverse trends will have profound and unavoidable strategic consequences.

A Revised Force Planning Construct

The following force planning construct would be consistent with the approach advocated here:

1. Defend the homeland.
2. Deter and, if necessary, defeat aggression by any single adversary state.
3. Sustain operations against selected violent extremist groups.
4. Deter opportunistic aggression by a second state adversary.

Inherent in the construct would be the requirement that DoD components resource each of the four elements in descending order of priority. That is, they would be directed to accept risk in elements 3 and 4 until it was judged that sufficient resources had been devoted to elements 1 and 2 to achieve a reasonable degree of confidence that those elements could be achieved.

The key to making this approach work is to size and equip each major force element—Army combat brigades, Air Force and Marine Corps fighter squadrons, Navy carrier strike groups, and so forth—so that it can meet the demands posed by the most stressing scenario *for that force element*. As examples, the Army's armored brigade combat teams would be sized to meet the demands of their biggest fight (a Korea scenario) but equipped to successfully combat their most sophisticated foe (Russian ground forces), USAF fighter squadrons would be sized and equipped to prevail against the largest and most capable threat they face (Chinese forces), and so on. This would have the effect of promoting force modernization as the highest priority for resourcing while ensuring adequate capacity for at least one war—something that has been lacking in U.S. force planning heretofore.

Investment Priorities

The Defense Advanced Research Projects Agency (DARPA), the Strategic Capabilities Office, service labs, and industry are developing new capabilities that can address many, if not

most, of the operational challenges facing U.S. forces today and in the future. Much can be done to reverse adverse trends by investing in near-term, here-and-now systems and adapting key aspects of established operational concepts. Attached at the end of this statement is a table summarizing the types of military capabilities that gaming and analysis suggest can do the most to strengthen the joint force's ability to defeat aggression by the four state adversaries of greatest concern and to support a sustained campaign against violent extremist organizations.⁸ Highlights from that list, keyed to the four lines of capability development and the non-peer adversaries outlined earlier, are as follows:

- **Damage, disrupt, destroy the enemy's operational centers of gravity in contested domains.** Develop and field sensors that can survive and operate in the A2/AD environment. Examples include unattended ground- and sea-based sensors; small, swarming unmanned aerial vehicles; and stealthy air vehicles. Accelerate and expand procurement of standoff weapons, such as the Joint Air-to-Surface Standoff Missile – Extended Range (JASSM-ER), the Long-Range Anti-Ship Missile (LRASM), and powered dispensers with guided anti-armor munitions so that long-range bombers can effectively and survivably attack key enemy targets from the outset of a conflict. Aggressively explore options for lower-cost weapon delivery from undersea (e.g., large unmanned underwater vehicles). Defer plans to retire selected cluster weapons until cost-effective replacements are available in sufficient numbers.
- **Strengthen U.S. military posture in key theaters.** Station more U.S. heavy armored forces and artillery along NATO's northeastern flank. Increase forward-based stocks of preferred munitions in both the U.S. Pacific Command and U.S. European Command areas of responsibility. Improve the resiliency of air bases with investments in low-cost shelters, fuel bladders, and other passive protection measures, decoys, and modern cruise missile defenses (e.g., Indirect Fire Protection Capability Increment 2).
- **Improve capabilities to suppress and destroy enemy air defenses.** Accelerate development and fielding of a longer-range, fast-flying, anti-radiation missile and a longer-range air-to-air missile. Explore new concepts for disposable, stand-in jamming systems and swarming, autonomous weapons.
- **Win the fight for information superiority.** Continue to explore ways to use civil-sector communications and imaging satellite constellations in military operations. Continue to develop and test, and begin to field, new systems that can enhance the resiliency of selected military satellites, including through improved situational awareness, maneuver, stealth, active defense, redundancy, and responsive launch. Invest selectively in airborne and terrestrial backups to key space-based capabilities. Expand anti-satellite capacity, especially in systems (such as jammers and lasers) that can disrupt or disable adversary satellites without creating debris. Added investments in both defensive and offensive cyber capabilities can help here. However, the gaming and analysis that I have seen

⁸ The research on which this testimony is drawn focused on understanding and countering the threats posed by state adversaries (such as China, Russia, North Korea, and Iran) and Salafist-Jihadi groups. My work has not delved deeply into issues of the readiness of U.S. forces or the stresses that high operational tempos may be imposing on people and units. I have also not addressed the need to recapitalize U.S. nuclear forces. The absence of recommendations in these areas should not be taken as implying that investments there are not warranted.

provide little hope that cyber alone can be decisive in defeating conventional military aggression if deterrence fails.

- **Prevent nuclear use.** Develop or adapt an air-to-air missile and associated sensor suite for intercepting theater ballistic missiles in boost-phase. Continue to explore options for improved discover and tracking of nuclear weapons and mobile delivery vehicles. Continue investments to improve the reliability of ground-based interceptors to protect the United States.
- **Defeat Salafist-Jihadis and other violent extremist groups.** Continue to expand intelligence collection and analysis capacity. Acquire two to three wings of light reconnaissance-attack aircraft for more cost-effective air operations in permissive and semi-permissive air defense environments. Continue to grow the end strength of special operations forces (SOF) at a deliberate pace to ease the tempo of operations experienced by these warriors.

Contributions of Allies and Partners

Obviously, countering the threats that potential adversary states pose is not solely a problem for the United States. In fact, it would be unwise and infeasible for the United States to attempt to address these challenges unilaterally. Allies and partners, particularly those directly or indirectly threatened by adversary activities or in the same region, have a strong interest in ensuring that their forces can impose a high price on an aggressor and contribute effectively to combined regional operations that the United States might lead.

A host of options—many of them rather low-cost and low-tech—are available to allies and partners seeking to increase their contributions to the common defense. Taiwan, for example, could significantly strengthen its defenses against an invasion by investing in short-range unmanned aerial vehicles, anti-ship cruise missiles, shallow water mines, rocket artillery, mobile short-range air defenses, and communications jamming gear.⁹ The government of the Philippines could help U.S. forces to increase the resiliency of its base structure by granting access to air bases on its territory and providing host nation support services to deployed forces. The Baltic states could invest in border monitoring and secure communication systems, while other NATO allies could raise the readiness levels of their armored maneuver forces.¹⁰ U.S. force planners should work closely with allies and partners to identify ways in which their planned investments and those of the United States can maximize complementarity and interoperability.

I will also note that the additions to the defense program described here are not, by and large, major platforms or new force structures. Rather, what emerges from our gaming and analysis is the value of investments in such things as advanced munitions; more-robust enablers (such as intelligence, surveillance, and reconnaissance (ISR) systems; communication links; and command and control nodes); posture, which is about the placement of assets and the resiliency

⁹ Michael J. Lostumbo, “A New Taiwan Strategy to Adapt to PLA Precision Strike Capabilities,” in Roger Cliff, Phillip C. Saunders, and Scott Harold, eds., *New Opportunities and Challenges for Taiwan’s Security*, Santa Monica, Calif.: RAND Corporation, CF-279-OSD, 2011, pp. 127–136.

¹⁰ Andrew Radin, *Hybrid Warfare in the Baltics: Threats and Potential Responses*, Santa Monica, Calif.: RAND Corporation, RR-1577-AF, 2017, pp. 33–34.

of base infrastructures; and novel operating concepts. This is not to say that adding force structure in some areas would not have value. Surely, many elements of the force (not only SOF) have experienced excessively high operations tempos. But, in general, investing in new ways to equip, enable, and employ U.S. forces seems to offer the greatest leverage in restoring credible conventional deterrence.

It is also worth noting that most of the force enhancements highlighted here are not high-tech. Many, such as fuel bladders and expedient aircraft shelters, are quite low-tech. Others (e.g., JASSM-ER, guided anti-armor munitions, stationing additional ground forces on NATO's eastern flank) are here-and-now capabilities in which investments could be increased. Still others (e.g., longer-range anti-radiation and air-to-air missiles, better exploitation of civil sector satellites) involve adapting or integrating existing technologies into new systems or new ways of operating. In short, *we need not and should not wait for the maturation of exotic new technologies in the Third Offset or other long-term research and development initiatives before investing in things that can make major differences in the ability of U.S. forces to deter and defeat aggression by even the most capable adversaries.*

Conclusion

The adverse trends in the relative military capabilities of U.S. and adversary forces outlined here have been known to the defense analytic community for some years now. And gaming and analysis have yielded growing insight into promising approaches to addressing many of the resulting challenges. The two things that are needed now are money and focus—in particular, additional money to allow the Department to move swiftly to develop, acquire, and field new systems and postures and a focus on fielding capabilities that can make the greatest and most enduring contributions to a robust defensive posture vis-à-vis China, Russia, and other adversaries. The Trump administration and the 115th Congress have the opportunity to rectify the strategy-forces mismatch that has arisen over the past several years and put the United States back on a path toward fielding forces that can defeat any adversary.

One note of caution: Fielding the sorts of capabilities I have highlighted here should not, in most cases, be expected to restore to U.S. forces the degree of overmatch that they enjoyed against regional adversaries of the past, such as Iraq and Serbia. Any major conflict involving China, Russia, or North Korea is bound to be a costly and bloody affair. But I believe that it is within the United States' means—technologically, operationally, and fiscally—to field forces capable of confronting even the most capable adversaries with the prospect of defeat if they choose aggression. That is the gold standard of deterrence, and it is the standard to which I believe the United States should aspire.

Again, thank you for the opportunity to appear before this committee. I look forward to answering your questions.

Table. Priority Enhancements to U.S. Forces and Posture

China	<ul style="list-style-type: none"> • Accelerated development and fielding of a longer-range, fast-flying, radar-homing air-to-surface missile* and a longer-range air-to-air missile* • Forward-based stocks of air-delivered munitions, including cruise missiles (e.g., JASSM and JASSM-ER, LRASM)*, surface-to-air missile suppression missiles (e.g., homing anti-radiation missile, miniature air launched decoy)*, and air-to-air missiles (e.g., AIM-9X and AIM-120)* • Prepositioned equipment and sustainment for ten to 15 platoons of modern short-range air defense systems (SHORADS) for cruise missile defense • Additional base resiliency investments, including airfield damage repair assets and expedient aircraft shelters, and personnel and equipment to support highly dispersed operations • Accelerated development of the Next-Generation Jammer* • A high-altitude, low-observable unmanned aerial vehicle system* • More-resilient space-based capabilities (achieved by dispersing functions across increased numbers of satellites and increasing the maneuverability, stealth, and “hardness” of selected assets)* • Counter-space systems, including kinetic and nonkinetic (e.g., lasers, jammers) weapons*
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Russia	<ul style="list-style-type: none"> • * Items listed under “China” marked with an asterisk • Three heavy brigade combat teams and their sustainment and support elements forward based or rotationally deployed in or near the Baltic states • One Army fires brigade permanently stationed in Poland, with 30-day stock of artillery rounds, and one additional fires brigade set prepositioned • Forward-based stocks of artillery and multiple launch rocket system rounds, plus anti-tank guided missiles • Forward-based stocks of air-delivered anti-armor munitions (e.g., SFW/P3I) • Eight to 12 platoons of SHORADS forces stationed or rotationally deployed in NATO Europe • Increased readiness and employability of mechanized ground forces of key NATO allies
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Iran	<ul style="list-style-type: none"> • Improved, forward-deployed mine countermeasures • High-capacity close-in defenses for surface vessels
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North Korea	<ul style="list-style-type: none"> • Improved ISR systems for tracking nuclear weapons and delivery systems • Exploratory development of boost-phase ballistic missile intercept systems • Continued investments to improve the reliability and effectiveness of the ground-based intercept system to protect the United States
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Salafist-Jihadi Groups	<ul style="list-style-type: none"> • Improved intelligence collection and analysis capabilities and capacity • Light reconnaissance and attack aircraft • Gradually expanded SOF end strength toward a goal of 75,000–80,000 • Powered exoskeleton, also known as the Talon Project • Swarming and autonomous unmanned vehicles

SOURCE: Ochmanek et al., forthcoming.