

Restoring U.S. Power Projection Capabilities

Responding to the 2018 National Defense Strategy

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U.S. defense strategy and forces today could be at something of an inflection point. The National Defense Strategy promulgated by the Trump administration in early 2018, and the largely positive reception that it has enjoyed, signals the emergence of a recognition that the capabilities of U.S. military forces have been eroding vis-à-vis those of key adversaries, especially China and Russia.¹ As a consequence, the United States' ability to deter aggression and intimidation, to assure allies, and to influence events in East Asia and Europe is being undermined. Unless steps are taken to reverse these trends, the United States could find itself playing a greatly diminished role internationally, irrespective of the strategies and intentions of this administration or its successors.

The passage by Congress of a two-year budget agreement for fiscal years (FYs) 2019 and 2020 that substantially increases funding for the U.S. Department of Defense (DoD) opens up the possibility of making investments in new capabilities and regional

postures that can improve the ability of the United States to deter and defeat large-scale aggression by the most-threatening adversary states. But even the \$165 billion in additional money that would be added to DoD's topline in the coming two years will not be sufficient to fund every worthy claimant on DoD's resources.² Choices will have to be made if future U.S. forces are to meet the operational challenges confronting them.

This Perspective is intended to help inform those choices. It addresses four aspects of the problem:

- What are the most important military challenges facing U.S. forces today and in the future?
- What sort of armed force is appropriate for the United States, and why?
- How and in what ways do U.S. forces today fall short of that standard?
- What sorts of measures are called for to fix the problem, and how feasible is it to implement these?

Underwriting a Strategy of Leadership

In the aftermath of World War II, a broad consensus emerged among Americans that the nation could no longer accept the risks of a strategy that eschewed engagement in the security affairs of key parts of Eurasia. History's most destructive conflict showed that the security and well-being of Americans could only be assured through active engagement abroad and that a priority goal of that engagement had to be to ensure that no powerful hegemon gained dominance over the Eurasian landmass.³ With the adoption by the Soviet Union of a hostile, militarized, and expansionist approach to international relations, implementing this strategy led to the adoption by Washington of a strategy of containment by means of a U.S.-led Western alliance. That strategy featured the forward stationing of upward of 500,000 U.S. military personnel abroad. Over time, the U.S. military alliances with the industrialized democracies evolved into a dense web of relationships that encompassed political, economic, technological, and cultural dimensions.

That strategy of engagement and leadership survived the collapse of the Soviet Union and the end of the Cold War. By the early 1990s, it was widely recognized that, in an increasingly interdependent world, Americans could not hope to achieve security and prosperity at home without the ability to influence actors and shape events abroad. Whether the goal is to protect Americans

from terrorist threats, to limit the proliferation of weapons of mass destruction, to ensure adherence to fair trade practices, or to protect the environment, real progress will require the participation and support of a broad range of international actors. No state, no matter how powerful, can achieve these objectives unilaterally. Given the continued global diffusion of knowledge, technology, wealth, and other instruments of agency, and the increasing connectedness of the global economy, this reality is not going to change. It is not unreasonable, then, to expect that U.S. national security strategy will continue to be animated by the realization that no realistic alternative to international engagement and leadership exists, rhetoric touting an "America first" approach notwithstanding.⁴

Under these circumstances, what sort of armed forces should the United States have? The first strategic priority should be to maintain peace and stability in regions where the nation has important interests and alliance commitments that are under stress: East Asia and Europe. This means that the first military priority is to ensure the viability of key alliances and to prevent any state with interests hostile to those of the United States and its allies from gaining a position of overwhelming dominance in those regions.⁵ In practical terms, this means today that U.S. forces must be postured to deter aggression by China, Russia, and North Korea and,

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in conjunction with allies and partners, to defeat such aggression should deterrence fail.⁶

In addition to deterring and defeating large-scale aggression by state adversaries, U.S. forces must also continue, for the indefinite future, their campaign against violent extremist organizations, such as ISIS and al Qaeda, that have the potential to attack U.S. citizens or to destabilize countries or regions of importance to U.S. interests. As the fight to date against terrorist groups shows, long-term success depends on keeping the group's leaders and networks under unrelenting pressure and building the capabilities of local forces and governments. Much of the campaign against such groups will involve financial, intelligence, diplomatic, and informational instruments. But the U.S. armed forces play crucial roles in training, advising, and assisting partner governments in countering terrorists and in conducting direct attacks, when appropriate. U.S. special operations forces play a leading role here, but they often require transportation, logistics, and other types of support from the general-purpose forces.

Finally, U.S. forces are called upon to protect the United States itself from attack. Under normal circumstances, this means keeping the national missile defense system and elements of the strategic nuclear forces on alert, being prepared to intercept airborne threats from hostile powers or terrorists, and assisting the Department of Homeland Security in monitoring the nation's borders.

This is a very demanding set of missions. Fighting and winning major wars on the territory of distant countries or in their "backyards" is particularly daunting, but this is what the bulk of America's armed forces have been trained and equipped to do since World War II. At present and for the foreseeable future, *the United States alone has the military wherewithal to project large-scale military*

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forces over intercontinental distances and conduct sustained military operations across a broad range of mission sets. This capability is essential in order to offset major imbalances in military power and to sustain the United States' role as the security partner of choice for like-minded states. Without it, the credibility of the U.S. deterrent and of U.S. alliance commitments would erode, as would U.S. power and influence.

Unfavorable Trends

In the post-Cold War period, the ability of U.S. forces, in conjunction with allies, to defeat aggression by the forces of its regional adversaries—states such as Iraq, Serbia, and Libya—was unquestioned. U.S. and allied forces repeatedly demonstrated that, in conflicts against these adversaries, they could quickly seize the initiative; dominate military operations in the air, at sea, on land, in space, and in cyberspace; and achieve their campaign objectives swiftly. This military dominance yielded strategic benefits, not only helping to deter challenges to the U.S.-led global order, but also serving as the "glue" that held together coalitions of like-minded

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states that promoted common action on a wide range of international issues.

Unfortunately, the era of unquestioned U.S. military superiority has not persisted. A variety of factors are responsible for this. First, the vision proffered by the United States and other democratically governed states of societies run according to pluralistic norms and free market economies has not (yet) proven sufficiently compelling to prompt significant and lasting change in many countries. Authoritarian elites in Russia, China, North Korea, Iran, and other states see it as being in their interest to fan historically based animosities toward neighboring states and groups and to challenge elements of the U.S.-led international and regional orders.⁷ In support of these strategies of opposition, the military establishments of these states have closely studied U.S. power projection operations since Operation Desert Storm (ODS), with an eye toward finding ways to thwart potential U.S. military interventions in their regions. To varying degrees, their efforts have borne fruit (as will be discussed later).

At the same time, the United States and many of its closest allies have, since 2001, invested considerable human and material resources in efforts to stabilize the situations in Afghanistan and Iraq and to

counter violent extremist groups elsewhere that are deemed to pose threats to citizens of the United States and of its allies. The ensuing operations have been a drain on attention, money, and patience at a time when economic constraints have limited defense spending. Training for large-scale power projection operations against highly capable adversaries has also suffered. As one result, the armed forces of the United States today, like those of many of its allies, are faced with fleets of aging platforms, the need to rebuild training and readiness for high-end combat operations, and inadequate funding for the types of modern weapons and systems needed to meet the challenges posed by their most capable adversaries.⁸

China and Russia pose the most far-reaching challenges.

Both have invested heavily in capabilities intended to disrupt U.S. deployments to their regions, impose heavy attrition on forces that do deploy forward and prevent those forces from conducting high-tempo operations, and protect their own forces and territories from attack. Their goal is twofold: (1) to raise the costs and risks of a prospective military intervention to a level that could deter a future U.S. leader from responding forcefully to aggression, and, failing that, (2) to hold U.S. military power at arm's length for a period of time sufficient to allow that aggression to achieve its primary aims, confronting the United States and its allies with a *fait accompli* that would be difficult and costly to reverse.

Key capabilities supporting these anti-access area denial (A2/AD) strategies are highlighted below:

Long-range, accurate missiles. Both China and Russia are investing heavily in conventionally armed, precision-guided ballistic and cruise missiles that have sufficient accuracy to destroy even hardened facilities. These weapons bear little resemblance to the dozens of inaccurate Scud missiles that Iraq hurled at coali-

tion forces during ODS, few of which landed anywhere near their intended targets. And China today has thousands of these modern missiles. As a consequence, U.S. forces on land and at sea in a war with either of these adversaries would be subject to being attacked before they ever launched a weapon of their own at the enemy. DoD is investing in active defense systems, such as Patriot, the Terminal High-Altitude Area Defense (THAAD) system, and sea-based SM-3 missiles to shoot down ballistic and cruise missiles, but these defensive systems are expensive, take time to deploy, and can be overwhelmed and destroyed by large salvos of attacking missiles.⁹

Reconnaissance and targeting systems. Chinese and Russian long-range strike systems are supported by increasingly sophisticated means for detecting, identifying, and tracking targets. Both countries have deployed constellations of surveillance satellites, manned and unmanned airborne reconnaissance platforms, land-based over-the-horizon radars, sophisticated command and control networks, and other systems that can allow their forces to determine where concentrations of enemy forces are throughout the region and to direct strikes against them in near-real time. Russian forces in Ukraine have demonstrated high degrees of proficiency at using a variety of tactical reconnaissance systems, including unmanned aerial vehicles, to locate and target troop concentrations, rapidly directing heavy and accurate artillery fire on them.

Integrated air defenses. China and Russia have fielded dense arrays of modern long-range surface-to-air missile (SAM) systems to protect priority regions of their territories and waters. The newest of these systems have ranges of 400 kilometers or more.¹⁰ At these ranges, U.S. airborne platforms have difficulties in reconnoitering the battlespace and engaging key mobile targets, including

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the SAM systems themselves. These SAMs are complemented by fleets of increasingly modern fighter aircraft. Fifteen years ago, China's combat air force was composed of obsolescent aircraft of 1950s and 1960s vintages. Today, a very substantial portion of that force—900 aircraft, including Su-27/30/35 and J-10 variants—are deemed roughly comparable in range, payload, and aerodynamic performance to the fourth-generation F-15s, F-16s, and F/A-18s that make up the bulk of U.S. fighter inventories.¹¹ The Russian air force has similar capabilities. Both countries' air forces have also flown prototypes of fighter aircraft with fifth-generation stealth characteristics. These developments mean that it would take more time and cost more lives and aircraft for U.S. forces to gain air superiority than has been the case in any conflict since the end of the Cold War.¹²

The fight for information superiority. China's military doctrine recognizes the central role that information and rapid decision-making play in modern, complex military operations. Accordingly, China's armed forces are investing heavily in capabilities to protect their information assets and to degrade those of their adversaries. In a conflict with China or Russia, U.S. forces should expect that their command centers and databases will be subjected to intense cyberattacks. Space-based and airborne sensors will also be subject to attack by electronic jamming and by kinetic means. The commu-

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nication links that connect forces in the field to one another and to control centers at multiple echelons can be disrupted, as well.

Finally, these advanced conventional capabilities are deployed against the backdrop of large and survivable **nuclear forces capable of targeting theater forces, as well as the U.S. homeland.**

This reality would constrain U.S. conventional operations during a conflict, due to concerns over possible escalation.

Extensive war-gaming and analysis of potential future conflicts between the United States and both China and Russia suggest that, *absent significant changes in their capabilities, posture, and operational concepts, U.S. forces could face the very real prospect of defeat in plausible scenarios.*¹³ Put more starkly, conflicts such as these could result in Chinese forces occupying Taiwan; Russian forces overrunning large parts of the Baltic states; hundreds of damaged or destroyed ships, tanks, and aircraft; and tens of thousands of dead and wounded U.S. service personnel. Strategically, a failure to reverse these adverse trends would surely lead to diminished confidence in and reliance upon the United States as a security partner and commensurate reductions in U.S. influence worldwide.

North Korea poses a very different set of challenges. This is a state that has had trouble feeding its population yet keeps an estimated 1.19 million men—5 percent of its population—under arms.

Its conventional forces, by all accounts, have few modern weapons and cannot hope to match the capabilities of the forces of South Korea and the United States. In these circumstances, North Korea's leaders must regard their growing arsenal of nuclear weapons as the primary guarantor of their survival.

North Korea is estimated today to have between 10 and 20 fission weapons in the 10-kiloton class—similar in yield to the weapons that destroyed Hiroshima and Nagasaki.¹⁴ The United States, by comparison, fields approximately 1,500 deployed thermonuclear weapons of much higher yield plus several hundred lower-yield tactical nuclear weapons deliverable by fighter aircraft and bombers. In combination with its superior conventional forces and those of South Korea, one might think that deterrence of aggression in general and nuclear use in particular by North Korea would be assured. Unfortunately, there are reasons to doubt this.

RAND researchers have extensively explored the dynamics of potential future conflicts involving nuclear-armed regional adversaries, using interactive gaming. Those games suggest that, while a leader such as Kim Jong-un wants to avoid a war, if war does occur, it could be very difficult to deter him from using the nuclear weapons at his disposal in an effort to stop it.¹⁵ Should an escalating series of provocations lead Seoul and Washington to undertake major offensive actions against the North, Kim would have little

confidence in the ability of his conventional forces to prevail. He might also conclude, irrespective of the announced aims of the U.S. and South Korean leaders, that defeat in war would mean the end of his regime and his execution. Under these circumstances, he might conclude that using nuclear weapons against military targets in South Korea, Japan, and elsewhere in East Asia and then threatening wholesale destruction of urban-industrial areas offered the best chance of ending the fighting and preserving his regime. Threats by the United States to retaliate in kind might then have little effect on his decision calculus because he would perceive that such retaliation would leave him (personally) no worse off than if he were to refrain from using nuclear weapons.

This drives the need for capabilities that can *prevent* a nuclear-armed regional adversary such as North Korea from using nuclear weapons, as opposed to trying to deter such use through the manipulation of costs and benefits. This, in turn, places emphasis on capabilities to detect, locate, track, and destroy nuclear weapons and their delivery vehicles before they can be launched, as well as the ability to intercept and destroy delivery vehicles post-launch. For the Air Force, this might mean improving capabilities to locate, identify, and rapidly attack mobile missile launchers in the field and exploring concepts for intercepting ballistic missiles in boost phase. Unless and until highly reliable means of attack prevention become available, U.S. leaders might be compelled to temper their objectives vis-à-vis nuclear-armed regional adversaries, avoiding conflict with them or using force in limited ways in the hope of minimizing the adversary's incentives to escalate to nuclear use.¹⁶

Carrying on the fight against **violent extremist organizations** will call for continued gradual growth in U.S. special operations forces,¹⁷ as well as efforts to improve intelligence collection, analysis, and sharing; targeted information operations to counter enemy propaganda; and long-term efforts to equip and train the forces of partner states that share the U.S. interest in eliminating havens for violent extremist groups in those states' territories and regions.

In short, as has been noted above, the armed forces of the United States have for decades been assigned a highly demanding set of missions. Of late, those missions have become even more challenging: China has used the exponential growth of its economy to fund a rapid and extensive modernization of its armed forces. The United States is in the 16th year of an open-ended campaign against Salafist jihadi groups. North Korea is fielding nuclear weapons. And to top it off, since 2014, Russia has adopted an overtly hostile attitude toward the West and shown a willingness to use military force against Western interests and measures short of war against the United States and other Western societies directly. While U.S. defense spending has increased to fund operations in the Middle East and Afghanistan, it has not been adjusted to meet the other demands of a deteriorating security environment.

As a result, U.S. forces today are increasingly ill-suited to meeting the demands of an ambitious strategy of leadership and engagement. *Those forces are, at once, larger than needed to fight a single war, failing to keep pace with the modernizing forces of great power adversaries, and poorly postured to meet key challenges in Europe and East Asia.*¹⁸ The nation needs to do better than this.

Priorities for the Future Force

The manifold challenges posed by Chinese and Russian forces are such that simply buying more and better weapons will not be sufficient. In order to restore their ability to defeat aggression by these adversaries, *U.S. forces will need to conceive and implement new approaches to power projection.* The approach to joint expeditionary operations that worked so well against the regional adversaries of the post–Cold War period will very likely fail if tried against China and Russia in the future. That approach features a heavy reliance on expeditionary forces that deploy to a region of conflict following warning of an impending attack. It also relies on being able to operate land-based forces and surface ships from areas close to enemy territory and is predicated on the ability of U.S. forces to quickly dominate operations in all five domains of military operations—air, sea, land, space, and cyberspace.

In a conflict involving China or Russia, many elements of this concept of operations will face severe challenges. U.S. forces likely will not have air superiority over the battlespace in the opening days of a war. Military satellites will be under attack, disrupting reconnaissance; positioning, navigation, and timing; and communications. Air bases, land forces, and surface ships in the region will be attacked by large salvos of accurate missiles, making it

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difficult both to mount an effective defense and to reinforce the theater.

Toward a New Approach to Power Projection

As noted above, war-gaming conducted by RAND and DoD has been evaluating the performance of future U.S. forces in scenarios involving adversaries with advanced A2/AD capabilities. Insights derived from those efforts point to three key elements of a new approach to projecting power against these most capable adversaries.¹⁹

First, forward-based U.S. forces and infrastructure must be sufficiently robust to withstand initial attacks by enemy anti-access systems and provide essential enabling capabilities for early strike operations. In NATO/Europe, this means rebuilding a posture of land and air forces on the alliance’s eastern flank that is capable of confronting a combined arms Russian invasion. In both Europe and the Western Pacific, it means building a more-resilient network of bases through selective hardening, redundancy and dispersal, deception measures, and active defenses against cruise missiles; enhancing the resiliency of space-based capabilities for reconnaissance, communications, and positioning, navigation, and timing; and ensuring that operations can be effectively orchestrated in wartime even when command and control assets are under intensive attack.

Second, U.S. forces must find ways to detect, identify, track, and engage and damage key elements of the enemy’s operational center of gravity—its invading forces—from the outset of hostilities in circumstances in which the air, sea, land, space, and cyber domains are heavily contested. Even

with improvements to forward posture and capabilities, U.S. forces likely will not have time to defeat the enemy's principal threats to their operations in these domains prior to attacking its invading forces. Therefore, U.S. and allied forces must find ways to "reach into" contested areas of the battlespace in order to delay, disrupt, and ultimately defeat an attacking force.

For this, U.S. forces today have two important trump cards to play: heavy bombers and undersea platforms. The U.S. fleet of 96 combat-coded bombers—B-1s, B-2s, and B-52s—supplemented by aerial refueling aircraft, can operate from bases that lie beyond the range of Chinese and Russian conventionally armed ballistic missiles. If equipped with sufficient numbers of capable standoff weapons, these aircraft can bring sustained, accurate firepower to bear against naval vessels, C2 nodes, logistics and support facilities, and mechanized ground forces. U.S. submarines can evade detection and launch standoff weapons as well, although their weapons-carrying capacity is rather limited. Future generations of large, unmanned underwater vehicles have the potential to expand the attack capacity of the Navy's submersible fleet.

Third, provided these early strikes can disrupt and blunt the enemy's offensive thrusts, they can buy some time for other elements of the joint force to degrade key elements of the enemy's A2/AD complex and pave the way for follow-on operations to further attrit the enemy's forces. Dismantling the integrated air defense system would lay surface forces bare to observation and attack by penetrating aircraft and direct attack weapons. It would also enable U.S. fighter aircraft to keep enemy airborne reconnaissance platforms away from U.S. forces and bases. Further disrupting the enemy's command and control systems (e.g.,

through jamming and cyberattacks on theater- and tactical-level communications) would reduce the threat posed by its remaining A2/AD systems and facilitate effective operations to terminate the conflict on favorable terms.

Further analysis and experimentation are called for in order to determine the robustness of this new approach to projecting power. But it is known today that key elements of it are feasible, both operationally and technically, so that DoD need not wait to fully validate the overall concept before acquiring the types of capabilities needed to support it. It is also known that *today's force and the force that will be provided by the current program of record lack many of these essential capabilities*. Programmed stocks of standoff and other preferred munitions are seriously inadequate for wartime needs, for example. Too many of DoD's satellites lack the characteristics they need to survive and operate in the face of kinetic and nonkinetic attacks. Improved means for countering sophisticated, long-range SAM systems are needed. And even prosaic things to reduce the vulnerability of forces at forward bases, such as fuel bladders and expedient aircraft shelters, are lacking.²⁰

The challenges posed by even the most capable adversary states are not intractable. Military laboratories, defense industries, and warfighting experimentation centers are coming up with innovative ways to counter many parts of the A2/AD challenge. *With a fairly modest but sustained and predictable increase in funding for modernization, U.S. forces could begin putting into the field capabilities to enable a new approach to projecting power and defeating aggression.*²¹ That having been said, even with extensive modernization, U.S. forces should not expect to regain vis-à-vis the forces of China and Russia the level of overmatch that they enjoyed against the regional adversaries of the post-Cold War era. That is simply not realistic.

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But it is also not necessary. What *is* needed is a force with sufficient capability and capacity to cause enemy leaders to doubt their ability to prevail in a large-scale fight against the United States and its allies.

Priority Investment Areas

All four services have important roles to play in restoring U.S. power projection capabilities. The research and analysis documented here focused on air operations, and so this Perspective's findings with respect to investment priorities are limited largely to the air domain. The initiatives listed below do not represent a complete list of enhancements that are called for. Nor can this analysis support the claim that this set of enhancements is necessarily the most cost-effective way to restore U.S. power projection capabilities. There could be other, complementary approaches to achieving this goal. But the war-gaming and analysis on which this Perspective draws suggest strongly that, if successfully developed and fielded, these capabilities can “move the needle” quickly and significantly in a direction favorable to the United States. Collectively, capabilities such as these can enable the new, three-phased approach to power projection outlined above.

Every initiative on the list that follows meets three criteria:

1. It can make a significant improvement in the ability of the joint force to meet critical wartime objectives that are currently at high risk.
 2. The capability can begin being fielded within the time frame of the FY 2019–2023 Future Years Defense Program.
 3. The investment will contribute to filling important capability gaps across multiple scenarios and adversaries.
- **Accelerate development and procurement of standoff weapons (e.g., Joint Air-to-Surface Standoff Missile—Extended Range and Long-Range Anti-Ship Missile).** The bomber force can operate from beyond the reach of most Chinese and Russian precision-strike weapons and launch standoff weapons from beyond the range of advanced air defenses. This force can deliver on the order of 1,000 weapons per day on a sustained basis, but only if those weapons are procured and available.²²
 - **Accelerate development and procurement of a longer-range, fast-flying, SAM-killing missile (e.g., Advanced Anti-Radiation Guided Missile—Extended Range).** The primary weapon that U.S. forces have relied on for this role since the 1980s—the AGM-88 high-speed anti-radiation

missile—is badly outranged by the most-capable Russian and Chinese SAMs. It is imperative that U.S. air forces regain their ability to quickly and effectively attack the enemy’s integrated air defenses.

- **Ramp up procurement of passive protection measures for forward bases (e.g., expedient shelters, fuel bladders, airfield damage repair equipment and materiel, decoy aircraft, and other deception measures).** Analysis shows that such measures, in conjunction with active defenses, can significantly enhance force survivability and sortie generation.
- **Accelerate and expand planned fielding of modern cruise missile defenses (e.g., the Army’s Indirect Fire Protection Capability, Increment 2 [IFPC-2] system).** Russian and Chinese cruise missiles can inflict severe damage on airfields, command and control nodes, logistics concentrations, and other assets critical to joint and combined operations. IFPC-2 can greatly improve the ability of U.S. forces to defeat salvo attacks by modern cruise missiles.
- **Deploy or station two or three U.S. armored brigades and an Army fires brigade in or near the Baltic states. Stockpile munitions in theater adequate for 30 days of high-tempo land and air operations.**
- **Accelerate and expand development and procurement of guided area anti-armor weapons (e.g., Pre-Planned Product Improvement Sensor Fuzed Weapon in a powered dispenser).** In scenarios involving Russia, North Korea, and China or Taiwan, air forces are called upon to damage and destroy armored and mechanized ground

forces, yet they lack adequate inventories of weapons to do this effectively.

- **Accelerate development and fielding of more-robust space systems.** This might include building and launching constellations of satellites with greater degrees of maneuverability, redundancy, stealth, and other protection features. It might also mean doing more to exploit growing commercial capacity for space-based imaging and communications.
- **Accelerate the development and fielding of counterspace systems (especially nonkinetic systems, such as jamming and dazzling systems).**
- **Accelerate development and testing of a system for intercepting ballistic missiles in boost phase (e.g., the Airborne Weapons Layer [AWL] concept).** Kinetic, boost-phase intercept could be a key to defeating North Korean nuclear weapons. The AWL air-to-air missile would also greatly increase the reach of U.S. fighter aircraft for defense against cruise missile-carrying bombers.
- **Choose and acquire in numbers a light reconnaissance and attack aircraft (e.g., the AT-6 or A-29).** U.S. forces will be called upon to carry on the fight against violent extremist organizations for a generation or more. An all-fifth-generation fighter force is manifestly not optimal for this fight.

Moving forward on all of these initiatives at a responsible pace would require that approximately \$20 billion be added to the Air Force’s annual budget on a sustained basis.²³ If the departments of the Army and Navy were to receive similar increases, DoD’s topline

would rise by approximately \$60 billion, or 0.3 percent of the projected U.S. gross domestic product in FY 2023. This is, obviously, a considerable sum of money. But the strategic value of such an increase, if focused on the capabilities that most directly address

the primary challenges facing U.S. military operations abroad, would be incalculable. Surely, a failure to respond adequately to these challenges would, in time, have unavoidable consequences for U.S. security and well-being.

Notes

¹U.S. Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, Washington, D.C., 2018 (<https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>).

²Susanne V. Blume and Lauren Fish, "Overview of the 2019 President's Budget Request for Defense," Washington, D.C.: Center for a New American Security, February 15, 2018 (<https://www.cnas.org/publications/reports/overview-of-the-2019-presidents-budget-request-for-defense>).

³The classic formulation of this principle is in *NSC 68: United States Objectives and Programs for National Security*, the document that in 1950 set out the main elements of the Cold War strategy of containment. See Executive Secretary of the National Security Council, *A Report to the National Security Council on United States Objectives and Programs for National Security*, NSC 68, Washington, D.C., April 14, 1950, pp. 3–4 (https://www.trumanlibrary.org/whistlestop/study_collections/coldwar/documents/pdf/10-1.pdf).

⁴The Trump administration's National Security Strategy recognizes both the reality of today's "interconnected world" and the imperative for U.S. leadership internationally. See *National Security Strategy of the United States of America*, Washington, D.C.: The White House, December 2017, pp. 3 and 7 (<https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>).

⁵Some might argue that the first military priority should be to protect the homeland. This proves not to be a useful guide to force planning for two reasons: First, as U.S. strategy has long recognized, it would not be possible to secure U.S. interests at home if the nation were to lose the ability to influence events in important regions abroad. And second, operationally, defending U.S. airspace, waters, and territory from attack is, in the main, not as demanding as projecting power into Eurasia, so that homeland defense becomes, qualitatively, a lesser-included case of the demand for power projection capabilities.

⁶The National Defense Strategy and the National Security Strategy also rightly identify Iran as a state adversary that threatens important U.S. interests with military capabilities that must be factored into U.S. defense planning. For the purposes of this Perspective, the threats posed by Iran are treated largely as a lesser-included case of those posed by the other three state adversaries. See U.S. Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, Washington, D.C., 2018 (<https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>).

⁷For an astute assessment of the revisionist objectives of China, Russia, North Korea, and Iran and their implications for U.S. defense strategy, see Andrew F. Krepinevich, *Preserving the Balance: A U.S. Eurasia Defense Strategy*, Washington, D.C.: Center for Strategic and Budgetary Assessments, 2017, pp. 17–33. For a more detailed review of China's security strategy, see Geoff Dyer, *The Contest of the Century: The New Era of Competition with China—and How America Can Win*, New York: Vintage Books, 2014.

⁸For an overview of the ways in which the "competitive edge" of the U.S. armed forces has eroded, see "Secretary Mattis Remarks on U.S. Defense Strategy," C-SPAN, January 19, 2018 (<https://www.c-span.org/video/?439945-1/secretary-mattis-delivers-remarks-us-national-defense-strategy&start=850>).

⁹The director of DoD's Office of Operational Test and Evaluation judges that "The regional/theater ballistic missile defense system demonstrates a limited capability to defend the U.S. Pacific Command, U.S. European Command, and U.S. Central Command areas of responsibility for small numbers of medium- and intermediate-range ballistic missile threats (1,000 to 4,000 km), and a fair capability for short-range ballistic missile threats (less than 1,000 km range)" (U.S. Department of Defense, Director, Operational Test and Evaluation, *FY16 Ballistic Missile Defense Systems*, Washington, D.C., 2016).

¹⁰The range given is for the Russian-made SA-20 system (Federation of American Scientists, "S-400 SA-20 Triumph," June 16, 2000 [<https://fas.org/nuke/guide/russia/airdef/s-400.html>]).

¹¹International Institute for Strategic Studies, *The Military Balance 2014*, London, 2014, p. 236.

¹²David A. Shlapak, David T. Orletsky, Toy I. Reid, Murray Scot Tanner, and Barry Wilson, *A Question of Balance: Political Context and Military Aspects of the China-Taiwan Dispute*, Santa Monica, Calif.: RAND Corporation, MG-888-SRF, 2009, pp. 69–90 (<https://www.rand.org/pubs/monographs/MG888.html>).

¹³See David A. Shlapak, David T. Orletsky, Toy I. Reid, Murray Scot Tanner, and Barry Wilson, *A Question of Balance: Political Context and Military Aspects of the China-Taiwan Dispute*, Santa Monica, Calif.: RAND Corporation, MG-888-SRF, 2009, pp. 69–90 (<https://www.rand.org/pubs/monographs/MG888.html>). See also 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 (https://www.rand.org/pubs/research_reports/RR1253.html); and David Ochmanek, *Recommendations for a Future National Defense Strategy*, Santa Monica, Calif.: RAND Corporation, CT-484, November 30, 2017 (<https://www.rand.org/pubs/testimonies/CT484.html>).

¹⁴This arsenal could grow to between 20 and 100 weapons by 2020. See Arms Control Association, “Arms Control and Proliferation Profile: North Korea,” updated January 19, 2018 (<https://www.armscontrol.org/factsheets/northkoreaprofile>). See also Eleanor Albert, “North Korea’s Military Capabilities,” Council on Foreign Relations, last updated April 30, 2018 (<https://www.cfr.org/backgrounder/north-koreas-military-capabilities>).

¹⁵See David Ochmanek and Lowell H. Schwartz, *The Challenge of Nuclear-Armed Regional Adversaries*, Santa Monica, Calif.: RAND Corporation, MG-671-AF, 2008, pp. 37–44 (<https://www.rand.org/pubs/monographs/MG671.html>).

¹⁶The “great Scud hunt” in ODS provides one benchmark of U.S. capabilities to find and destroy mobile missiles. Analysis sponsored by the Air Force following that operation concluded that “few mobile Scud launchers were actually destroyed by Coalition aircraft or special forces during the war.” This is despite the facts that the coalition carried out roughly 1,500 strikes against targets associated with Iraq’s ballistic missile force and the missiles were deployed on relatively open terrain. See Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Summary Report*, U.S. Government Printing Office, 1993, pp. 83–89. Likewise, theater missile defense systems such as the Patriot and THAAD can be overwhelmed by salvo sizes that are achievable by North Korean forces. See Michael Elleman and Michael J. Zagurek, Jr., *THAAD: What It Can and Can’t Do*, Washington, D.C.: 38 North, March 10, 2016 (https://www.38north.org/wp-content/uploads/pdf/2016-03-10_THAAD-What-It-Can-and-Cant-Do.pdf).

¹⁷A recently convened panel of experts concluded that U.S. Special Operations Forces “maintain a continually high OPTEMPO [operational tempo] and the demand for SOF [special operations forces] is only likely to increase—but continuing the current pace of deployments risks burning out the force.” See Center for Naval Analyses, *Advice from SOF on the Use of SOF for the Next Administration*, Arlington, Va., October 2016, pp. 3–4. See also testimony before the Senate Armed Services Committee on May 4, 2017, by General Raymond Thomas, commander of U.S. Special Operations Command, who cited challenges in recruiting and retaining military personnel due to high rates of deployment among some units (“U.S. Special Operations Command,” C-SPAN, May 4, 2017 [<https://www.c-span.org/video/?427710-1/hearing-focuses-us-special-operations&live&start=5666>]).

¹⁸Prior to 2018, defense strategies of the post–Cold War period called for U.S. forces that were able to defeat aggression by two *regional* adversaries (such as Iran or North Korea) in overlapping time frames. The National Defense Strategy of 2018 calls for a force capable of defeating aggression by a major power—i.e., China or Russia—and simultaneously deterring opportunistic aggression elsewhere.

For a more complete assessment of the capabilities and capacity called for to meet the demands of the emergent security environment, see 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, 2017 (https://www.rand.org/pubs/research_reports/RR1782.html).

¹⁹For a detailed description of a new approach to power projection that is also designed to counter advanced adversaries and that includes many elements of the one presented here, see Andrew F. Krepinevich, Jr., *Archipelagic Defense: The Japan-U.S. Alliance and Preserving Peace and Stability in the Western Pacific*, Tokyo: The Sasakawa Peace Foundation, 2017 (https://www.spf.org/jpus-j/img/investigation/SPF_20170810_03.pdf).

²⁰David 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, 2017 (https://www.rand.org/pubs/research_reports/RR1782.html).

²¹David 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, 2017 (https://www.rand.org/pubs/research_reports/RR1782.html).

²²Air Force Technology, “B-52H Stratofortress,” undated (<https://www.airforce-technology.com/projects/b52/>); Air Force Technology, “B-1B Lancer Long-Range Strategic Bomber,” undated (<https://www.airforce-technology.com/projects/b-1b/>); Air Force Technology, “B-2 Spirit Stealth Bomber,” undated (<https://www.airforce-technology.com/projects/b2/>).

²³David 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, 2017, pp. 99–104 (https://www.rand.org/pubs/research_reports/RR1782.html).

About This Perspective

The 2018 National Defense Strategy signals the emergence of a recognition that the capabilities of U.S. military forces have been eroding vis-à-vis those of key adversaries, especially China and Russia. As a consequence, the United States' ability to deter aggression and intimidation, to assure allies, and to influence events in East Asia and Europe is being undermined. Unless steps are taken to reverse these trends, the United States could find itself playing a greatly diminished role internationally, irrespective of the strategies and intentions of this administration or its successors.

The passage by Congress of a two-year budget agreement for fiscal years 2019 and 2020 that substantially increases funding for the U.S. Department of Defense opens up the possibility of making investments in new capabilities and regional postures that can improve the ability of the United States to deter and defeat large-scale aggression by the most-threatening adversary states. This Perspective is intended to help inform upcoming budget decisions to enable future U.S. forces to meet the operational challenges confronting them. This Perspective should be of interest to those involved in developing and implementing U.S. defense strategy and in managing the evolution of U.S. military capabilities, forces, and posture.

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