In early June, the congressionally mandated National Defense Panel (NDP) will issue its independent assessment of the Department of Defense (DOD) 2014 Quadrennial Defense Review (QDR). The defense strategy outlined in the QDR does not break much conceptual new ground, since it largely reaffirms the strategic priorities identified in the 2012 Defense Strategic Guidance (DSG).1 In light of the very significant cuts to the defense budget triggered by the 2011 Budget Control Act, the 2014 QDR describes a defense strategy that is far more informed by the budget context than any previous version of the report, and thus provides more details about some of the difficult trade-offs and choices facing the DOD leadership.

As inevitably occurs with documents that result from an extensive bureaucratic process, however, the QDR still includes many broad statements that raise more questions than answers. It also offers little implementation guidance, partly because bureaucratic stakeholders who are disadvantaged by specific guidance often succeed in watering down the language contained in the final report.2

The legislation that established the QDR also established the independent NDP, whose 10 bipartisan defense experts are tasked with assessing the assumptions, strategy, findings, risks and force structure options contained in the QDR.3 The findings and recommendations of the NDP are read throughout DOD, Capitol Hill and the national security community, thus giving the panel a powerful opportunity to endorse or critique the QDR, highlight some of its key unanswered questions and offer new and innovative ways to implement its main principles. In particular, the NDP should draw attention to six critical strategic issues that the QDR did not address in sufficient detail: assessing the risks of defense budget cuts; restructuring the relationship between the active and reserve components so they work more effectively as a total force; rapidly regenerating ground forces if they are needed for future contingencies; reforming the defense enterprise; engaging with U.S. allies and partners even as many of their defense capabilities decline; and ensuring U.S. technological superiority.

1. Assessing the Risks of Defense Budget Cuts

The single most important contribution the NDP can make is to assess the risks posed by shrinking defense budgets. Defense strategy is frequently described as a balance of ends, ways and means, but it can also be understood as the art of assigning
risk. Since no strategy can ever ensure perfect security, effective strategies must prioritize some areas over others and thus accept greater risk for the lower priorities.

The 2014 QDR reaffirms the importance of “sustaining the global leadership role of the United States,” which has remained the cornerstone of the U.S. national security strategy since the end of World War II. However, the review clearly and repeatedly emphasizes that the ongoing cuts to the defense budget are increasing the risks of that strategy. The QDR states seven times that the requested defense budget for Fiscal Year (FY) 2015 will enable the U.S. military to execute that strategy, but those funding levels will involve “increased levels of risk for some missions.” Its warnings are even stronger for the years that follow, stating eight times that “the risks would grow significantly if sequestration-level cuts return in FY2016” and that if such cuts remain in place, “by 2021, the Joint Force would be too small and too outdated to fully implement our defense strategy.” Such unequivocal language sounds a very strong warning.

Yet even this language may be too conservative. The sequestration-level cuts remain the law of the land and will take effect automatically unless Congress acts to change them – as it did in December 2013, when the Bipartisan Budget Act restored $22.4 billion of the planned $54 billion in defense cuts for FY 2014 and restored an additional $9.4 billion for FY 2015. There is no assurance that such relief will be forthcoming in the future, and depending on future political and fiscal trends, Congress could even choose to enact deeper defense cuts. Under those conditions, the ability of the U.S. military to execute the defense strategy by the end of this decade would clearly be fraught.

Despite its dire warnings, the QDR offers few specifics about which missions would be most at risk, which parts of the defense strategy could not be implemented and the overall strategic consequences if these cuts remain in place or grow larger. As an independent body mandated by Congress, the NDP is perfectly placed to assess these crucial issues – to determine whether the QDR’s judgments about risk are justified and, if they are, to identify the most significant risks and provide ideas on how to mitigate them. This would help DOD by providing a baseline against which it can plan should it be required to execute budget cuts at or below sequestration levels in FY 2016 and beyond. But far more importantly, specifying what kinds of risks are involved and their consequences – essentially, in what areas the United States might not be able to sustain its global leadership role and why that matters – would help Congress and the American people make an informed judgment about whether these risks are worth running.

2. Restructuring the Relationship Between the Active and Reserve Components

During the past 13 years, the reserve component – which includes the Reserves of the four military services and the Coast Guard, as well as the Air National Guard and Army National Guard – has provided essential capabilities for the wars in Iraq and Afghanistan. The QDR notes that “More than a decade of sustained and large-scale use of reserve component Soldiers, Sailors, Airmen and Marines, conducting overseas contingency operations and supporting domestic emergencies has
transformed our reserve components to a force that is routinely and effectively engaged in a wide range of missions.”

These Guard and Reserve forces may be even more important in the coming decade than they have been in the last one, since they provide a cost-effective way to maintain U.S. military capacity and capabilities during a period of deep budget cuts. Active-duty forces are very expensive to maintain, because of the costs of training them to a high standard of readiness as well as the fact that military pay and benefits continue to rise. According to defense budget expert Todd Harrison, from 2001 to 2011 “the cost per person in the active-duty force increased by 46 percent, excluding war funding and adjusting for inflation.”

Guard and Reserve forces generally cost about the same as active forces when they are activated. But when they are not activated – which is the majority of the time – they cost approximately one-third as much, which translates into huge savings over unit life cycles. Moreover, they preserve critical capabilities at much lower cost – a major advantage compared with standing up entirely new units when wartime demands unexpectedly arise. Title 10 of the U.S. Code directs the reserve component to “provide trained units and qualified persons available for active duty in the armed forces … to fill the needs of the armed forces whenever more units and persons are needed than are in the regular components.” The planned cuts to active component end strength and force structure noted above make it even more important for the reserve component to maintain key capabilities necessary to hedge against the possibility of unanticipated future threats. The QDR explicitly acknowledges this by stating that DOD “will sustain reserve components that are capable of providing trained units and personnel to augment and complement their Active Components when needed.” Yet it does not provide any guidance about how this should happen. Such guidance is sorely needed, since tensions between the two components continue to escalate; senior DOD military and civilian officials are questioning the readiness and combat capabilities of Guard and Reserve forces, while serving and retired members of the reserve component are pushing back strongly.

The NDP can draw attention to this important gap by encouraging DOD to examine new ways to structure the relationship between the active and reserve components in order to preserve readiness and key capabilities while still reducing cost. This is a particularly urgent issue for the Army, as it faces the greatest active end-strength cuts and it has the largest Guard and reserve components. The NDP should particularly encourage the Army to develop new organizational models that structure the total force based on how quickly capabilities can and should deploy to the fight – including blended forces that contain elements from both the active and reserve components.

The NDP can draw attention to this important gap by encouraging DOD to examine new ways to structure the relationship between the active and reserve components in order to preserve readiness and key capabilities while still reducing cost.

Blended forces are a fairly controversial idea within the Army. In the 1980s, the Army employed a “round-out/round-up” concept that closely affiliated a number of Guard combat brigades with active duty combat divisions. In 1990 and 1991,
these formations were mobilized for Operations Desert Shield and Desert Storm, but ultimately did not join their active component divisions in the war. The reasons for this outcome included the fact that it took longer for the Guard units to achieve needed readiness levels than anticipated, as well as several policy decisions. This legacy remains a bitter point of contention between the active Army and the Army National Guard to this day. Given that 25 years have passed, however, and the valuable participation of the Guard in Iraq and Afghanistan, it is time to revisit the idea of blended active-reserve component units and consider ways to make this model more effective.

One such model would consider the total force, regardless of component, based on the timelines for which individual units and capabilities would be needed in future conflicts. Most of the capabilities that will be needed in the first weeks and months of any potential conflict should logically remain within the active force, and the Army should pay the high costs of keeping them ready to deploy on that quick timeline. But the Army should not pay that readiness premium for all of the active force. Some future conflicts will include enough strategic warning to increase readiness before hostilities begin. Even in cases of strategic surprise, however, strategic lift constraints will force U.S.-based forces to flow into the fight over time. Army forces that deploy starting four to six months after either warning or the start of the conflict could rely more heavily upon reserve component formations, although in a much different structure than today. When organized into blended units of active, Reserve and Guard formations, these later-deploying forces could leverage the best qualities of each component of the total force. These blended active and Reserve units would regularly train together to improve readiness and develop the relationships that facilitate fighting together in combat, while realizing significant savings over purely active-duty formations. Follow-on forces that deploy after the first 10 to 12 months of a conflict would largely come from the Guard or Reserve but would still include some active elements, to include those newly constituted after the conflict began.

Adopting some version of this model would maximize deployable capabilities across all Army forces, regardless of component, while simultaneously saving money by not having to pay the high readiness premium for forces that would deploy after several months’ notice. It would also greatly facilitate the Army’s charter to regenerate larger ground forces, as discussed next.

3. Rapidly Regenerating Ground Forces

The QDR and the accompanying FY 2015 defense budget request include significant cuts to Army end strength, which would shrink from 490,000 to somewhere between 440,000 and 450,000. If sequestration-level cuts continue in FY 2016 and beyond, Army end strength would shrink further, to 420,000, and Marine Corps end strength would decline from 182,000 to 175,000. These cuts are partly due to the need to find immediate and significant budget savings, but they are also consistent with a strategic choice first articulated in the 2012 DSG (and which is broadly reaffirmed by the QDR), which states that “U.S. forces will no longer be sized to conduct large-scale, prolonged stability operations.”

Yet even though scenarios that require large ground forces may not seem likely today, history suggests that U.S. forces may be called upon to conduct such missions at some point in the future. In August 2001, for example, no one would have predicted that within a few weeks, the United States would enter a war in Afghanistan that would last for 13 years. As former Secretary of Defense Robert Gates so succinctly expressed, “when it comes to predicting the nature and location of our next military engagements, since Vietnam, our record has been
perfect. We have never once gotten it right.”21 U.S. military forces have regularly been called upon to conduct all manner of missions in every corner of the globe, regardless of previous strategic and planning guidance.

The DSG hedges against cutting the Army too much by introducing the very important principle of reversibility (which has also been called regeneration). It states: “DoD will manage the force in ways that protect its ability to regenerate capabilities that might be needed to meet future, unforeseen demands, maintaining intellectual capital and rank structure that could be called upon to expand key elements of the force. … Accordingly, the concept of ‘reversibility’ … is a key part of our decision calculus.”22

This principle is particularly important for the Army. Any operation that requires unexpectedly large ground forces will first draw from the active and reserve components, which is yet another reason why maximizing their capabilities within declining budgets is so important. But depending on the scenario and particularly given potential or unexpected rotational requirements, the Army may also need to regenerate entirely new units. As it implements the end-strength cuts described above, it must find ways to preserve key elements of the force that would be needed to create these new units – the most important component of which is sustaining a designated cadre of the field-grade officers and noncommissioned officers who would be needed to lead such units.

Unfortunately, since the 2012 DSG first articulated the principle of reversibility or regeneration, DOD and the Army have done little apparent work to determine the best way to implement it. Reversibility was not mentioned in the July 2013 Strategic Choices and Management Review,23 and the QDR added little additional detail about what it might mean in practice.24 Then-Acting Deputy Secretary of Defense Christine Fox essentially acknowledged as much in a speech at the Army War College in early April: “ … our challenge, your challenge, is to plan now to regrow the army, even as you bring it down and how to reshape the army to support that growth in the future. We must determine what we need to retain in the smaller force to allow you to get to a larger force quickly, if necessary, when needed in the future.”25

The NDP has an important opportunity to further develop this critical principle. It should provide guidelines establishing the timelines to regenerate new ground forces, identify the most important capabilities that the Army must regenerate under varied scenarios and offer specific guidance on how to implement this idea in practice.

4. Reforming the Defense Enterprise

Every past QDR has emphasized the need to reform DOD in various ways, especially by making business practices more efficient and closing unnecessary bases and infrastructure. The 2014 QDR reaffirms these ideas but goes even further, rightly highlighting the urgency of these reforms as budgets tighten. The report clearly identifies the fundamental problem as “accelerating internal cost growth that threatens to be unsustainable in the future.”26 This problem plagues many areas, including acquisition and the costs of equipping individual service members, but its dramatic consequences can be seen most clearly in military personnel costs. The study by Todd Harrison mentioned above found that those costs grew by 46 percent between 2001 and 2011 (excluding war funding and adjusting for inflation), for reasons that include increasing health care costs, pay raises that were higher than requested and expanded benefits for both service members and their dependents. The study concluded that if they continue to grow at that rate, “military personnel costs will consume the entire defense budget by 2039.”27
Internal cost growth poses real problems under any conditions, but its effects become particularly pernicious as defense budgets decline and force increasingly difficult trade-offs between future military capabilities and current capacity. Every dollar spent maintaining an unnecessary base or wasted in a canceled acquisition program is a dollar that cannot be spent on readiness, training and end strength. A recent report from the Center for a New American Security found that reforms in seven key areas – all cuts to “tail” rather than “tooth” – could save between $340 billion and $490 billion during the next 10 years.\(^\text{28}\) Savings of this magnitude would offset most of the sequestration-level cuts – thus preserving key U.S. military capabilities – while simultaneously improving efficiency, performance and outcomes.

Every dollar spent maintaining an unnecessary base or wasted in a canceled acquisition program is a dollar that cannot be spent on readiness, training and end strength.

For this reason, the 2014 QDR devotes almost as many pages to rebalancing the defense enterprise as it devotes to the U.S. defense strategy and rebalancing the joint force. It offers specific recommendations on achieving efficiencies, improving buying power and financial management, reducing the civilian and contractor workforce, and initiating the base realignment and closure (BRAC) process. It also suggests some relatively minor adjustments to military pay and benefits, which DOD estimates could save $12 billion over five years and even more over time.\(^\text{29}\) The NDP can make two essential contributions to promoting needed defense reform. First, and perhaps most importantly, reiterating the urgency of these reforms can help build congressional support for those that require new legislation. Members of Congress have strong incentives to oppose some of these reforms, especially BRAC and changes to military compensation, because they generate strong opposition from affected constituents. Indeed, while defense experts widely agree that another round of BRAC is both necessary and desirable, Congress has blocked past BRAC proposals due to local economic and employment concerns – and early signs indicate that Congress is likely to reject DOD’s recent request for a BRAC round in 2017.\(^\text{30}\) Similarly, Congress repealed the modest caps on military retirement pay included in the December 2013 Bipartisan Budget Act approximately two months later, after intense pressure from military and veteran’s organizations, as well as current service members, retirees and family members.\(^\text{31}\)

Building support for these reforms on the Hill in the face of such strong opposition will be no easy task. But as an independent, congressionally mandated panel, the NDP must frame the gravity of these reforms as a national security issue: Failing to adopt them would directly reduce U.S. military capabilities and readiness, an unnecessary trade-off that would diminish U.S. military power and increase the risk of failure and casualties in the next conflict.

Second, the NDP can help identify ways that DOD can save money in areas that do not require congressional approval. DOD can undertake many reforms with the authorities it already possesses, particularly when it comes to efficiencies and internal business practices. The QDR identifies some of these reforms: reducing headquarters staffs and budgets, incentivizing productivity and innovation, eliminating unproductive processes and
bureaucracy and improving the professionalism of the total acquisition workforce. Most of these ideas are not new, having been identified in past QDRs, DOD guidance and independent analyses, but they are extremely difficult to implement. The NDP can help DOD by identifying creative and practical implementation strategies to turn these essential reforms into reality.

5. Engaging With U.S. Allies and Partners
Maintaining close relationships with U.S. allies and partners is a critical element of sustaining U.S. global leadership, which the QDR identifies as the key objective of the U.S. defense strategy. The QDR asserts that DOD is developing ways to cooperate more deeply with close allies and partners and that “we will thoroughly reflect the evolving capacity of our allies and partners in our defense planning efforts.”

Yet there are two potential challenges in doing so. First, many U.S. allies and partners lack the capabilities needed to address the range of potential threats that they face. In Asia, for example, U.S. allies and partners are growing increasingly concerned about what they see as aggressive Chinese behavior. Although many have increased their defense spending in recent years, they will still rely on U.S. military capabilities for any high-end contingencies. Thus they are quite concerned about the extent to which the declining U.S. defense budget will reduce those capabilities and undermine the U.S. commitment to global leadership. In other parts of the world, U.S. partners and allies are also reducing their defense budgets, which will make it even harder for them to provide for their own security as the United States reduces its own military capacity. Defense capabilities and spending among the European NATO members, for example, have been steadily eroding during the past two decades. Their defense spending has declined by 20 percent since the end of the Cold War, and, according to NATO data, it declined by almost 6.6 percent between 2009 and 2013 alone. The total number of military personnel among the European NATO members fell even further, by 27 percent between 1990 and 2000, and then by another 22 percent between 2000 and 2013. The resulting reduction in military capabilities means that they will depend even more on U.S. military capacity for large or high-end operations – even as that capacity declines.

Second, as the chairman of the Joint Chiefs of Staff, Martin E. Dempsey, notes in his assessment of the QDR, the shrinking U.S. force structure may make it more difficult for the United States to help build new partners. The QDR warns that sequestration-level budgets would threaten the ability of the United States to remain engaged with both traditional allies and new partners. It makes conflict prevention – a key peacetime U.S. military task – much more difficult. Effective military-to-military engagements around the world help build capacity and serve as a bulwark against instability – a much-desired outcome in a world where the U.S. military will field smaller active forces with reduced forward stationing.

While the NDP cannot and should not explicitly rank countries where engagement should be a top U.S. priority, it can help outline what a realistic partnership strategy should look like. If the United States must cut back on some engagement activities, which ones are the most important to prioritize in different regions of the world? If the United States needs to cut back on joint exercises and training in Europe, as the QDR warns might be the case, which types of exercises and training provide the most value to the United States, and why? The NDP can help identify initiatives the United States should be encouraging in different partners and diverse regions based upon threats and U.S. interests. It might suggest creative ways to use
sources of U.S. leverage, including but not limited to the Foreign Military Sales and Foreign Military Financing programs, to further these objectives. By raising these and other important questions and offering some proposed solutions, the NDP can help DOD get the most value and benefit from the engagement activities that do continue.

6. Ensuring U.S. Technological Superiority
Maintaining technological superiority over potential adversaries has been a cornerstone of U.S. defense strategy since the end of World War II. Faced with an opponent during the Cold War whose conventional military forces dwarfed those of the Western powers, the United States chose to leverage technology to maintain qualitatively superior forces. After the Cold War, continued U.S. military technological dominance seemed almost assured, since the United States no longer faced a technologically advanced adversary or peer competitor.41

Yet maintaining that technological superiority can no longer be taken for granted. During the past two decades, global technologies have developed at unprecedented and accelerating speed. Trends such as the rise of “big data,” additive manufacturing (also called 3D printing), the “Internet of Things,” social media and autonomous technologies are transforming the ways in which people interact with technology and with each other – and thus may also transform warfare in ways that are difficult to anticipate.42

The QDR identifies leveraging technology as a key U.S. comparative advantage today and in the future. It asserts that the United States will remain a global leader in developing and using technology43 and that DOD “must ensure that technological superiority is maintained in areas most critical to meeting current and future military challenges.”44 Yet it also acknowledges that this will be increasingly difficult. Potential high-end adversaries are gaining advanced technologies that counter U.S. strengths in areas such as stealth, space and autonomy, and the increasing spread of technology offers new ways for both state and non-state actors to pursue asymmetric strategies against U.S. advantages.45 In his assessment of the QDR, Chairman Dempsey explicitly notes that he expects the U.S. technology edge to erode in the next 10 years.46

Technology is not a panacea, of course. In the 1990s, for example, ideas such as the revolution in military affairs and network-centric warfare led to unrealistic assumptions about what technology could achieve, which in turn led to a number of failed operational concepts (such as “shock and awe”) and acquisition programs (most notably the Army’s Future Combat System). The key challenge now facing DOD is not to find ways for technology to replace the human factor in war, but to craft ways for technology and people to work effectively together to achieve capabilities that neither can achieve alone.

The NDP is a powerful platform that should highlight this crucial challenge and identify particular areas where technology investments might prove most beneficial. But it should also reaffirm that maintaining U.S. technological superiority requires substantial investments in research and development, and the basic science research from which most breakthrough capabilities emerge. Most of
this type of research occurs in the civilian world, but funding for basic research often comes from federal grants that are growing increasingly scarce. Senior DOD officials should publicly articulate why funding such research is so important for national security, but they must also protect DOD’s own investments in these areas as well.\textsuperscript{47} Research funds are easy targets for budget cutters in tight fiscal environments, but are absolutely critical to ensuring that DOD has the capabilities necessary to fight and win the nation’s future wars.

\textbf{Conclusion}

The 2014 QDR outlines a strategy for DOD as it emerges from 13 years of continuous war and starts rebalancing its force structure and capabilities to address new and emerging threats, while sequestration-level defense cuts simultaneously shrink the resources available to do so. In order for the U.S. military to remain capable of executing its global responsibilities, policymakers will need to develop creative and innovative ways of maximizing military capabilities with fewer resources and a much smaller force. The QDR provides a promising start in this direction, but does not go far enough.

As the NDP undertakes its congressionally mandated task of assessing the 2014 QDR, it will have a powerful public platform to promote bold and creative ideas that are unconstrained by DOD bureaucratic politics and compromises. By highlighting the six critical strategic issues discussed above and identifying some ways to address them, the NDP can help DOD with the difficult task of implementing the ideas in the QDR while also stimulating an important congressional and public debate about the future of U.S. defense strategy.

\textit{Dr. Nora Bensahel is Senior Fellow and Co-Director of the Responsible Defense Program at the Center for a New American Security.}

\textbf{ENDNOTES}


2. One notable exception to this generalization is the detailed section called “Main Elements of Planned U.S. Force Structure and End Strength, FY [Fiscal Year] 2019,” which provides very specific guidance for the Army, Navy, Marines, Air Force, special operations forces, strategic nuclear forces and cyber forces. Yet this guidance is clearly tied to the president’s defense budget request for FY 2015, which was submitted on the same day that the QDR was released. This has caused some controversy, since the QDR is required by law to be independent of and unconstrained by the president’s defense budget request. U.S. Rep. Buck McKeon, R-Calif., who chairs the House Armed Services Committee, has introduced legislation to require the Department of Defense to rewrite the QDR because it is “clearly budget driven,” among other reasons. See Department of Defense, \textit{Quadrennial Defense Review} 2014 (March 4, 2014), 39-41; 10 U.S.C. § 118 b(4); “Quadrennial Defense Review”; “Chairman McKeon Rejects QDR,” House Armed Services Committee Press Release, March 4, 2014; and Marcus Weisgerber, “McKeon Wants DoD to Redo QDR,” \textit{Defense News}, May 5, 2014.


7. Ibid., v, vi, xiii, 13, 22, 39, 53 and 56. The quotation on 39 omits the words “the risks.”

8. Ibid., xiv. A very similar statement appears on 56.


10. The FY 2015 budget submission does estimate how sequestration-level funding would affect service appropriation levels, force structure, modernization, operations and maintenance accounts, and military construction. Yet like the QDR, this report does not take the next step and examine what strategic risks may result from such cuts. See Department of Defense, \textit{Estimated Impacts of Sequestration-Level Funding – Fiscal Year 2015 Defense Budget} (April 2014).

12. The growth in military pay and benefits is discussed further below, in the section on reforming the defense enterprise. Todd Harrison, “Rebalancing Military Compensation: An Evidence-Based Approach” (Center for Strategic and Budgetary Assessments, 2012), i.


14. 10 U.S.C. § 10102, “Purpose of Reserve Components.”


18. Some individual and small, specialized reserve and Guard units might also fall within this category.


24. The QDR simply states, “We will protect the ability to regenerate capabilities that might be needed to meet future demands.” Department of Defense, *Quadrennial Defense Review* 2014, 19.

25. Acting Deputy Secretary of Defense Christine H. Fox, “Remarks by Acting Deputy Secretary of Defense Christine Fox at the Army War College, Carlisle Barracks, Pennsylvania” (Carlisle, PA, April 7, 2014).


27. This also assumes that the defense budget remains flat with inflation. See Harrison, “Rebalancing Military Compensation: An Evidence-Based Approach,” i. Emphasis added.

28. These seven areas are redundant overhead, layering and workforce; inefficient business practices; excessive acquisition costs and overruns; excess infrastructure, installations and management costs; unaffordable increases in cash compensation; unsustainable growth of military retirement costs; and escalating military health care costs. See David Barno, Nora Bensahel, Jacob Stokes, Joel Smith and Katherine Kidder, “The Seven Deadly Sins of Defense Spending” (Center for a New American Security, June 2013).


33. Ibid., iv and 12.

34. Ibid., 24.


37. Ibid., 10.


39. Ibid., 54.
About the Center for a New American Security

The mission of the Center for a New American Security (CNAS) is to develop strong, pragmatic and principled national security and defense policies. Building on the expertise and experience of its staff and advisors, CNAS engages policymakers, experts and the public with innovative, fact-based research, ideas and analysis to shape and elevate the national security debate. A key part of our mission is to inform and prepare the national security leaders of today and tomorrow.

CNAS is located in Washington, and was established in February 2007 by co-founders Kurt M. Campbell and Michèle A. Flournoy. CNAS is a 501(c)3 tax-exempt nonprofit organization. Its research is independent and non-partisan. CNAS does not take institutional positions on policy issues. The views expressed in this report are those of the authors and do not represent the official policy or position of the Department of Defense or the U.S. government.

© 2014 Center for a New American Security. All rights reserved.

Contacts

Liz Fontaine
Acting Director of External Relations and Creative Director
lfontaine@cnas.org, 202.457.9423

JaRel Clay
Communications Associate
jclay@cnas.org, 202.457.9410

40. Ibid., 55.


42. Brimley, FitzGerald and Sayler identify four potential areas where advanced technologies may affect warfare and the U.S. defense strategy: changing the balance between offense and defense; quantity becoming more important than quality; altering the escalation ladder; and when and how humans are involved in decisionmaking. Ibid., 19-21.


44. Ibid., 25.

45. Ibid., 3, 6 and 7.

46. Ibid., 61.

47. DOD’s budget request for FY 2015 does largely protect science and technology (S+T) funding through the Future Years Defense Program (which extends through FY 2019). It requests $11.5 billion for S+T in FY 2015 and slightly increases that amount each year until it reaches $12.5 billion in FY 2019 (though that increase may not be enough to keep pace with inflation). Most notably, DOD would preserve most of that funding even if it were required to meet sequestration-level budgets; the amount would shrink by $0.4 billion a year, for a total of 2.6 percent over the five-year period – a very small cut compared with those facing many other DOD accounts. Department of Defense, Estimated Impacts of Sequestration-Level Funding – Fiscal Year 2015 Defense Budget, 4-1 and 4-2.