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A Shift in the International Security Environment: Potential Implications for Defense—Issues for Congress

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Summary

World events have led some observers, starting in late 2013, to conclude that the international security environment has undergone a shift from the familiar post-Cold War era of the past 20 to 25 years, also sometimes known as the unipolar moment (with the United States as the unipolar power), to a new and different situation that features, among other things, renewed great power competition with China and Russia and challenges by these two countries and others to elements of the U.S.-led international order that has operated since World War II.

A previous change in the international security environment—the shift in the late 1980s and early 1990s from the Cold War to the post-Cold War era—prompted a broad reassessment by the Department of Defense (DOD) and Congress of defense funding levels, strategy, and missions that led to numerous changes in DOD plans and programs. Many of these changes were articulated in the 1993 Bottom-Up Review (BUR), a reassessment of U.S. defense plans and programs whose very name conveyed the fundamental nature of the reexamination that had occurred.

The shift in the international security environment that some observers have identified—from the post-Cold War era to a new situation—has become a factor in the debate over the size of the U.S. defense budget in coming years, and over whether the Budget Control Act (BCA) of 2011 (S. 365/P.L. 112-25 of August 2, 2011) as amended should be further amended or repealed. Additional emerging implications of the shift include a new or renewed emphasis on the following in discussions of U.S. defense strategy, plans, and programs:

- grand strategy and geopolitics as part of the context for discussing U.S. defense budgets, plans, and programs;
- U.S. and NATO military capabilities in Europe;
- capabilities for countering so-called hybrid warfare and gray-zone tactics employed by countries such as Russia and China;
- capabilities for conducting so-called high-end warfare (i.e., large-scale, high-intensity, technologically sophisticated warfare) against countries such as China and Russia;
- maintaining U.S. technological superiority in conventional weapons;
- nuclear weapons and nuclear deterrence;
- speed of weapon system development and deployment as a measure of merit in defense acquisition policy; and
- minimizing reliance in U.S. military systems on components and materials from Russia and China.

The issue for Congress is whether to conduct a broad reassessment of U.S. defense analogous to the 1993 Bottom-Up Review (BUR), and more generally, how U.S. defense funding levels, strategy, plans, and programs should respond to changes in the international security environment. Congress's decisions on these issues could have significant implications for U.S. defense capabilities and funding requirements.

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Introduction

World events have led some observers, starting in late 2013, to conclude that the international security environment has undergone a shift from the familiar post-Cold War era of the past 20 to 25 years, also sometimes known as the unipolar moment (with the United States as the unipolar power), to a new and different situation that features, among other things, renewed great power competition with China and Russia and challenges by these two countries and others to elements of the U.S.-led international order that has operated since World War II.¹

A previous change in the international security environment—the shift in the late 1980s and early 1990s from the Cold War to the post-Cold War era—prompted a broad reassessment by the Department of Defense (DOD) and Congress of defense funding levels, strategy, and missions that led to numerous changes in DOD plans and programs. Many of these changes were articulated in the 1993 Bottom-Up Review (BUR), a reassessment of U.S. defense plans and programs whose very name conveyed the fundamental nature of the reexamination that had occurred. A new shift in the international security environment could similarly have a number of significant implications for U.S. defense plans and programs.

The issue for Congress is whether to conduct a broad reassessment of U.S. defense analogous to the 1993 Bottom-Up Review (BUR), and more generally, how U.S. defense funding levels, strategy, plans, and programs should respond to changes in the international security environment. Congress's decisions on these issues could have significant implications for U.S. defense capabilities and funding requirements.

This report focuses on defense-related issues and does not discuss potential implications of a shift in the international security environment for other policy areas, such as foreign policy and diplomacy, trade and finance, energy, and foreign assistance. Future CRS reports may address the potential implications of a shift in the international security environment for these other policy areas or address the U.S. role in the international security environment from other analytical perspectives.

Background

Previous International Security Environments

Cold War Era

The Cold War era, which is generally viewed as lasting from the late 1940s until the late 1980s/early 1990s, was generally viewed as a strongly bipolar situation featuring two superpowers—the United States and the Soviet Union—engaged in a political, ideological, and military competition for influence across multiple regions. The military component of that competition was often most acutely visible in Europe, where the U.S.-led NATO alliance and the

¹ The term international order generally means the combination of laws, rules, norms, and supporting institutions that shapes and helps govern international politics and economics. The U.S.-led international order established at the end of World War II, also known as the liberal international order, can be characterized as one that features, among other things, a reliance on international law rather than force or coercion as the preferred means of settling international disputes, an emphasis on human rights, an open international trading system that attempts to evolve in the direction of free trade, and the treatment of the world's oceans, international airspace, outer space, and cyberspace as international commons.

Soviet-led Warsaw Pact alliance faced off against one another with large numbers of conventional forces and theater nuclear weapons, backed by longer-ranged strategic nuclear weapons.

Post-Cold War Era

The post-Cold War era, which is generally viewed as having begun in the early 1990s, tended toward a unipolar situation, with the United States as the world's sole superpower. The Warsaw Pact had disbanded, the Soviet Union had dissolved into Russia and the former Soviet republics, and neither Russia, China, nor any other country was viewed as posing a significant challenge to either the United States' status as the world's sole superpower or the U.S.-led international order. Compared to the Cold War, the post-Cold War era generally featured reduced levels of overt political, ideological, and military competition among major states. Following the terrorist attacks of September 11, 2001 (aka 9/11), the post-Cold War era was additionally characterized by a strong focus (at least from a U.S. perspective) on countering transnational terrorist organizations that had emerged as significant non-state actors, particularly Al Qaeda.

New International Security Environment

Some Observers Conclude a Shift Has Occurred

World events—including Chinese actions in the East and South China Seas since November 2013² and Russia's seizure and annexation of Crimea in March 2014³—have led some observers, starting in late 2013, to conclude that the international security environment has undergone a shift from the familiar post-Cold War era of the last 20 to 25 years, also sometimes known as the unipolar moment (with the United States as the unipolar power), to a new and different situation that features, among other things, renewed great power competition with China and Russia and challenges by these two countries and others to elements of the U.S.-led international order that has operated since World War II.⁴

² For discussions of these actions, see CRS Report R42784, *Maritime Territorial and Exclusive Economic Zone (EEZ) Disputes Involving China: Issues for Congress*, by (name redacted) , and CRS Report R42930, *Maritime Territorial Disputes in East Asia: Issues for Congress*, by (name redacted), (name redacted), and (name redacted)

³ For discussion Russia's seizure and annexation of Crimea, see CRS Report RL33460, *Ukraine: Current Issues and U.S. Policy*, by (name redacted) .

⁴ See, for example, Walter Russell Mead, "The End of History Ends," *The American Interest*, December 2, 2013; Paul David Miller, "Crimea Proves That Great Power Rivalry Never Left Us," *Foreign Policy*, March 21, 2014; Walter Russell Mead, "The Return of Geopolitics," *Foreign Affairs*, May/June 2014; Robert Kagan, "Superpowers Don't Get to Retire," *New Republic*, May 26, 2014; James Kitfield, "The New Great Power Triangle Tilt: China, Russia Vs. U.S.," *Breaking Defense*, June 19, 2014; Lilia Shevtsova, "Putin Ends the Interregnum," *The American Interest*, August 28, 2014; David E. Sanger, "Commitments on Three Fronts Test Obama's Foreign Policy," *New York Times*, September 3, 2014; Steven Erlanger, "NATO's Hopes for Russia Have Turned to Dismay," *New York Times*, September 12, 2014; Richard N. Haass, "The Era of Disorder," *Project Syndicate*, October 27, 2014; Bruce Jones, "What Strategic Environment Does the Transatlantic Community Confront?" German Marshall Fund of the United States, Policy Brief, January 15, 2015, 5 pp.; Chester A Crocker, "The Strategic Dilemma of a World Adrift," *Survival*, February-March 2015: 7-30; Robert Kagan, "The United States Must Resist A Return to Spheres of Interest in the International System," Brookings Institution, February 19, 2015; Richard Fontaine, "Salvaging Global Order," *The National Interest*, March 10, 2015; Barry Pavel and Peter Engelke with Alex Ward, *Dynamic Stability, US Strategy for a World in Transition*, Washington, Atlantic Council, April 2015, 57 pp.; Stewart Patrick and Isabella Bennett, "Geopolitics Is Back—and Global Governance Is Out," *The National Interest*, May 12, 2015; "Rise of the Regional Hegemons," *Wall Street Journal*, May 25, 2015; Frank G. Hoffman and Ryan Neuhard, "Is the World Getting Safer—or Not?" *Foreign Policy Research Institute*, June 2015; James Kitfield, "Requiem For The Obama Doctrine," *Breaking Defense*, July 6, 2015; Mathew Burrows and Robert A. Manning, "America's Worst Nightmare: Russia and China Are (continued...)"

In remarks on February 2, 2016, previewing DOD's proposed FY2017 budget (which was submitted to Congress a week later, on February 9), Secretary of Defense Ashton Carter stated:

Let me describe the strategic thinking that drove our budget decisions. First of all, it's evident that America is still, today, the world's foremost leader, partner and underwriter of stability and security in every region across the globe—as we have been since the end of World War II.

And as we fulfill this enduring role, it's also evident that we're entering a new strategic era. Context is important here. A few years ago, following over a decade when we were focused, of necessity, on large scale counter insurgency operations in Iraq and Afghanistan, DOD began embarking on a major strategy shift to sustain our lead in full spectrum war fighting.

While the basic elements of our resulting defense strategy remain valid, it has also been abundantly clear to me over the last year that the world has not stood still since then. The emergence of ISIL and the resurgence of Russia being just a couple of the examples.

This is reflective of a broader strategic transition underway, not unlike those we've seen in history following the end of other major wars.

Today's security environment is dramatically different than the one we've been engaged in for the last 25 years and it requires new ways of thinking and new ways of acting.⁵

A November 22, 2015, press report states:

The United States must come to grips with a new security environment as surging powers like Russia and China challenge American power, said Deputy Defense Secretary Robert Work.

"Great power competition has returned," he said Nov. 20 during a panel discussion at the Halifax International Security Forum.

"Russia is now a resurgent great power and I would argue that its long term prospects are unclear. China is a rising great power. Well, that requires us to start thinking more globally and more in terms of competition than we have in the past 25 years," Work said

During the 1990s and the early 2000s, the United States enjoyed a period of dominance that gave it an "enormous freedom of action," Work said. "I would argue that over that period of time ... our strategic muscles atrophied."

Work defined a great power as one that can engage with conventional forces and that has a nuclear deterrent that can survive a first strike.

(...continued)

Getting Closer," *National Interest*, August 24, 2015; Robert Farley, "Yes, America's Military Supremacy Is Fading (And We Should Not Panic)," *National Interest*, September 21, 2015; John McLaughlin, "The Geopolitical Rules You Didn't Know About Are Under Siege," *Ozy*, November 10, 2015; John E. McLaughlin, "US Strategy and Strategic Culture from 2017," *Global Brief*, February 19, 2016; H.R. McMaster, "Probing for Weakness," *Wall Street Journal*, March 23, 2016; Zbigniew Brzezinski, "Toward a Global Realignment," *The American Interest*, April 17, 2016; Michael J. Boyle, "The Coming Illiberal Order," *Survival*, Vol. 58, April-May 2016: 35-66; Michael Mandelbaum, "America in a New World," *The American Interest*, May 23, 2016.

Some other observers see the emergence of a medieval- or feudal-like situation. See, for example, Brad Allenby, "The Return to Medievalism," *Slate*, March 18, 2015; Steven Metz, "Emerging Neo-Feudal World Leaving U.S., Global Security Behind," *World Politics Review*, May 29, 2015. See also Matt Thompson, "UN's Purpose Questioned in a 'Post-Nation' World," *Defense One*, July 1, 2015.

⁵ Remarks by Secretary Carter on the Budget at the Economic Club of Washington, DC, February 2, 2016, accessed March 30, 2016, at <http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/648901/remarks-by-secretary-carter-on-the-budget-at-the-economic-club-of-washington-dc>.

Both Russia and China are challenging the order that has been prevalent since the end of World War II, he said. The United States will have to compete and cooperate with them.

“I believe what is happening in the United States is we’re now trying to rebuild up our strategic muscles and to rethink in terms of global competitions and I believe the next 25 years will see a lot of give and take between the great powers,” he said.⁶

Some Emerging Features of the New Environment

Observers who conclude that the international security environment has shifted to a new situation generally view the new period not as a bipolar situation (like the Cold War) or a unipolar situation (like the post-Cold War era), but as a situation characterized in part by renewed competition among three major world powers—the United States, China, and Russia. Other emerging characteristics of the new international security situation as viewed by these observers include the following:

- renewed ideological competition, this time against 21st-century forms of authoritarianism in Russia, China, and other countries;⁷

⁶ Yasmin Tadjdeh, “Work: ‘Great Power Competition’ Has Returned,” *National Defense*, November 22, 2015. See also Andrew Clevenger, “Work: Future Includes Competition Between US, Great Powers,” *Defense News*, November 20, 2015. Ellipsis as in original. Similarly, in a December 14, 2015, speech, Deputy Secretary Work stated:

I firmly believe that historians will look back upon the last 25 years – I actually snap that 25 years between May 12, 1989, when President Bush said containment would no longer be the lens through which the defense program was built. That was the end of the Cold War for all intents and purposes for defense planning, even though it took a couple of years for the Soviet Union to finally implode.

And I'd look in December 2013, that's when China started to do its land reclamation project in the South China Sea and in March 2014, Russia illegally annexed Crimea and started to send its troops and support separatists in east Ukraine.

So that 25-year period, I believe, is remarkable and is unlike any other period in the post-Westphalian era, because during that period, the United States reigned supreme as the only world's great power and the sole military superpower. It gave us enormous freedom of action.

But the circumstance is now changing. The unipolar world is starting to fade and we enter a more multipolar world, in which U.S. global leadership is likely to be increasingly challenged.

So among the most significant challenges in this 25 years, and one in my view that promises to be the most stressing one, is the reemergence of great power competition.

Now, for the purpose of this discussion and for the purposes of building a defense program which is focused on potential adversary capabilities, not necessarily intentions, I'll borrow John Mearsheimer's definition of a great power: A state having sufficient military assets to put up a serious fight in an all-out conventional war against the dominant power—that would be the United States—and possessing a nuclear deterrent that could survive a first strike against it.

And by that narrow definition, getting away from what are their economic peers or what is the attractiveness of their soft power and their stickiness, from a defense program perspective, if Russia and China are not yet great powers, they're well on their ways to being one.

(Deputy Secretary of Defense Speech, CNAS Defense Forum, As Delivered by Deputy Secretary of Defense Bob Work, JW Marriott, Washington, D.C., December 14, 2015, accessed December 21, 2015, at <http://www.defense.gov/News/Speeches/Speech-View/Article/634214/cnas-defense-forum>.)

⁷ See, for example, Gideon Rachman, “The West Has Lost Intellectual Self-Confidence,” *Financial Times*, January 5, 2015; Garry Kasparov, “The Global War on Modernity,” *Wall Street Journal*, January 20, 2015; Anna Borshchevskaya, “Moral Clarity Is Needed In Countering Anti-Western Propaganda,” *Forbes*, March 14, 2015; Ellen Bork, “Democracy in Retreat,” *World Affairs Journal*, May 11, 2015; Christopher Walker, “The New Containment: Undermining Democracy,” *World Affairs Journal*, May/June 2015.

- the promotion in China and Russia through their state-controlled media of nationalistic historical narratives emphasizing assertions of prior humiliation or victimization by Western powers, and the use of those narratives to support revanchist or irredentist foreign policy aims;
- the use by Russia and China of new forms of aggressive or assertive military and paramilitary operations—called hybrid warfare or ambiguous warfare, among other terms, in the case of Russia’s actions, and called salami-slicing tactics or gray-zone warfare, among other terms, in the case of China’s actions—to gain greater degrees of control of areas on their peripheries;
- challenges by Russia and China to key elements of the U.S.-led international order, including the principle that force or threat of force should not be used as a routine or first-resort measure for settling disputes between countries, and the principle of freedom of the seas (i.e., that the world’s oceans are to be treated as an international commons); and
- additional features alongside those listed above, including:
 - continued regional security challenges from countries such as Iran and North Korea;
 - a continuation of the post-Cold War era’s focus (at least from a U.S. perspective) on countering transnational terrorist organizations that have emerged as significant non-state actors (now including the Islamic State organization, among other groups); and
 - weak or failed states, and resulting weakly governed or ungoverned areas that can contribute to the emergence of (or serve as base areas or sanctuaries for) non-state actors, and become potential locations of intervention by stronger states, including major powers.

In his February 2, 2016, remarks previewing DOD’s proposed FY2017 budget, Secretary Carter stated that for the United States, the international security environment poses five challenges—Russia, China, North Korea, Iran, and transnational terrorism:

I’ve talked with President Obama about this a great deal over the last year and as a result, we have five, in our minds, evolving challenges that have driven the focus of the Defense Department’s planning and budgeting this year.

Two of these challenges reflect a return to great power of competition. First is in Europe, where we’re taking a strong and balanced approach to deter Russian aggression, and we haven’t had to worry about this for 25 years. While I wish it were otherwise, now we do. Second is in the Asia-Pacific, where China is rising and where we’re continuing and will continue our rebalance, so-called, to maintain the stability in the region that we have underwritten for 70 years and that’s allowed so many nations to rise and prosper and win. That’s been our presence.

Third challenge is North Korea, a hardy perennial, a threat to both us and to our allies, and that’s why our forces on the Korean Peninsula remain ready every single day, today, tomorrow, to, as we call it, fight tonight.

Iran is the fourth challenge, because while the nuclear deal was a good deal and doesn’t limit us in the Defense Department in any way, none of its provisions affect us or limit us, we still have to counter Iran’s malign influence against our friends and allies in the region, especially Israel.

And challenge number five is our ongoing fight to defeat terrorism and especially ISIL, most immediately in its parent tumor in Iraq and Syria, and also, where it is metastasizing

in Afghanistan, Africa and elsewhere. All the time, we protect—all the while, we're protecting our homeland and our people....

DOD must and will address all five of those challenges as part of its mission to defend our people and defend our country.⁸

The June 2015 National Military Strategy released by DOD states:

Since the last National Military Strategy was published in 2011, global disorder has significantly increased while some of our comparative military advantage has begun to erode. We now face multiple, simultaneous security challenges from traditional state actors and transregional networks of sub-state groups—all taking advantage of rapid technological change. Future conflicts will come more rapidly, last longer, and take place on a much more technically challenging battlefield. They will have increasing implications to the U.S. homeland....

Complexity and rapid change characterize today's strategic environment, driven by globalization, the diffusion of technology, and demographic shifts....

Despite these changes, states remain the international system's dominant actors. They are preeminent in their capability to harness power, focus human endeavors, and provide security. Most states today—led by the United States, its allies, and partners—support the established institutions and processes dedicated to preventing conflict, respecting sovereignty, and furthering human rights. Some states, however, are attempting to revise key aspects of the international order and are acting in a manner that threatens our national security interests.

While Russia has contributed in select security areas, such as counternarcotics and counterterrorism, it also has repeatedly demonstrated that it does not respect the sovereignty of its neighbors and it is willing to use force to achieve its goals. Russia's military actions are undermining regional security directly and through proxy forces. These actions violate numerous agreements that Russia has signed in which it committed to act in accordance with international norms, including the UN Charter, Helsinki Accords, Russia-NATO Founding Act, Budapest Memorandum, and the Intermediate-Range Nuclear Forces Treaty.

Iran also poses strategic challenges to the international community. It is pursuing nuclear and missile delivery technologies despite repeated United Nations Security Council resolutions demanding that it cease such efforts. It is a state-sponsor of terrorism that has undermined stability in many nations, including Israel, Lebanon, Iraq, Syria, and Yemen. Iran's actions have destabilized the region and brought misery to countless people while denying the Iranian people the prospect of a prosperous future.

North Korea's pursuit of nuclear weapons and ballistic missile technologies also contradicts repeated demands by the international community to cease such efforts. These capabilities directly threaten its neighbors, especially the Republic of Korea and Japan. In time, they will threaten the U.S. homeland as well. North Korea also has conducted cyber attacks, including causing major damage to a U.S. corporation.

We support China's rise and encourage it to become a partner for greater international security. However, China's actions are adding tension to the Asia-Pacific region. For

⁸ Remarks by Secretary Carter on the Budget at the Economic Club of Washington, D.C., Secretary of Defense Ash Carter, February 2, 2016, accessed March 30, 2016, at <http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/648901/remarks-by-secretary-carter-on-the-budget-at-the-economic-club-of-washington-dc>. See also, for example, Megan Eckstein, "CNO: Navy Needs More Agile Procurement To Keep Pace With '4-Plus-1' Threat Set," *USNI News*, December 7, 2015. The "4+1" refers to four countries (Russia, China, North Korea, and Iran) plus transnational terrorism.

example, its claims to nearly the entire South China Sea are inconsistent with international law. The international community continues to call on China to settle such issues cooperatively and without coercion. China has responded with aggressive land reclamation efforts that will allow it to position military forces astride vital international sea lanes.

None of these nations are believed to be seeking direct military conflict with the United States or our allies. Nonetheless, they each pose serious security concerns which the international community is working to collectively address by way of common policies, shared messages, and coordinated action....

For the past decade, our military campaigns primarily have consisted of operations against violent extremist networks. But today, and into the foreseeable future, we must pay greater attention to challenges posed by state actors. They increasingly have the capability to contest regional freedom of movement and threaten our homeland. Of particular concern are the proliferation of ballistic missiles, precision strike technologies, unmanned systems, space and cyber capabilities, and weapons of mass destruction (WMD) – technologies designed to counter U.S. military advantages and curtail access to the global commons....

Today, the probability of U.S. involvement in interstate war with a major power is assessed to be low but growing. Should one occur, however, the consequences would be immense. VEOs [violent extremist organizations], in contrast, pose an immediate threat to transregional security by coupling readily available technologies with extremist ideologies. Overlapping state and non-state violence, there exists an area of conflict where actors blend techniques, capabilities, and resources to achieve their objectives. Such “hybrid” conflicts may consist of military forces assuming a non-state identity, as Russia did in the Crimea, or involve a VEO fielding rudimentary combined arms capabilities, as ISIL has demonstrated in Iraq and Syria. Hybrid conflicts also may be comprised of state and non-state actors working together toward shared objectives, employing a wide range of weapons such as we have witnessed in eastern Ukraine. Hybrid conflicts serve to increase ambiguity, complicate decision-making, and slow the coordination of effective responses. Due to these advantages to the aggressor, it is likely that this form of conflict will persist well into the future.⁹

Markers of the Shift to the New Environment

For observers who conclude that the international security environment has shifted to a new situation, the sharpest single marker of the shift arguably was Russia’s seizure and annexation of Crimea in March 2014, which represented the first forcible seizure and annexation of one country’s territory by another country in Europe since World War II. Other markers of the shift, such as Russia’s actions in eastern Ukraine and elsewhere in Eastern Europe since March 2014, China’s economic growth and military modernization over the last several years, and China’s actions in the East and South China Seas over the last several years, have been more gradual and cumulative.

Some observers trace the beginnings of the argued shift in the international security environment back to 2008. In that year, Russia invaded and occupied part of the former Soviet republic of Georgia without provoking a strong cost-imposing response from the United States and its allies. Also in that year, the financial crisis and resulting deep recessions in the United States and Europe, combined with China’s ability to weather that crisis and its successful staging of the 2008

⁹ Department of Defense, *The National Military Strategy of the United States of America 2015, The United States Military’s Contribution To National Security*, June 2015, pp. i, 1-4.

Summer Olympics, are seen by observers as having contributed to a perception in China of the United States as a declining power, and to a Chinese sense of self-confidence or triumphalism.¹⁰ China's assertive actions in the East and South China Seas can be viewed as having begun (or accelerated) soon thereafter. Other observers trace the roots of the end of the post-Cold War era further, to years prior to 2008.¹¹

Comparisons of the New Environment to Earlier Periods

Each international security environment features a unique combination of major actors, dimensions of competition and cooperation among those actors, and military and other technologies available to them. A new international security environment can have some similarities to previous ones, but it will also have differences, including, potentially, one or more features not present in any previous international security environment. In the early years of a new international security environment, some of its features may be unclear, in dispute, or not yet apparent. In attempting to understand a new international security environment, comparisons to earlier ones are potentially helpful in identifying avenues of investigation. If applied too rigidly, however, such comparisons can act as intellectual straightjackets, making it more difficult to achieve a full understanding of a new international security environment's characteristic features, particularly those that differentiate it from previous ones.

Some observers have stated that the world is entering a new Cold War (or Cold War II or 2.0). That term may have utility in referring specifically to U.S.-Russian relations, because the new international security environment that some observers have identified features competition and tension with Russia. Considered more broadly, however, the Cold War was a bipolar situation, while the new environment appears to be a situation that also includes China as a major competing power. The bipolarity of the Cold War, moreover, was reinforced by the opposing NATO and Warsaw Pact alliances, whereas in contrast, Russia today does not lead an equivalent of the Warsaw Pact. And while terrorists were a concern during the Cold War, the U.S. focus on countering transnational terrorist groups was not nearly as significant during the Cold War as it has been since 9/11.

Other observers, viewing the emerging situation, have drawn comparisons to the multipolar situation that existed in the 19th century and the years prior to World War I. Still others, observing the promotion in China and Russia of nationalistic historical narratives supporting revanchist or irredentist foreign policy aims, have drawn comparisons to the 1930s. Those two earlier situations, however, did not feature a strong focus on countering globally significant transnational terrorist groups, and the military and other technologies available then differ vastly from those available today. The new situation that some observers have identified may be similar in some respects to previous situations, but it also differs from previous situations in certain respects, and might be best understood by direct observation and identification of its key features.

Naming the New Environment

Observers who conclude that the international security environment has shifted to a new situation do not yet appear to have reached a consensus on what term to use to refer to the new situation. As noted above, some observers have used terms such as a new Cold War (or Cold War II or 2.0). Other observers have referred to the new situation as an era of renewed great power competition

¹⁰ See, for example, Howard W. French, "China's Dangerous Game," *The Atlantic*, October 13, 2014.

¹¹ See, for example, Walter Russell Mead, "Who's to Blame for a World in Flames?" *The American Interest*, October 6, 2014.

or a competitive world order. Other terms that some observers have used include multipolar era, the disorderly world (or era),¹² the “complexity crisis in U.S. strategy,”¹³ and the age of everything, meaning an age in which the United States will face multiple security challenges of various types.¹⁴

Congressional Participation in Reassessment of U.S. Defense During Previous Shift

A previous change in the international security environment—the shift in the late 1980s and early 1990s from the Cold War to the post-Cold War era—prompted a broad reassessment by the Department of Defense (DOD) and Congress of defense funding levels, strategy, and missions that led to numerous changes in DOD plans and programs. Many of these changes were articulated in the 1993 Bottom-Up Review (BUR),¹⁵ a reassessment of U.S. defense plans and programs whose very name conveyed the fundamental nature of the reexamination that had occurred.¹⁶ In general, the BUR reshaped the U.S. military into a force that was smaller than the Cold War U.S. military, and oriented toward a planning scenario being able to conduct two major regional contingencies (MRCs) rather than the Cold War planning scenario of a NATO-Warsaw Pact conflict.¹⁷

Through both committee activities and the efforts of individual Members, Congress played a significant role in the reassessment of defense funding levels, strategy, plans, and programs that was prompted by the end of the Cold War. In terms of committee activities, the question of how to change U.S. defense plans and programs in response to the end of the Cold War was, for example, a major focus for the House and Senate Armed Services Committees in holding hearings and marking up annual national defense authorization acts in the early 1990s.¹⁸

¹² See, for example, Richard N. Haass, “The Era of Disorder,” *Project Syndicate*, October 27, 2014; Rebecca K.C. Hersman, “Nuclear Deterrence in a Disordered World,” *Global Forecast 2016*, Center for Strategic and International Studies, 2015.

¹³ See Anthony H. Cordesman, “America’s Failed Approach to Chaos Theory,” Center for Strategic and International Studies, April 15, 2015.

¹⁴ See “Defense One Summit 2015—The Age of Everything,” *Defense One*, November 3, 2015; Ashton B. Carter, “Maintaining the Edge in the Age of Everything,” *Defense One*, November 2, 2015; Bradley Peniston, “Work: ‘The Age of Everything Is the Era of Grand Strategy,’” *Defense One*, November 2, 2015.

¹⁵ See Department of Defense, *Report on the Bottom-Up Review*, Les Aspin, Secretary of Defense, October 1993, 109 pp.

¹⁶ Secretary of Defense Les Aspin’s introduction to DOD’s report on the 1993 BUR states:

In March 1993, I initiated a comprehensive review of the nation’s defense strategy, force structure, modernization, infrastructure, and foundations. I felt that a department-wide review needed to be conducted “from the bottom up” because of the dramatic changes that have occurred in the world as a result of the end of the Cold War and the dissolution of the Soviet Union. These changes in the international security environment have fundamentally altered America’s security needs. Thus, the underlying premise of the Bottom-Up Review was that we needed to reassess all of our defense concepts, plans, and programs from the ground up.

(Department of Defense, *Report on the Bottom-Up Review*, Les Aspin, Secretary of Defense, October 1993, p. iii.)

¹⁷ For additional discussion of the results of the BUR, see CRS Report 93-839 F, *Defense Department Bottom-Up Review: Results and Issues*, October 6, 1993, 6 pp., by (name redacted), and CRS Report 93-627 F, *Defense Department Bottom-Up Review: The Process*, July 2, 1993, 9 pp., by Cedric W. Tarr, Jr. (both nondistributable and available from the author of this report).

¹⁸ See, for example:

(continued...)

In terms of efforts by individual Members, some Members put forth their own proposals for how much to reduce defense spending from the levels of the final years of the Cold War,¹⁹ while others put forth detailed proposals for future U.S. defense strategy, plans, programs, and spending. Senator John McCain, for example, issued a detailed, 32-page policy paper in November 1991 presenting his proposals for defense spending, missions, force structure, and weapon acquisition programs.²⁰

Perhaps the most extensive individual effort by a Member to participate in the reassessment of U.S. defense following the end of the Cold War was the one carried out by Representative Les Aspin, the chairman of the House Armed Services Committee. In early 1992, Aspin, supported by members of the committee's staff, devised a force-sizing construct and potential force levels and associated defense spending levels U.S. defense for the new post-Cold War era. A principal aim of Aspin's effort was to create an alternative to the "Base Force" plan for U.S. defense in the post-Cold War era that had been developed by the George H. W. Bush Administration.²¹ Aspin's effort included a series of policy papers in January and February 1992²² that were augmented by press

(...continued)

the House Armed Services Committee's report on the FY1991 National Defense Authorization Act (H.Rept. 101-665 of August 3, 1990, on H.R. 4739), pp. 7-14;

the Senate Armed Services Committee's report on the FY1991 National Defense Authorization Act (S.Rept. 101-384 of July 20 (legislative day, July 10), 1990, on S. 2884), pp. 8-36;

the House Armed Services Committee's report on the FY1992 and FY1993 National Defense Authorization Act (H.Rept. 102-60 of May 13, 1991, on H.R. 2100), pp. 8 and 13;

the Senate Armed Services Committee's report on the FY1992 and FY1993 National Defense Authorization Act (S.Rept. 102-113 of July 19 (legislative day, July 8), 1991, on S. 1507), pp. 8-9;

the House Armed Services Committee's report on the FY1993 National Defense Authorization Act (H.Rept. 102-527 of May 19, 1992, on H.R. 5006), pp. 8-10, 14-15, and 22;

the Senate Armed Services Committee's report on the FY1993 National Defense Authorization Act (S.Rept. 102-352 of July 31 (legislative day, July 23), 1992, on S. 3114), pp. 7-12;

the House Armed Services Committee's report on the FY1994 National Defense Authorization Act (H.Rept. 103-200 of July 30, 1993, on H.R. 2401), pp. 8-9 and 18-19;

the House Armed Services Committee's report on the FY1995 National Defense Authorization Act (H.Rept. 103-499 of May 10, 1994, on H.R. 4301), pp. 7 and 9;

the Senate Armed Services Committee's report on the FY1995 National Defense Authorization Act (S.Rept. 103-282 of June 14 (legislative day, June 7), 1994, on S. 2182), pp. 8-9; and

the House Armed Services Committee's report on the FY1996 National Defense Authorization Act (H.Rept. 104-131 of June 1, 1995, on H.R. 1530), pp. 6-7 and 11-12.

¹⁹ See, for example, Clifford Krauss, "New Proposal for Military Cut," *New York Times*, January 7, 1992: A11 [discussing a proposal by Senator Phil Gramm for reducing defense spending by a certain amount]; "Sen. Mitchell Proposes \$100 Billion Cut in Defense," *Aerospace Daily*, January 17, 1992: 87; John Lancaster, "Nunn Proposes 5-Year Defense Cut of \$85 Billion," *Washington Post*, March 25, 1992: A4.

²⁰ Senator John McCain, *Matching A Peace Dividend With National Security, A New Strategy For The 1990s*, November 1991, 32 pp.

²¹ See, for example, "Arms Panel Chief Challenges Ending Use of Threat Analysis," *Aviation Week & Space Technology*, January 13, 1992: 28; Patrick E. Tyler, "Top Congressman Seeks Deeper Cuts in Military Budget," *New York Times*, February 23, 1991: 1; Barton Gellman, "Debate on Military's Future Crystallizes Around 'Enemies List,'" *Washington Post*, February 26, 1992: A20; (name redacted), "Planning the Nation's Defense," February 29, 1992: 479. For more on the Base Force, see CRS Report 92-493 S, *National Military Strategy, The DoD Base Force, and U.S. Unified Command Plan*, June 11, 1992, 68 pp., by John M. Collins [nondistributable and available from the authors of this report].

²² These policy papers included the following:

- National Security in the 1990s: Defining a New Basis for U.S. Military Forces, Rep. Les Aspin, Chairman, House Armed Services Committee, Before the Atlantic Council of the United States, January 6, 1992, 23 pp.;

(continued...)

releases and speeches. Aspin's policy paper of February 25, 1992, served as the basis for his testimony that same day at a hearing on future defense spending before the House Budget Committee. Although DOD and some other observers (including some Members of Congress) criticized Aspin's analysis and proposals on various grounds,²³ the effort arguably proved consequential the following year, when Aspin became Secretary of Defense in the new Clinton Administration. Aspin's 1992 effort helped inform his participation in DOD's 1993 BUR. The 1993 BUR in turn created a precedent for the Quadrennial Defense Review (QDR) process that remains in place today.

Some Emerging Implications for Defense

Defense Funding Levels

The shift in the international security environment that some observers have identified—from the post-Cold War era to a new situation—has become a factor in the debate over the size of the U.S. defense budget in coming years, and over whether the Budget Control Act (BCA) of 2011 (S. 365/P.L. 112-25 of August 2, 2011) as amended should be further amended or repealed. The nature of the U.S. response to a shift in the international security environment could lead to defense spending levels that are higher than, lower than, or about the same as those in the BCA.

Renewed Emphasis on Grand Strategy and Geopolitics

Discussion of the shift in the international security environment that some observers have identified has led to a renewed emphasis on grand strategy and geopolitics as part of the context for discussing U.S. defense budgets, plans, and programs. A November 2, 2015, press report, for example, stated:

The resurgence of Russia and the continued rise of China have created a new period of great-power rivalry—and a corresponding need for a solid grand strategy, U.S. Deputy Defense Secretary Robert Work said Monday at the Defense One Summit in Washington, D.C.

“The era of everything is the era of grand strategy,” Work said, suggesting that the United States must carefully marshal and deploy its great yet limited resources.²⁴

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- An Approach to Sizing American Conventional Forces For the Post-Soviet Era, Rep. Les Aspin, Chairman, House Armed Services Committee, January 24, 1991, 20 pp.;
- Tomorrow's Defense From Today's Industrial Base: Finding the Right Resource Strategy For A New Era, by Rep. Les Aspin, Chairman, House Armed Services Committee, Before the American Defense Preparedness Association, February 12, 1992, 20 pp.; and
- An Approach to Sizing American Conventional Forces For the Post-Soviet Era, Four Illustrative Options, Rep. Les Aspin, Chairman, House Armed Services Committee, February 25, 1992, 27 pp.

²³ See, for example, “Aspin Defense Budget Plans Rebuffed By Committee,” *Defense Daily*, February 24, 1992: 289; “Pentagon Spurns Aspin's Budget Cuts as ‘Political,’” *Washington Post*, February 28, 1992: A14.

²⁴ Bradley Peniston, “Work: ‘The Age of Everything Is the Era of Grand Strategy,’” *Defense One*, November 2, 2015. See also, for example, William C. Martel, “Why America Needs a Grand Strategy,” *The Diplomat*, June 18, 2012; Aaron David Miller, “The Naiveté of Distance,” *Foreign Policy*, March 31, 2014; Robert Kaplan, “The Gift of American Power,” *Real Clear World*, May 15, 2014; William C. Martel, “America's Grand Strategy Disaster,” *The National Interest*, June 9, 2014; Adam Garfinkle, “The Silent Death of American Grand Strategy,” *American Review*, 2014; Christopher A. Ford, “Ending the Strategic Holiday: U.S. Grand Strategy and a ‘Rising’ China,” *Asia Policy*, Number 18 (July 2014): 181-189; William Ruger, “A Realist's Guide to Grand Strategy,” *The American Conservative*, (continued...)

From a U.S. perspective, grand strategy can be understood as strategy considered at a global or interregional level, as opposed to strategies for specific countries, regions, or issues. Geopolitics refers to the influence on international relations and strategy of basic world geographic features such as the size and location of continents, oceans, and individual countries.

From a U.S. perspective on grand strategy and geopolitics, it can be noted that most of the world's people, resources, and economic activity are located not in the Western Hemisphere, but in the other hemisphere, particularly Eurasia. In response to this basic feature of world geography, U.S. policymakers for the last several decades have chosen to pursue, as a key element of U.S. national strategy, a goal of preventing the emergence of a regional hegemon in one part of Eurasia or another, on the grounds that such a hegemon could represent a concentration of power strong enough to threaten core U.S. interests by, for example, denying the United States access to some of the other hemisphere's resources and economic activity. Although U.S. policymakers have not often stated this key national strategic goal explicitly in public, U.S. military (and diplomatic) operations in recent decades—both wartime operations and day-to-day operations—can be viewed as having been carried out in no small part in support of this key goal.

The U.S. goal of preventing the emergence of a regional hegemon in one part of Eurasia or another is a major reason why the U.S. military is structured with force elements that enable it to cross broad expanses of ocean and air space and then conduct sustained, large-scale military operations upon arrival. Force elements associated with this goal include, among other things, an Air Force with significant numbers of long-range bombers, long-range surveillance aircraft, long-range airlift aircraft, and aerial refueling tankers, and a Navy with significant numbers of aircraft carriers, nuclear-powered attack submarines, large surface combatants, large amphibious ships, and underway replenishment ships.

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August 26, 2014; Barry R. Posen, *Restraint: A New Foundation for U.S. Grand Strategy*, Cornell University Press, 2014, 256 pp. (Cornell Studies in Security Affairs); R. D. Hooker, *The Grand Strategy of the United States*, Washington, National Defense University Press, October 2014, 35 pp. (INSS Strategic Monograph, Institute for National Strategic Studies); F.G. Hoffman, "Grand Strategy: The Fundamental Considerations," *Orbis*, Volume 58, Issue 4 (Fall 2014), 2014: 472–485; Michael Page, "Is 'Restraint' a Realistic Grand Strategy?" *Cicero Magazine*, October 21, 2014; Bryan McGrath, "Unconstrained Grand Strategy," *War on the Rocks* October 28, 2014; Joseph Sarkisian, "American Grand Strategy or Grand Illusion?" *Cicero*, December 1, 2014; Chris Miller, "State of Disunion: America's Lack of Strategy is its Own Greatest Threat," *Cicero*, January 27, 2015; Jerry Hendrix, *Avoiding Trivia: A Strategy for Sustainment and Fiscal Responsibility*, Center for a New American Security, February 2015, 36 pp.; Jim Mattis, "A New American Grand Strategy," Hoover Institution, February 26, 2015; Stewart Patrick and Isabella Bennett, "Geopolitics Is Back—and Global Governance Is Out," *The National Interest*, May 12, 2015; Alfred McCoy, "The Geopolitics of American Global Decline," *Real Clear World*, June 8, 2015; Steve LeVine, "How China Is Building the Biggest Commercial-Military Empire in History," *Defense One*, June 9, 2015; Thomas Vien, "The Grand Design of China's New Trade Routes," *Stratfor*, June 24, 2015; John R. Deni, "General Dunford Is Right About Russia, But Not Because of Their Nukes," *War on the Rocks*, July 13, 2015; Frederick W. Kagan and Kimberly Kagan, "Putin Ushers in a New Era of Global Geopolitics," *AEI Warning Intelligence Update*, September 27, 2015; Gideon Rachman, "A Global Test of American Power," *Financial Times*, October 12, 2015; Joschka Fischer, "The Return of Geopolitics to Europe," *Project Syndicate*, November 2, 2015; Marian Leighton, "Go South, Young Russian," *Weekly Standard*, December 28, 2015; John E. McLaughlin, "US Strategy and Strategic Culture from 2017," *Global Brief*, February 19, 2016; Michael Auslin, "Asia's Mediterranean: Strategy, Geopolitics, and Risk in the Seas of the Indo-Pacific," *War on the Rocks*, February 29, 2016; H.R. McMaster, "Probing for Weakness," *Wall Street Journal*, March 23, 2016; Parag Khanna, "The Brilliance of China's Grand Strategy: Don't 'Won' Land, Just 'Use' It," *The National Interest*, April 11, 2016; Seth Cropsey, "New American Grand Strategy," *Real Clear Defense*, April 13, 2016; Zbigniew Brzezinski, "Toward a Global Realignment," *The American Interest*, April 17, 2016; Michael Mandelbaum, "America in a New World," *The American Interest*, May 23, 2016; Robert D. Blackwell, "China's Strategy for Asia: Maximize Power, Replace America," *National Interest*, May 26, 2016.

U.S. and NATO Military Capabilities in Europe

Russia's seizure and annexation of Ukraine and Russia's subsequent actions in eastern Ukraine and elsewhere in Eastern Europe have led to a renewed focus among policymakers on the adequacy of U.S. and NATO military capabilities in Europe.²⁵ Some observers have expressed particular concern about the ability of the United States and its NATO allies to defend the Baltic members of NATO in the event of a fast-paced Russian military move into those countries.²⁶

Administration officials have announced a series of specific actions to bolster military deterrence in Europe.²⁷ In July 2014, the Administration, as part of its FY2015 funding request for the Overseas Contingency Operations (OCO) part of DOD's budget, requested \$1 billion for a European Reassurance Initiative (ERI), of which \$925 million would be for DOD to carry out several force deployments and operations in Europe.²⁸ As part of its proposed FY2017 defense budget, the Administration is requesting \$3.4 billion for ERI for FY2017.

At the September 4-5, 2014, NATO summit in Wales, NATO leaders announced a series of initiatives for refocusing NATO away from "out of area" (i.e., beyond-Europe) operations, and

²⁵ See, for example, Andrew Tilghman, "EUCOM Commander: US May Need To 'Puncture' Russian Defenses," *Defense News*, March 1, 2016; Andrew Tilghman, "The Pentagon Starts Planning to Base More Troops in Europe," *Army Times*, March 6, 2016; Andrius Sytas, "NATO Needs to Beef Up Defense of Baltic Airspace: Top Commander," *Reuters*, March 29, 2016; Lolita C. Baldor, "US to Beef Up Military Presence in Eastern Europe," *Associated Press*, March 30, 2016; Gordon Lubold and Julian E. Barnes, "Pentagon Readies More Robust U.S. Military Presence in Eastern Europe," *Wall Street Journal*, March 30, 2016; Andrew Tilghman, "Army Plans 9-Month Deployments for Armored Brigades in Europe," *Defense News*, March 30, 2016; Sydney J. Freedberg Jr., "Wargame Warns NATO Unready For Baltic Crisis," *Breaking Defense*, April 12, 2016; Neil MacFarquhar, "Russian Enclave Seen as a Fault Line of East-West Tensions," *New York Times*, April 16, 2016; Elbridge Colby and Jonathan Solomon, "For Peace with Russia, Prepare for War in Europe: NATO and Conventional Deterrence," *War on the Rocks*, April 20, 2016; Julian E. Barnes, "U.S. Seeks Better Deterrence in Europe Against Russian Aircraft," *Wall Street Journal*, April 21, 2016; Andrew Tilghman, "Top General Wants More Soldiers In Europe," *Military Times*, April 21, 2016; Austin Wright, "Gen. Scaparrotti: We Should Tell Russia We're Prepared to Take Action," *Politico*, April 21, 2016; David A. Shlapak and Michael W. Johnson, "Outnumbered, Outraged, and Outgunned: How Russia Defeats NATO," *War on the Rocks*, April 21, 2016; John Vandiver, "Breedlove: EUCOM Must Get Back to War Planning," *Stars and Stripes*, April 28, 2016; Julian E. Barnes and Anton Troianovski, "NATO Allies Preparing to Put Four Battalions at Eastern Border With Russia," *Wall Street Journal*, April 29, 2016; Julian E. Barnes, "NATO's Breedlove Calls for Shaper Focus on Russia Ahead of Departure," *Wall Street Journal*, May 1, 2016; Thomas Gibbons-Neff, "NATO Considering Thousands of Troops Near Russia's Border," *Washington Post*, May 2, 2016; Esteban Villarejo, "NATO Urged to Have Military Presence on Eastern Flank," *Defense News*, May 17, 2016.

²⁶ See, for example, David A. Shlapak and Michael W. Johnson, Reinforcing Deterrence on NATO's Eastern Flank, RAND report RR 1253-A, 2016, 15 pp.; John Grady, "Expert on NATO Calls for Permanent Alliance Military Presence in Baltics As Hedge Against Russia Military Action," *USNI News*, February 16, 2016; Kris Osborn, "Russia Could Quickly Overrun Baltic States, Study Concludes," *DOD Buzz*, February 26, 2016; Karen DeYoung, "Baltic Countries Want a Longer NATO Commitment to Counter Russia," *Washington Post*, February 26, 2016; Daniel Katz, "Keeping Europe Safe From Putin," *Wall Street Journal*, March 23, 2016; Andrius Sytas, "NATO Needs To Beef Up Defense of Baltic Airspace: Top Commander," *Reuters*, March 29, 2016. See also Andrew Tilghman, "EUCOM Commander: US May Need To 'Puncture' Russian Defenses," *Defense News*, March 1, 2016.

²⁷ See for example, Mark Landler and Helene Cooper, "U.S. Fortifying Europe's East to Deter Putin," *New York Times*, February 1, 2016; Jen Judson and Aaron Mehta, "US Army Pivots to Europe," *Defense News*, February 14, 2016; Andrew Tilghman, "The Pentagon Starts Planning to Base More Troops in Europe," *Army Times*, March 6, 2016; Gordon Lubold and Julian E. Barnes, "Pentagon readies More Robust U.S. Military Presence in Eastern Europe," *Wall Street Journal*, March 30, 2016; Lolita C. Baldor, "US To Beef Up Military Presence in Eastern Europe," *Associated Press*, March 30, 2016.

²⁸ Prepared Statement of the Honorable Robert O. Work, Deputy Secretary of Defense, and Admiral James A. Winnefeld, Jr., USN, Vice Chairman of the Joint Chiefs of Staff, Before the House Armed Services Committee on the FY2015 Overseas Contingency Operations Budget Request for the Department of Defense, Wednesday, July 16, 2014, pp. 2, 4-5.

back toward a focus on territorial defense and deterrence in Europe itself.²⁹ In December 2014, Russia issued a new military doctrine that, among other things, calls for a more assertive approach toward NATO.³⁰ Russian officials have stated that Russia would respond to the placement of additional U.S. military forces or equipment in Eastern Europe by deploying additional forces along its own western border.³¹

The increased attention that U.S. policymakers are paying to the security situation in Europe, combined with U.S. military operations in the Middle East against the Islamic State organization and similar groups, has intensified questions among some observers about whether the United States will be able to fully implement the military component of the U.S. strategic rebalancing to the Asia-Pacific region that was formally announced in the January 2012 defense strategic guidance document.

Countering Hybrid Warfare and Gray-Zone Tactics

Russia's seizure and annexation of Crimea, as well as subsequent Russian actions in eastern Ukraine and elsewhere in Eastern Europe, have led to a focus among policymakers on how to counter Russia's so-called hybrid warfare or ambiguous warfare tactics.³² China's actions in the

²⁹ For additional discussion, see CRS Report R43698, *NATO's Wales Summit: Outcomes and Key Challenges*, by (name redacted). See also CRS Report R43478, *NATO: Response to the Crisis in Ukraine and Security Concerns in Central and Eastern Europe*, coordinated by (name redacted).

³⁰ See, for example, Jaroslaw Adamowski, "Russia Overhauls Military Doctrine," *Defense News*, January 10, 2015.

³¹ See, for example, Karoun Demirjian, "Russia Says It Would Match Any U.S. Military Buildup in Eastern Europe," *Washington Post*, June 15, 2015; "Russia Promises 'Asymmetric' Response To NATO Buildup In East," *Radio Free Europe/Radio Liberty*, April 1, 2016; Steven Pifer, "Russian 'Countermeasures' to NATO Are Coming," Brookings Institution, May 10, 2016.

³² See, for example, Thomas Gibbons-Neff, "The 'New' Type of War That Finally Has The Pentagon's Attention," *Washington Post*, July 3, 2015; Mark Galeotti, "Time to Think About 'Hybrid Defense,'" *War on the Rocks*, July 30, 2015; A. Wess Mitchell, "The Case for Deterrence by Denial," *American Interest*, August 12, 2015; (name redacted), "The Changing Face of War In The 21st Century," *Real Clear Defense*, August 18, 2015; Aapo Cederberg and Pasi Eronen, "Wake Up, West! The Era of Hybrid Warfare Is Upon Us," *Overt Action*, August 25, 2015; Marcus Weisgerber, "Now NATO's Prepping for Hybrid War," *Defense One*, August 27, 2015; Maria Snegovaya, *Putin's Information Warfare in Ukraine*, Washington, Institute for the Study of War, September 2015, 26 pp.; Jan Joel Andersson and Thierry Tardy, "Hybrid: What's In a Name?" European Union Institute for Security Studies, October 2015, 4 pp.; Megan Eckstein, "U.S. Naval Commander in Europe: NATO Needs to Adapt to Russia's New Way of Hybrid Warfare," *USNI News*, October 6, 2015; Tony Wesolowsky and Mark Krutov, "Activist Says Russia Using 'Hybrid Warfare' in Syria," *Radio Free Europe/Radio Liberty*, November 11, 2015; Howard Altman, "'Gray Zone Conflicts Far More Complex to Combat, Says Socom Chief Votel,'" *Tampa Tribune*, November 28, 2015 (dated November 29, 2015); Jordan Chandler Hirsch and Peter Feaver, "Obama's Thin Gray Line," *Foreign Policy*, December 2, 2015; Eric Olsen, "America's Not Ready for Today's Gray Wars," *Defense One*, December 10, 2015; Adam Elkus, "50 Shades of Gray: Why Gray Wars Concept Lacks Strategic Sense," *War on the Rocks*, December 15, 2015; Peter Pomerantsev, "Fighting While Friending: The Grey War Advantage of ISIS, Russia, and China," *Defense One*, December 29, 2015; David S. Maxwell, "Congress Has Embraced Unconventional Warfare: Will the US Military and The Rest of the US Government?" *Small Wars Journal*, December 29, 2016; Joseph L. Votel, et al, "Unconventional Warfare in the Gray Zone," *Joint Force Quarterly*, 1st Quarter 2016: 101-109; Julian E. Barnes, "NATO Works to Adapt to More Ambiguous Warfare Techniques," *Wall Street Journal*, February 8, 2016; Andreas Umland, "Russia's Pernicious Hybrid War Against Ukraine," Atlantic Council, February 22, 2016; Maxim Trudolyubov, "Russia's Hybrid War," *New York Times*, February 24, 2016; Bret Perry, "How NATO Can Disrupt Russia's New Way of War," *Defense One*, March 3, 2016; Michael Kofman, "Russian Hybrid Warfare and Other Dark Arts," *War on the Rocks*, March 11, 2016; Eerik-Niiles Kross, "Putin's War of Smoke and Mirrors," *Politico*, April 9, 2016; Molly McKew, "Estonian Report Details Russia's 'Hybrid Threat' to Europe," *Washington Free Beacon*, April 18, 2016; David Barno and Nora Bensahel, "A New Generation of Unrestricted Warfare," *War on the Rocks*, April 19, 2016.

East and South China Seas have similarly prompted a focus among policymakers on how to counter China's so-called salami-slicing or gray-zone tactics in those areas.³³

Capabilities for High-End Warfare

China's continuing military modernization effort³⁴ and Russian actions to modernize its military have led to a renewed emphasis in U.S. defense plans and programs on capabilities for conducting so-called high-end warfare, meaning large-scale, high-intensity, technologically sophisticated warfare.³⁵ Included in this emphasis are (to mention only a few examples) programs for procuring advanced aircraft such as the F-35 Joint Strike Fighter (JSF)³⁶ and the next-generation long-range bomber,³⁷ highly capable warships such as the Virginia-class attack submarine³⁸ and DDG-51 class Aegis destroyer,³⁹ ballistic missile defense (BMD) capabilities,⁴⁰ longer-ranged land-attack and anti-ship weapons, new types of weapons such as lasers, railguns, and hypervelocity projectiles,⁴¹ new ISR (intelligence, surveillance, and reconnaissance) capabilities, military space capabilities,⁴² electronic warfare capabilities, and military cyber capabilities.⁴³ In his February 2, 2016, remarks previewing DOD's proposed FY2017 budget, Secretary Carter stated:

We will be prepared for a high-end enemy. That's what we call full spectrum. In our budget, our plans, our capabilities and our actions, we must demonstrate to potential foes, that if they start a war, we have the capability to win. Because the force that can deter conflict, must show that it can dominate a conflict.

³³ See CRS Report R42784, *Maritime Territorial and Exclusive Economic Zone (EEZ) Disputes Involving China: Issues for Congress*, by (name redacted) . See also Benjamin David Baker, "Hybrid Warfare With Chinese Characteristics," *The Diplomat*, September 23, 2015; Michael Raska, "China and the 'Three Warfares,'" *The Diplomat*, December 18, 2015.

³⁴ For more on China's military modernization effort, see CRS Report R44196, *The Chinese Military: Overview and Issues for Congress*, by (name redacted)

³⁵ See, for example, Missy Ryan, "Pentagon Unveils Budget Priority for Next Year: Countering Russia and China," *Washington Post*, February 1, 2016; Sydney J. Freedberg Jr., and Colin Clark, "Threats From Russia, China Drive 2017 DoD Budget," *Breaking Defense*, February 2, 2016; Dave Majumdar, "Great Power Pivot: U.S. Shifts Focus to War With China and Russia," *National Interest*, February 10, 2016.

³⁶ For more on the F-25 program, see CRS Report RL30563, *F-35 Joint Strike Fighter (JSF) Program*, by (name redacted) .

³⁷ CRS Report RL34406, *Air Force Next-Generation Bomber: Background and Issues for Congress*, by (name redacted)

³⁸ For more on the Virginia-class program, see CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*, by (name redacted)

³⁹ For more on the DDG-51 program, see CRS Report RL32109, *Navy DDG-51 and DDG-1000 Destroyer Programs: Background and Issues for Congress*, by (name redacted) .

⁴⁰ See, for example, CRS Report R43116, *Ballistic Missile Defense in the Asia-Pacific Region: Cooperation and Opposition*, by (name redacted), (name redacted), and (name redacted) , and CRS Report RL33745, *Navy Aegis Ballistic Missile Defense (BMD) Program: Background and Issues for Congress*, by (name redacted) .

⁴¹ See, for example, CRS Report R44175, *Navy Lasers, Railgun, and Hypervelocity Projectile: Background and Issues for Congress*, by (name redacted) .

⁴² See, for example, CRS In Focus IF10337, *Challenges to the United States in Space*, by (name redacted) and Clark Groves.

⁴³ See, for example, CRS Report R43848, *Cyber Operations in DOD Policy and Plans: Issues for Congress*, by (name redacted) .

In this context, Russia and China are our most stressing competitors. They have developed and are continuing to advance military system that seek to threaten our advantages in specific areas. And in some case, they are developing weapons and ways of wars that seek to achieve their objectives rapidly, before they hope, we can respond.⁴⁴

Maintaining Technological Superiority in Conventional Weapons

DOD officials have expressed concern that the technological and qualitative edge that U.S. military forces have had relative to the military forces of other countries is being narrowed by improving military capabilities in other countries, particularly China and (in some respects) Russia. To arrest and reverse the decline in the U.S. technological and qualitative edge, DOD in November 2014 announced a new **Defense Innovation Initiative**.⁴⁵ In related efforts, DOD has also announced that it is implementing a **Long-Range Research and Development Plan (LRRDP)**,⁴⁶ and that it is seeking a new general U.S. approach—a so-called “**third offset strategy**”—for maintaining U.S. superiority over opposing military forces that are both numerically large and armed with precision-guided weapons.⁴⁷ A November 24, 2014, press report stated:

After spending 13 years fighting non-state actors in Iraq, Afghanistan and Syria, the US Defense Department is shifting its institutional weight toward developing a new acquisition and technology development strategy that focuses more on major state competitors, the Pentagon’s No. 2 told Defense News on Nov. 21[, 2014].

Deputy Defense Secretary Bob Work said that at the top of the agenda are powers like China and Russia, both of whom have “regional and global aspirations, so that’s going to increasingly take a lot of our attention.”

⁴⁴ Remarks by Secretary Carter on the Budget at the Economic Club of Washington, D.C., Secretary of Defense Ash Carter, February 2, 2016, accessed March 30, 2016, at <http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/648901/remarks-by-secretary-carter-on-the-budget-at-the-economic-club-of-washington-dc>.

⁴⁵ See, for example, Cheryl Pellerin, “Hagel Announces New Defense Innovation, Reform Efforts,” *DOD News*, November 15, 2014; Jake Richmond, “Work Explains Strategy Behind Innovation Initiative,” *DOD News*, November 24, 2014; and memorandum dated November 15, 2015, from Secretary of Defense Chuck Hagel to the Deputy Secretary of Defense and other DOD recipients on The Defense Innovation Initiative, accessed online on July 21, 2015, at <http://www.defense.gov/pubs/OSD013411-14.pdf>.

⁴⁶ See, for example, Cheryl Pellerin, “DoD Seeks Novel Ideas to Shape Its Technological Future,” *DoD News*, February 24, 2015.

⁴⁷ See Deputy Secretary of Defense Speech, Reagan Defense Forum: The Third Offset Strategy, As Delivered by Deputy Secretary of Defense Bob Work, Reagan Presidential Library, Simi Valley, CA, November 7, 2015, accessed December 21, 2015, at <http://www.defense.gov/News/Speeches/Speech-View/Article/628246/reagan-defense-forum-the-third-offset-strategy>, and Deputy Secretary of Defense Speech, CNAS Defense Forum, As Delivered by Deputy Secretary of Defense Bob Work, JW Marriott, Washington, DC, December 14, 2015, accessed December 21, 2015, at <http://www.defense.gov/News/Speeches/Speech-View/Article/634214/cnas-defense-forum>. See also Jason Sherman, “DOD Unveils Technology Areas That Will Drive ‘Third Offset’ Investments, Experimentation,” *InsideDefense.com Daily News*, December 9, 2014; Aaron Mehta, “Work Outlines Key Steps in Third Offset Tech Development,” *Defense News*, December 14, 2015; Jon Harper, “2017 Budget Proposal to Include Billions for Next-Generation Weapons Research,” *National Defense*, December 14, 2015; Tony Bertuca, “Work Pegs FY-17 ‘Third Offset’ Investment at \$12B-\$15B,” *InsideDefense.com Daily News*, December 14, 2015; Jason Sherman, “DOD ‘Red Teams’ Aim to Anticipate Russia, Chinese Reaction to ‘Third Offset Strategy,’” *Inside the Pentagon*, December 22, 2016; Kyle Mizokami, “America’s Military is Getting Deadly Serious About China, Russia, and North Korea,” *The Week*, February 10, 2016; Mackenzie Eaglen, “What is the Third Offset Strategy?” *Real Clear Defense*, February 16, 2016; Tony Bertuca, “DOD Breaks Down ‘Third Offset’ FYDP Investments,” *Inside the Pentagon*, February 17, 2016; David Ignatius, “The Exotic New Weapons the Pentagon Wants to Deter Russia and China,” *Washington Post*, February 23, 2016; Amaani Lyle, “Pentagon: New Technology Deters Russia, China,” *Scout*, March 13, 2016; Shawn Brimley and Loren DeJonge Schulman, “Sustaining the Third Offset Strategy in the Next Administration,” *War on the Rocks*, March 15, 2016.

Next come regional states that want to become nuclear powers, such as Iran and North Korea, and finally are transnational terrorist groups and their myriad offshoots.

“Layered on top of all three are technological advancements that are happening at a very rapid pace,” Work said, which has given rise to a global competition for the latest in stealth, precision strike, communications and surveillance capabilities over which the United States no longer holds a monopoly.

The new Defense Innovation Initiative that Defense Secretary Chuck Hagel recently announced is “really focused on state actors,” Work said, “and looking at the capabilities that could potentially hurt our nation the most and how [the Pentagon can] prepare to address those capabilities and deter their use.”

A major part of this push is the new “offset” strategy, which is looking to identify new technologies that the United States can use in order to deter or defeat those threats.⁴⁸

Another related aspect of DOD’s efforts to maintain superiority in conventional weapons is the **Strategic Capabilities Office (SCO)**, which DOD created in 2012. In his February 2, 2016, remarks previewing DOD’s proposed FY2017 budget, Secretary Carter stated:

And as you can imagine, the budget also makes important investments in new technologies. We have to do this to stay ahead of future threats in a changing world. As other nations try to catch on the advantages that we have enjoyed for decades, in areas like precision-guided munitions, stealth, cyber and space.

Some of these investments are long-term, and I will get to them in a moment. But to help maintain our advantages now, DOD has an office that we don't often talk about, but I want to highlight today. It's called the Strategic Capabilities Office, or SCO for short.

I created the SCO in 2012 when I was deputy secretary of defense to help us to re-imagine existing DOD and intelligence community and commercial systems by giving them new roles and game-changing capabilities to confound potential enemies—the emphasis here was on rapidity of fielding, not 10 and 15-year programs. Getting stuff in the field quickly.

We need to make long-term investments as well. I will get to them in a moment. But the focus here was to keep up with the pace of the world....

SCO is incredibly innovative, but it also has the rare virtue of rapid development, and a rarer virtue of keeping current capabilities viable for as long as possible—in other words, it tries to build on what we have.⁴⁹

On April 12, 2016, the Senate Armed Services Committee held a hearing on the third offset strategy that also included testimony on the LRRDP and the SCO.

⁴⁸ Paul McLeary, “DoD Shifts Acquisition, Tech Efforts Toward Major Powers,” *Defense News*, November 14, 2014.

⁴⁹ Remarks by Secretary Carter on the Budget at the Economic Club of Washington, D.C., Secretary of Defense Ash Carter, February 2, 2016, accessed March 30, 2016, at <http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/648901/remarks-by-secretary-carter-on-the-budget-at-the-economic-club-of-washington-dc>. See also Sam LaGrone, “Little Known Pentagon Office Key to U.S. Military Competition with China, Russia,” *USNI News*, February 2, 2016; Jason Sherman, “Carter Lifts the Veil on Classified Work of Secretive Strategic Capabilities Office,” *Inside the Pentagon*, February 4, 2016; Colin Clark and Sydney J. Freedberg Jr., “Robot Boats, Smart Guns & Super B-52s: Carter’s Strategic Capabilities Office,” *Breaking Defense*, February 5, 2016; Dan Lamothe, “Veil of Secrecy Lifted on Pentagon Office Planning ‘Avatar’ Fighters and Drone Swarms,” *Washington Post*, March 8, 2016; Anthony Capaccio, “Once-Secret Pentagon Agency Asks Industry to Help Find New Ideas,” *Bloomberg*, March 29, 2016; Reuters, “New ‘Take Risk’ Office Rebuilds Navy’s Arsenal,” *Maritime Executive*, March 29, 2016; Sydney J. Freedberg Jr., “Countin On Chaos In The Offset Strategy: SCO,” *Breaking Defense*, April 12, 2016.

Nuclear Weapons and Nuclear Deterrence

Russia's reassertion of its status as a major world power has included, among other things, references by Russian officials to nuclear weapons and Russia's status as a major nuclear weapon power.⁵⁰ This has led to an increased emphasis in discussions of U.S. defense and security on nuclear weapons and nuclear deterrence⁵¹—a development that comes at a time when DOD is in the early stages of a multi-year plan to spend scores of billions of dollars to modernize U.S. strategic nuclear deterrent forces.⁵² DOD, for example, currently has plans to acquire a new class of ballistic missile submarines⁵³ and a next-generation long-range bomber.⁵⁴

⁵⁰ See, for example, Jeffrey Taylor, "Putin's Nuclear Option," *Foreign Policy*, September 4, 2014; Alexei Anishchuk, "Putin Warns U.S. Spay Over Ukraine Threatens Global Stability," Reuters, October 15, 2014; Adrian Croft, "UK Concerned Over 'Threatening' Russian Nuclear Strategy," *Reuters*, February 6, 2015; Paul Sonne, "As Tensions With West Rise, Russia Increasingly Rattles Nuclear Saber," *Wall Street Journal*, April 5, 2015; Zachary Keck, "Russia Threatens to Build More Nuclear Weapons," *The National Interest*, May 18, 2015; Zachary Keck, "Russia Threatens to Deploy Nuclear Weapons in Crimea," *The National Interest*, June 1, 2015; Keith B. Payne, "Putin Wields the Nuclear Threat—And Plays with Fire," *National Review*, June 30, 2015; "Russia Pledges Measures If U.S. Upgrades Nukes in Germany," *Radio Free Europe/Radio Liberty*, September 23, 2015; Harrison Menke, "Russia's Dangerous Strategy of Nuclear Coercion," *Real Clear Defense*, October 19, 2015; "Putin: Russia Will Keep Developing Nuclear Weapons," CBS News, December 20, 2015.

⁵¹ See, for example, Destiny Albritton, "Report: U.S. Must Modernize, Update Nuclear Strategy for New Century," *Washington Free Beacon*, June 23, 2015; Naftali Bendavid, "NATO to Weigh Nuclear Threats From Russia," *Wall Street Journal*, June 23, 2015; Steven Pifer, "Russia's Rising Military: Should the U.S. Send More Nuclear Weapons to Europe?" *The National Interest*, July 21, 2015; Michaela Dodge, *Russian Intermediate-Range Nuclear Forces: What They Mean for the United States*, Heritage Foundation, Backgrounder #3028, July 30, 2015; Kingston Reif, "A New Missile Gap?" *Real Clear Defense*, August 12, 2015; Kristina Wong, "Pentagon Chief: Russia Is A 'Very Significant Threat,'" *The Hill*, August 20, 2015; Matthew R. Costlow, "Number One Priority: Nuclear Deterrence," *Real Clear Defense*, August 25, 2015; Michael Auslin, "Reviving America's Nuclear Culture," *City Journal*, September 3, 2015; John Grady, "Panel: Moves from Putin Administration Ending 'Strategic Holiday' for U.S. NATO," *USNI News*, September 8, 2015; Bill Gertz, "U.S. Nuclear Missile Submarine Surfaces in Scotland," *Washington Free Beacon*, September 17, 2015; Mike Eckel, "Impasse Over U.S.-Russia Nuclear Treaty Hardens As Washington Threatens 'Countermeasures,'" *Radio Free Europe/Radio Liberty*, September 27, 2015; Michael Auslin, "American's Russian Nuke Obsession," *Real Clear Defense*, October 14, 2015; Dov S. Zakheim, "Meeting Russia's New Nuclear Challenge," *Washington Times*, October 29, 2015; Rebecca K.C. Hersman, "Nuclear Deterrence in a Disordered World," *Global Forecast 2016*, Center for Strategic and International Studies, 2015; Aaron Mehta, "Formber SecDef Perry: US on 'Brink' of New Nuclear Arms Race," *Defense News*, December 3, 2015; David J. Trachtenberg, "Commentary: Align US Strategic Forces to New Russian Realities," *Defense News*, December 7, 2015; John Grady, "Panel: Russian Nuclear Saber Rattling Prompting NATO to Rethink Its Role," *USNI News*, January 28, 2016; Ashish Kumar Sen, "Nuclear Component Must Be Part of NATO's Deterrence Policy in Europe's East, Says Latvia's Foreign Minister," *Atlantic Council*, February 26, 2016; Julian E. Barnes, "Does NATO Need to Rethink Its Nuclear Strategy," *Wall Street Journal (Real Time Brussels)*, March 1, 2016; Robert G. Joseph, "A Perspective on the Future of Nuclear Deterrence," *National Institute for Public Policy, Information Series, Issue No. 403*, March 1, 2016, 7 pp.; Karl-Heinz Kamp, "Commentary: NATO Must Reopen the Nuclear Dossier," *Defense News*, March 9, 2016; Franklin C. Miller, "Adjusting NATO's Nuclear Policies: A Five Step Program," *Atlantic Council*, March 23, 2016; Christine M. Leah, "There Are Going to Be More Cold Wars," *Real Clear Defense*, April 7, 2015; William J. Broad and David E. Sanger, "Race for Latest Class of Nuclear Arms Threatens to Revive Cold War," *New York Times*, April 16, 2016.

⁵² See, for example, William J. Broad and David E. Sanger, "U.S. Ramping Up Major Renewal in Nuclear Arms," *New York Times*, September 21, 2014; CRS Report RL33640, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, by (name redacted) and Congressional Budget Office, *Projected Costs of U.S. Nuclear Forces, 2015 to 2024* January 2015, 7 pp.

⁵³ CRS Report R41129, *Navy Ohio Replacement (SSBN(X)) Ballistic Missile Submarine Program: Background and Issues for Congress*, by (name redacted) .

⁵⁴ CRS Report RL34406, *Air Force Next-Generation Bomber: Background and Issues for Congress*, by (name redacted)

Speed of Weapon System Development and Deployment

DOD officials and other observers have argued that staying ahead of improving military capabilities in countries such as China in coming years will require adjusting U.S. defense acquisition policy to place a greater emphasis on speed of development and deployment as a measure of merit in defense acquisition policy (alongside other measures of merit, such as minimizing cost growth). As a consequence, they have stated, defense acquisition should feature more experimentation, risk-taking, and tolerance of failure during development. The previously mentioned Defense Innovation Initiative and Strategic Capabilities Office (SCO) (see “Maintaining Technological Superiority in Conventional Weapons” above) form two aspects of DOD’s efforts to move in this direction. Efforts within individual military services, such as the Navy’s new Maritime Accelerated Capabilities Office (MACO), form another.⁵⁵ DOD officials have also requested greater flexibility in how they are permitted to use funds for prototyping and experimentation.⁵⁶

In a December 22, 2014, opinion column, Frank Kendall, the Under Secretary of Defense for Acquisition, Technology and Logistics, stated:

For some time I have been trying to make the point that the United States’ military technological superiority is being challenged in ways we have not seen for decades. This is not a future problem, nor is it speculative. My concerns are based on the intelligence reports I have received on a daily basis for almost five years....

Some time ago, I asked the Defense Intelligence Agency to produce a poster size document showing the scope of China’s modernization programs in key war-fighting areas. The result is a dense compendium of dozens of programs. More recently, I asked my staff to prepare a similar depiction of the United States’ ongoing and projected modernization programs. The two documents are strikingly different.

The chart on China is dense with program descriptions and timelines. The chart on the US programs is characterized by a high amount of white space. China and Russia are fielding state-of-the-art weapons designed specifically to overmatch US capabilities....

In the face of increasing and sophisticated threats to our technological superiority, paying a reasonable price for the equipment we acquire and incentivizing industry to perform at its best is a means to an end, not the end itself. While we will continue those efforts, we have to turn our attention more toward meeting the very real challenges to our technological superiority.

[DOD’s] BBP [Better Buying Power] 3.0 [defense acquisition improvement initiative] will focus on the ways we pursue innovation and acquire technology. All of our investments in research and development will be reviewed with the goal of improving the output of those investments. We will look for ways to reduce cycle time for product development. We will examine the barriers to greater use of commercial and international sources of technology.

⁵⁵ See, for example, Jared Serbu, “Navy Building New Office to ‘Short-Circuit’ Traditional DoD Acquisition System,” *Federal News Radio*, January 8, 2016; Megan Eckstein, “New Navy Procurement Office, Marines to Push Rapid Innovation in 2016,” *USNI News*, March 1, 2016; Ellen Mitchell, “Navy Chief Advocates New Rapid Acquisition Office,” *Politico*, March 10, 2016; Valerie Insinna, “Navy Establishing Maritime Accelerated Capabilities Office as Acquisition Fast Track,” *Defense Daily*, March 11, 2016: 1-2.

⁵⁶ See, for example, John Grady, “Sean Stackley Asks Congress for More Department of Navy Flexibility in Acquisition,” *USNI News*, January 7, 2016; Valerie Insinna, “Acquisition Officials Call For Quicker Access to Funds For Prototyping, Experimentation,” *Defense Daily*, January 8, 2016: 1-3.

The emphasis on the professionalism of the acquisition workforce that I introduced in BBP 2.0 [in 2012] will continue, but the focus now will be on encouraging innovation and technical excellence; not just within the defense government enterprise but across industry as well. We will conduct a long-range research and development planning effort to ensure we are investing in the highest payoff technologies. We will seek resources to increase the use of prototyping and experimentation. Our ability to accept and manage risk, which is essential to technological superiority and inherent in cutting edge programs, will be re-examined....

As a nation we must overcome these threats, or we will wake up one day to the realization that the United States is no longer the most capable military power on the planet.⁵⁷

Minimizing Reliance on Components and Materials from Russia and China

Increased tensions with Russia have led to an interest in eliminating or at least minimizing instances of being dependent on Russian-made military systems and components for U.S. military systems. A current case in point concerns the Russian-made RD-180 rocket engine, which is incorporated into U.S. space launch rockets, including rockets used by DOD to put military payloads into orbit.⁵⁸

Concerns over Chinese cyber activities or potential Chinese actions to limit exports of certain materials (such as rare earth elements) have similarly led to concerns over the use of certain Chinese-made components (such as electronic components) or Chinese-origin materials (such as rare earth elements) for U.S. military systems.⁵⁹

Issues for Congress

Potential policy and oversight issues for Congress include the following:

- **Potential reassessment of U.S. defense analogous to 1993 Bottom-Up Review (BUR).** In response to changes in the international security environment, should there be a broad reassessment of U.S. defense funding levels, strategy, plans, and programs, analogous to the 1993 Bottom-Up Review (BUR)? If so, how should it be done, and what role should Congress play? Should Congress conduct the reassessment itself, through committee activities? Should Congress establish the terms of reference for a reassessment to be conducted by the executive branch or by an independent, third-party entity (such as a blue ribbon panel)? Should some combination of these approaches be employed?

⁵⁷ Frank Kendall, "Kendall: Why Better Buying Power 3.0?," *Defense News*, December 22, 2014. See also, for example, Aaron Mehta, "Pentagon Begins Better Buying Power 3.0," *Defense News*, April 9, 2015; Megan Eckstein, "CNO: Navy Needs More Agile Procurement To Keep Pace With '4-Plus-1' Threat Set," *USNI News*, December 7, 2015; Sydney J. Freedberg, Jr., "CNO Richardson Urges Fast-Track For Cyber, EW & Drones," *Breaking Defense*, December 7, 2015; Valerie Insinna, "CNO Pushes to Expedite Acquisition Process," *Defense Daily*, December 8, 2015; Anthony L. Velocci, Jr., "Opinion: Risk And Failure Drive Innovation," *Aviation Week & Space Technology*, December 18, 2015. See also Testimony of Vice Admiral (retired) Michael J. Connor before the United States House of Representatives Armed Services Committee Sea Power and Projection Forces Committee Hearing Game Changers – Undersea Warfare, October 27, 2015.

⁵⁸ See Austin Wright, "Air Force Offers Plan to Move Off Russian Rocket Engines," *Politico Pro*, September 14, 2015.

⁵⁹ For more on China and rare earth elements, see CRS Report R43864, *China's Mineral Industry and U.S. Access to Strategic and Critical Minerals: Issues for Congress*, by (name redacted) , and CRS Report R41744, *Rare Earth Elements in National Defense: Background, Oversight Issues, and Options for Congress*, by (name redacted) .

- **Defense funding levels.** In response to changes in the international security environment, should defense funding levels in coming years be increased, reduced, or maintained at about the current level? Should the Budget Control Act (BCA) of 2011, as amended, be further amended or repealed?
- **U.S. grand strategy.** Should the United States continue to include, as a key element of U.S. grand strategy, a goal of preventing the emergence of a regional hegemon in one part of Eurasia or another?⁶⁰ If not, what grand strategy should the United States pursue?
- **U.S. and NATO military capabilities in Europe.** Are the United States and its NATO allies taking appropriate and sufficient steps regarding U.S. and NATO military capabilities and operations in Europe? What potential impacts would a strengthened U.S. military presence in Europe have on total U.S. military force structure requirements? What impact would it have on DOD's ability to implement the military component of the U.S. strategic rebalancing toward the Asia-Pacific region?
- **Hybrid warfare and gray-zone tactics.** Do the United States and its allies and partners have adequate strategies for countering Russia's so-called hybrid warfare in eastern Ukraine and China's so-called salami-slicing tactics in the East and South China Seas?
- **Capabilities for high-end warfare.** Are DOD's plans for acquiring capabilities for high-end warfare appropriate and sufficient? In a situation of constraints on defense funding, how should tradeoffs be made in balancing capabilities for high-end warfare against other DOD priorities?
- **Maintaining technological superiority in conventional weapons.** Are DOD's steps for maintaining U.S. technological superiority in conventional weapons appropriate and sufficient?
- **Nuclear weapons and nuclear deterrence.** Are current DOD plans for modernizing U.S. strategic nuclear weapons, and for numbers and basing of non-strategic (i.e., theater-range) nuclear weapons, aligned with the needs of the new international security environment?
- **Speed in defense acquisition policy.** To what degree should defense acquisition policy be adjusted to place greater emphasis on speed of development and

⁶⁰ One observer states that this question was reviewed in 1992, at the beginning of the post-Cold War era:

As a Pentagon planner in 1992, my colleagues and I considered seriously the idea of conceding to great powers like Russia and China their own spheres of influence, which would potentially allow the United States to collect a bigger "peace dividend" and spend it on domestic priorities.

Ultimately, however, we concluded that the United States has a strong interest in precluding the emergence of another bipolar world—as in the Cold War—or a world of many great powers, as existed before the two world wars. Multipolarity led to two world wars and bipolarity resulted in a protracted worldwide struggle with the risk of nuclear annihilation. To avoid a return such circumstances, Secretary of Defense Dick Cheney ultimately agreed that our objective must be to prevent a hostile power to dominate a "critical region," which would give it the resources, industrial capabilities and population to pose a global challenge. This insight has guided U.S. defense policy throughout the post-Cold War era.

(Zalmay Khalilzad, "4 Lessons about America's Role in the World," *National Interest*, March 23, 2016.)

deployment, and on experimentation, risk taking, and greater tolerance of failure during development? Are DOD's steps for doing this appropriate?

- **Reliance on Russian and Chinese components and materials.** Aside from the Russian-made RD-180 rocket engine, what Russian or Chinese components or materials are incorporated into DOD equipment? What are DOD's plans regarding reliance on Russian- or Chinese-made components and materials for DOD equipment?

Legislative Activity for FY2017

FY2017 National Defense Authorization Act (H.R. 4909/S. 2943)

House

H.R. 4909 as reported by the House Armed Services Committee (H.Rept. 114-537 of May 4, 2016) includes multiple provisions that can be viewed as related to the various issues discussed in this CRS report. See, for example, Section 231 on trusted microelectronics, Section 806 on counterfeit electronic parts, Sections 1231-1238 on matters relating to Russia, Sections 1601 and 1602 on rocket engines, Section 1647 on Russian and Chinese leadership survivability, command and control, and continuity of government programs and activities, and Section 3115 on funds for the provision of certain assistance to Russia.

H.Rept. 114-537 states:

The security environment framing the committee's deliberations on H.R. 4909 is, as stated by the Director of the Defense Intelligence Agency, a world that "is far more complicated, it's far more destabilized, it's far more complex than at any time that I've seen it." The Islamic State of Iraq and the Levant (ISIL) has carried out terror attacks in Paris, Brussels, and Istanbul, while also continuing to expand throughout the Middle East, Africa, and Southeast Asia. Instability and the breakdown of nation-states across the Middle East and Africa continue to grow. The Russian Federation, the People's Republic of China, the Islamic Republic of Iran, and the Democratic People's Republic of Korea all continue to take actions that threaten their neighbors and, in some cases, directly threaten the United States. Additionally, with the continued diffusion of advanced technology, U.S. military technological superiority is no longer assumed and the dominance U.S. forces have long enjoyed across the land, air, sea, space, and cyberspace domains is no longer assured.

These security trends demand agility and strength from the Nation's Armed Forces to defend U.S. interests, deter would-be aggressors, and reassure allies and partners. They also require that the United States military be prepared for everything from nuclear conflict to hybrid warfare to terrorism. (Page 2)

H.Rept. 114-537 also states:

The committee recognizes that it must focus not only on addressing current threats, but also on preparing for emerging and evolving challenges in an increasingly uncertain global security environment, and it must ensure that defense resources are balanced between the two objectives. In particular, with the continued diffusion of advanced technology, U.S. military technological superiority is no longer assumed....

... the committee report reflects the committee's general support for the Department's Third Offset Strategy development effort. The committee believes that the Third Offset is a useful vehicle for focusing the Department on how to deter and counter the Russian

Federation and the People's Republic of China. The report notes that, while much of the focus is on technology, the committee also believes that further attention should be given to strategic thinking about deterrence, including the relationship between conventional and nuclear deterrence. Further, while greater innovation is a necessary element of such a strategy, the committee expects the Department to simultaneously address incentives and barriers to entry for private sector partnerships and impediments to transfer of innovative technologies to the military. (Pages 8-9)

H.Rept. 114-537 also states:

Strategic Capabilities Office

The budget request contained \$844.9 million in PE 64250D8Z for development activities of the Strategic Capabilities Office (SCO).

Created in 2012 by the Deputy Secretary of Defense, SCO has the mission to identify, analyze, demonstrate, and transition game-changing applications of existing and near-term technology to shape and counter emerging threats. SCO is comprised of a relatively small number of personnel and relies on other program office personnel and resources to execute its mission. The committee appreciates the nature of SCO's mission and sustained leanness of the organization; however, the committee notes the budget for SCO has grown exponentially each fiscal year. For example, the fiscal year 2017 budget request is nearly double the request for fiscal year 2016.

The committee is concerned that such rapid budget growth may bring with it some risks, including the demands on SCO's small staff, demands on other Department of Defense personnel, and impact of SCO decisions on existing programs. For example, the committee is aware of SCO's inclusion on the electromagnetic railgun development, and subsequent reprioritizing of its planned investment in that program for fiscal year 2017, resulting in a funding gap that could not be covered by the program office.

Additionally, the committee remains concerned that the transition of technologies from SCO has not been adequately captured and conveyed to the oversight committees. The report required by the committee report (H. Rept. 114-102) accompanying the National Defense Authorization Act for Fiscal Year 2016 has not been delivered and is now almost 6 months late. In order to support prudent use of taxpayer resources, and to ensure proper oversight of these activities, the committee believes this report should be provided and concerns addressed before supporting full funding of planned activities.

Therefore, the committee recommends \$804.9 million, a decrease of \$40.0 million, in PE 64250D8Z for development activities of the Strategic Capabilities Office. (Page 92)

H.Rept. 114-537 also states:

Third Offset Strategy

The committee supports the Department of Defense Third Offset Strategy development efforts. As the Deputy Secretary of Defense has described it, the Third Offset Strategy is focused on strengthening conventional deterrence against great powers through targeted technology investments and new operational and organizational constructs.

The committee is encouraged by the Department's technology investments, including those within the Strategic Capabilities Office (SCO) that adapt existing weapon systems in new ways to get game-changing capabilities into the field more quickly. These efforts align well with the committee's acquisition reform initiatives discussed elsewhere in this Act. The committee is also encouraged by the Department's increased emphasis on wargaming and on strategic initiatives to better understand Russian and Chinese military thinking.

The committee believes that the Third Offset Strategy effort is a useful vehicle for focusing the Department on how to deter and counter the Russian Federation and the

People's Republic of China. Much of this focus has been on technology; however, the committee also believes that further attention must be given to strategic thinking about deterrence, including the relationship between conventional and nuclear deterrence, and the relationship between deterrence and assurance.

The committee encourages the Secretary to review the Department's ability to support rapid decision making and agile force employment, as the committee recognizes that future near-peer conflicts are likely to unfold faster, across multiple regions and warfighting domains. The committee also encourages the Secretary to engage the military services as it recognizes that, for the Third Offset effort to be successful, the military services must embrace it.

Lastly, the committee is concerned about any Third Offset efforts that distract from the primary focus on deterring Russia and China. While the committee acknowledges the benefits of Silicon Valley outreach for technology innovation, particularly through the Defense Innovation Unit Experimental (DIUx), it believes that such commercial technology will not provide an enduring warfighting advantage over near-peer adversaries. (Pages 93-94)

H.Rept. 114-537 also states:

Department of Defense Strategy for Countering Unconventional Warfare

Section 1097 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) directed the Department of Defense to develop a strategy to counter unconventional warfare threats posed by adversarial state and non-state actors. Section 1097 further directed the Secretary of Defense and the Chairman of the Joint Chiefs of Staff to coordinate this strategy with the heads of other appropriate departments and agencies of the U.S. Government. The Secretary is required to submit this strategy to the congressional defense committees not later than 180 days after the date of the enactment of Public Law 114-92.

The committee remains concerned about the growing unconventional warfare capabilities and threats being posed most notably and recently by the Russian Federation and the Islamic Republic of Iran. The committee notes that unconventional warfare is defined most accurately as those activities conducted to enable a resistance movement or insurgency to coerce, disrupt, or overthrow a government or occupying power by operating through or with an underground, auxiliary, or guerrilla force in a denied area. The committee also notes that most state-sponsors of unconventional warfare, such as Russia and Iran, have doctrinally linked conventional warfare, economic warfare, cyber warfare, information operations, intelligence operations, and other activities seamlessly in an effort to undermine U.S. national security objectives and the objectives of U.S. allies alike.

The committee also notes that the Department of Defense may require additional time to fully and properly coordinate the strategy, as directed by section 1097, with the heads of other appropriate departments and agencies of the U.S. Government. Given the importance of this coordination and the interagency aspects of an effective strategy for countering unconventional warfare threats, the committee expects frequent and periodic progress updates by the Department should an extension be required for interagency coordination and the development and delivery of this strategy.

Therefore, the committee directs the Secretary of Defense to provide an update to the Committees on Armed Services of the Senate and the House of Representatives by May 23, 2016, on the completion of the strategy for countering unconventional warfare threats required by section 1097 of Public Law 114-92. (Pages 215-216)

H.Rept. 114-537 also states:

Strategy for Regional Counter-Narrative Capabilities

The committee remains concerned with the success of Islamic State of Iraq and the Levant's (ISIL) messaging and propaganda, and ISIL's ability to persuade, inspire, and recruit from across the globe. ISIL's continued success on the battlefield depends on this messaging, and the group's propaganda attracts recruits and other support that enables the organization to persist. Consequently, the committee believes that the campaign to degrade and defeat ISIL on the battlefield must be mated with a comparable effort to degrade and defeat ISIL's message in the minds of potential supporters.

The committee is also aware that Russian actors have been highly effective in shaping the information environment against Ukrainian forces, as well as against other actors in the region seeking to counter Russian influence. The ambiguity that these information operations create has been critical in the hybrid and unconventional warfare strategy of Russian forces, and have effectively masked, created confusion, or otherwise undermined timely reactions from Western and allied forces.

Not only does the Department need to consider how adversaries use such information strategies to support their operations and undermine our own, but the committee believes that the Department should be developing an integrated strategy that can leverage, and when necessary combine with, allied and partner capabilities to maximize our messaging and its broader effects. The committee also believes that there are useful technologies, training, and strategies that U.S. forces could use to support allied, and international, partner information operations capabilities to mitigate and marginalize adversaries' ability to influence and inspire.

Therefore, the committee directs the Secretary of Defense to develop and submit a strategy for regionally building partnership capacity to the House Committee on Armed Services by June 1, 2017. This strategy should look at means for monitoring, data collection of narratives, and development of networks for countering narratives to support the missions of the combatant commands. Additionally, this strategy should outline how to leverage existing partnership funds to support regional cooperation, as well as prioritize the types of capacity building that could take place, and the regional partners that are most mature to conduct this kind of capacity building. (Pages 247-248)

Senate

S. 2943 as reported by the Senate Armed Services Committee (S.Rept. 114-255 of May 18, 2016) includes multiple provisions that can be viewed as related to the various issues discussed in this CRS report. See, for example, Section 886 on procuring military items from China, Sections 1036-1038 and 1611 on rocket engines and launch vehicles,⁶¹ and Section 1233 on DOD's annual report on military and security developments involving Russia.

S.Rept. 114-255 states:

Department of Defense technology offset program to build and maintain the military technological superiority of the United States

The committee notes that the Department of Defense has undertaken a third offset initiative to help maintain the military technological superiority of the United States. Much like the previous two offset initiatives, the committee is encouraged to learn that the Department recognizes that our adversaries are rapidly developing technologies and strategies that can rival those of the United States and that the Department, in theory, is taking steps to avert such a scenario.

⁶¹ In a statement of Administration policy on S. 2943 as reported, the Administration states that it "strongly objects to sections 1036, 1037, 1038 and 1611." See Executive Office of the *President, Statement of Administration Policy, S. 2943—National Defense Authorization Act for Fiscal Year 2017*, June 7, 2016, p. 10.

As the committee expressed in the Senate report accompanying S. 1376 (S. Rept. 114–49) of the National Defense Authorization Act for Fiscal Year 2016, since World War II, the United States has never faced a more sophisticated and comprehensive array of challenges that threaten to undermine the integrity of the global security that the United States has underwritten for seven decades. Without rapid innovation and bold commitment to technology development and deployment, the committee believes that the United States could be in danger of ceding its authority as the unparalleled military leader in the world today. This concern is made all the more stark by the fact that our adversaries seem to be able to innovate advanced technologies more quickly and efficiently than the Department of Defense, which continues to be hampered by outdated practices and regulations. The committee believes that the ability and foresight necessary to pivot to critical technologies and bring them to development and deployment in an expedited manner is critical to maintaining the status of the United States in global security.

In recognition of these issues, to express support for the Department’s third offset initiative, and to assist the Department in accelerating the program as much as would be reasonable, the Congress established a technology offset program in section 218 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114–92). This program, as laid out in the authorizing legislation, would provide the Department of Defense with additional funds on an annual basis to carry out research, development, prototyping, deployment, and rapid fielding of critical offset technologies. In developing this initiative, the committee authorized the Secretary of Defense up to \$400.0 million for use towards technology offsets. While the committee ultimately gave the Secretary latitude to determine the most critical technologies on which to expend these funds, it also recommended that the Department focus on six technologies that the committee believes to be most vital for maintaining our military technological superiority. In particular, the committee noted its clear intent that approximately half of the authorized funds be used for technologies related to directed energy.

Although the level of funding was ultimately reduced to \$100.0 million through the Defense appropriations process, the committee believed that the program could still serve as a test case to determine the Department’s commitment to and understanding of the technology offsets initiative. Despite the lower level of funding, the committee had intended to ramp up available funds in subsequent years as the Department demonstrated its ability to use the money wisely and effectively for technology offset activities.

The committee is alarmed to learn that this initial \$100.0 million funding has been allocated by the Defense Department to activities that are tangential, at best, to the technology offset initiative. In fact, of the \$100.0 million, the committee believes that only \$6.0 million has been put toward true offset technologies. With such a breakdown, the committee is unfortunately left to conclude that the Department has used money to pay its bills, rather than focus on technologies that are vital to the military technological superiority of the United States. Most distressingly, the committee was disappointed to learn that none of the money was put toward directed energy technologies, thereby showing a comprehensive lack of regard for the clear intentions laid out by the committee and by the Congress as a whole. Taken together, the committee is concerned that the Department is not focusing on strengthening the core mission capability of our military in terms of offensive and defensive weapons systems. Directed energy can fundamentally change warfare, much like precision-guided weapons did when developed during the second offsets efforts.

In addition, the authorizing legislation clearly lays out a procedure whereby the funds should be competed internally with clear criteria and identifying purposes and priorities for the use of the funds. The legislation also directs the Secretary to solicit applications from across the defense research and development enterprise for use of the funds. The

committee was concerned to learn that unfortunately none of this occurred before the money was allocated.

Given these circumstances, the committee has no choice but to refrain from providing additional funding authorization for the technology offset program. Given the Department's clear disregard for the intent of the committee and of Congress in providing the technology offset funding, the committee is unable to justify further expenditure. Without some sort of assurance or demonstration from the Department that it can manage technology offsets funding in a responsible manner, the committee believes that any additional funding for this program would be similarly misused.

The committee notes that the Department has said publicly that up to \$18.0 billion is being devoted to offset technology. Despite repeated requests for a breakdown of this claim and an accounting for where this funding is being applied, the committee remains unaware of the specifics of how the technology offset program is being carried out. Given the Department's performance regarding the authorized offset funds, the committee remains wary of the Department's ability to truly carry out a third offset program and see it through to fruition. (Pages 66-68)

S.Rept. 114-255 also states:

Third offset technology—industrial base concerns

The Committee acknowledges the critical role that the Third Offset strategy plays in assuring long-term national security but to date, has not received a clear interpretation of what this strategy consists of. Without a clear explanation from the Department of Defense, the Committee is concerned about the viability of the U.S. industrial base to support the Third Offset strategy. Therefore, the Committee directs the Secretary of Defense to submit to the Committee a report on the Third Offset strategy, including how Third Offset programs will overcome capability or capacity challenges posed by U.S. adversaries, as well key capability shortfall areas that 3rd offset does not address. It will further submit its top five acquisition priorities, how they fit into the Third Offset strategy and to what extent the Department believes the U.S. industrial base can fill gaps in ability to support the strategy. The committee directs the Department submit both the strategy report and its acquisition findings and views to the Senate Armed Services Committee no later than one year after the enactment of this Act. (Page 78)

S.Rept. 114-255 also states:

Nuclear force readiness in Europe

The budget request included \$9.5 billion for Operation and Maintenance, Air Force (OMAF) for Overseas Contingency Operation, of which \$1.3 billion was for SAG 011A Primary Combat Forces.

According to the 2014 Quadrennial Defense Review (QDR), "U.S. nuclear forces contribute to deterring aggression against U.S. and allied interests in multiple regions, assuring U.S. allies that our extended deterrence guarantees are credible, and demonstrating that we can defeat or counter aggression if deterrence fails." Alluding to Russia's "escalate to de-escalate" nuclear doctrine, the QDR states that "U.S. nuclear forces help convince potential adversaries that they cannot successfully escalate their way out of failed conventional aggression against the United States or our allies and partners." "Effective deterrence," according to Admiral Haney, the commander of United States Strategic Command, "requires planning, exercises, coordination with the regional commands, and a force posture capable of carrying out strikes." Referring to NATO's nuclear deterrent, the commander of U.S. European Command, General Breedlove, has said "it is important that we make sure it is ready, capable, and credible."

The committee notes that while the European Reassurance Initiative is aimed at assuring allies and reinforcing conventional deterrence and defense, deterring Russian aggression

in Europe includes an important nuclear component. To increase the credibility of NATO's nuclear deterrent, the United States must continue the ongoing modernization of U.S. nuclear forces and ensure that nuclear forces assigned to the NATO mission are survivable, well-exercised, and increasingly ready to counter Russian nuclear doctrine, which calls for the first use of nuclear weapons. Such measures are consistent with the administration's emphasis on "the introduction of deterrence measures to better set European posture in the wake of Russian aggression."

Accordingly, the committee recommends an increase of \$28.0 million for SAG 011A Primary Combat Forces to enhance the readiness and capability of U.S. nuclear forces assigned to support the NATO nuclear deterrence mission. These funds may be used for the following purposes and any other activities deemed necessary by the Department of Defense to support the nuclear mission in Europe: enhancing the readiness, training, and exercising of dual-capable aircraft (DCA); in support of and to promote additional allied nuclear burden-sharing activities; in support of regional nuclear command and control capabilities; and for the development and exercising of a concept of operations to improve DCA alert status and readiness through dispersal. The Secretary of Defense shall provide a report to the Defense Committees within 90 days of the enactment of this Act detailing how the additional funding will be allocated. (Pages 336-337)

FY2017 DOD Appropriations Act (H.R. 5293/S. 3000)

House

Section 8102 of H.R. 5293 as reported by the House Appropriations Committee (H.Rept. 114-577 of May 19, 2016) prohibits DOD from entering into a contract, memorandum of understanding, or cooperative agreement with, or making a grant to, or providing a loan or loan guarantee to Rosoboronexport, a Russian military import/export corporation, or any subsidiary of Rosoboronexport.

H.Rept. 114-577 states:

ACCESS TO TRUSTED MICROELECTRONICS

The Committee is concerned by the risk that reliance on foreign suppliers of critical information technology components and suppliers with connections to foreign governments poses. However, the Committee is aware of efforts the Department of Defense has initiated to address concerns with access to microelectronics from trusted sources. The fiscal year 2017 budget request includes funding for a multi-faceted approach designed to protect microelectronics designs and intellectual property, while at the same time enabling access to advanced technology from the commercial sector. The Committee is encouraged by the Department's engagement with industry, academia, national laboratories, and other government agencies to both implement near-term actions and develop a long-term science and technology based approach that reduces risk of reliance on sole source foundry operations.

The Committee believes that the Department has appropriately scoped and adequately funded this effort. The consolidation of the Department of Defense Trusted Foundry contract management efforts at the Defense Microelectronics Activity effectively preserves the organization's role, while at the same time initiates development of a new trust approach to shift away from the traditional trust model. This provides a sensible and affordable investment strategy that will enable United States intelligence and weapons systems to remain secure and technologically advanced. The Committee encourages the Secretary of Defense to inform the congressional defense committees of issues with foreign suppliers of critical information technology components and progress on the implementation of the new trust approach. (Pages 263-264)

Senate

Section 8101 of S. 3000 as reported by the Senate Appropriations Committee (S.Rept. 114-263 of May 26, 2016) prohibits DOD from entering into a contract, memorandum of understanding, or cooperative agreement with, or making a grant to, or providing a loan or loan guarantee to Rosoboronexport or any subsidiary of Rosoboronexport.

Countering Information Warfare Act of 2016 (S. 2692)

Senate

S. 2692 was introduced on March 16, 2016. The bill directs the Secretary of State, in coordination with the Secretary of Defense, the Director of National Intelligence, the Broadcasting Board of Governors, and other relevant departments and agencies, to establish a Center for Information Analysis and Response that would “lead and coordinate the collection and analysis of information on foreign government information warfare efforts,” “establish a framework for the integration of critical data and analysis on foreign propaganda and disinformation efforts into the development of national strategy,” and “develop, plan, and synchronize, in coordination with the Secretary of Defense, the Director of National Intelligence, the Broadcasting Board of Governors, and other relevant departments and agencies, whole-of-government initiatives to expose and counter foreign information operations directed against United States national security interests and proactively advance fact-based narratives that support United States allies and interests.”

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