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Cover: A Hull Maintenance Technician Fireman cuts a piece of stainless steel aboard the Arleigh Burke-class DDG 100 while underway conducting a composite training unit exercise with the Nimitz Carrier Strike Group in preparation for deployment in the Pacific Ocean, April 2017. U.S. Navy photo by Mass Communication Specialist 3rd Class Deanna C. Gonzales. Design by Kamilla Gunzinger.

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CHAPTER 1

Introduction

The U.S. national security community has, in recent years, begun to focus its attention on the need to compete with China and Russia. The move to embrace the reality of great power competition, and with it the prospect of great power war, comes after a three-decade respite from serious thinking about what it means to face an economically powerful and technologically sophisticated adversary in peace and in war.

The three decades that separate us from the end of the Cold War represent a professional lifetime. The experience of the Cold War lies outside the memory of all but the most senior national security professionals. The vast majority of officers in the U.S. armed forces and civil servants in the U.S. government entered service after the fall of the Berlin Wall and the collapse of the Soviet Union. For them, the notion of great power competition is, at best, a theoretical and historical matter; it is certainly not one of personal experience.

The novelty of the current situation can only be fully appreciated if we look back over the past thirty years. The United States experienced a period of geopolitical dominance after the end of the Cold War reinforced by its preponderance of military power, particularly in the areas of precision strike and information technology.[1] The U.S. military displayed this power during the 1991 Gulf War, during which the United States assembled a large and capable multinational coalition and deployed its military forces effectively to drive Iraqi forces out of Kuwait.

The three decades that followed the end of the Cold War can be divided into two periods. For the first decade after the collapse of the Soviet Union, the United States found itself essentially unopposed. Lacking a superpower rival, defense planning in the 1990s focused on regional

1 Charles Krauthammer, "The Unipolar Moment," *Foreign Affairs* 70, no. 1, 1990; and Francis Fukuyama, *The End of History and the Last Man* (New York: Penguin, 1992).

adversaries such as Iraq and North Korea as well as operations other than war.[2] Force planning toward the end of the George H. W. Bush period, embodied in the drafting of the 1992 Defense Planning Guidance, sought to consolidate the gains the United States reaped with the end of the Cold War and prevent a new would-be hegemon from arising.[3] The Clinton administration similarly sought, through its national security strategy of "engagement and enlargement," to increase the ranks of the world's democracies on the theory that democracies do not wage war on one another.[4]

Spurred on by the performance of U.S. forces in the Gulf War, military and civilian leaders urged the U.S. armed forces to transform themselves to exploit the information revolution throughout the 1990s. Despite such efforts, the 1990s was in many ways a lost decade.[5] The armed services embraced the notion of a revolution in military affairs (RMA) rhetorically but did remarkably little to adapt to the information age. There was a widespread tendency to mouth transformation without making any hard choices. Few of the major acquisition programs initiated during the late Cold War were terminated. Instead, their advocates put old wine in new bottles labeled "transformation." Although Strategic Air Command (SAC)—an icon of the nuclear revolution—became U.S. Strategic Command and U.S. Atlantic Command became U.S. Joint Forces Command, there was little else in the way of large-scale organizational change. And there were only minor changes in the structure of the armed forces and officer careers.

Underlying the failure of transformation in the 1990s was the fact it was driven by opportunity rather than threat: the United States should pursue new ways of war that would enable it to win wars faster, cheaper, and more decisively. Characteristic of this view was defense analyst James Blaker's statement: "The potency of the American RMA stems from new military systems that will create, through their interaction, an enormous military disparity between the United States and any opponent. Baldly stated, U.S. military forces will be able to apply military force with dramatically greater efficiency than an opponent, and do so with little risk to U.S. forces."[6]

The confidence, even *hubris*, of the 1990s permeated the U.S. officer corps. Officers in the late 1990s perceived the benefits of transformation but refused to believe that adversaries could

2 See Mark Gunzinger, *Shaping America's Future Military: Toward a New Force Planning Construct* (Washington, DC: Center for Strategic and Budgetary Assessments, 2013); and Mark Gunzinger, Bryan Clark, David Johnson, and Jesse Sloman, *Force Planning for The Era of Great Power Competition* (Washington, DC: Center for Strategic and Budgetary Assessments, 2017).

3 See Eric S. Edelman, "The Strange Career of the 1992 Defense Planning Guidance," in Melvyn P. Leffler and Jeffrey W. Legro, eds., *In Uncertain Times: American Foreign Policy after the Berlin Wall and 9/11* (Ithaca: Cornell University Press, 2011), pp. 63–77; and Alexandra Homolar, "How to Last Alone at the Top: U.S. Strategic Planning for the Unipolar Era," *Journal of Strategic Studies* 34, no. 2, 2011.

4 White House, *A National Security of Engagement and Enlargement* (Washington, DC: White House, July 1994).

5 See Thomas G. Mahnken, *Technology and the American Way of War* (New York: Columbia University Press, 2008), chapter 5.

6 James R. Blaker, "The American RMA Force: An Alternative to the QDR," *Strategic Review*, Summer 1997, p. 22.

acquire precision-strike capabilities themselves. A survey of 1,900 U.S. officers attending professional military education institutions conducted in 2000 found that most tended to believe that the emerging RMA would make it easier for the United States to use force in order to achieve decisive battlefield victories. Most also believed that it would allow the United States to engage in high-intensity operations with substantially reduced risk of casualties and that it would greatly reduce the duration of future conflicts. They also tended to feel that the United States would have a greatly enhanced ability to locate, track, and destroy enemy forces in limited geographic areas.[7] By contrast, these same officers were skeptical of the ability of potential adversaries to exploit the precision-strike revolution to harm the United States. For example, only 9 percent of officers surveyed in 2000 believed that future adversaries would be able to use long-range precision-strike weapons such as ballistic and cruise missiles to destroy fixed military infrastructure, including ports, airfields, and logistical sites. Only 12 percent believed they would be able to use such weapons to attack carrier battle groups at sea.[8]

If the United States was essentially unopposed in the 1990s, in the decade and a half following the September 11, 2001 terrorist attacks, it found itself continuously engaged in irregular warfare in Iraq, Afghanistan, and beyond. The U.S. armed forces, the Department of Defense (DoD), and the national security community more broadly were focused on the missions of counter-insurgency and counter-terrorism. Both top-down innovation and bottom-up adaptation were focused in these areas.[9]

During this period, defense planners emphasized the need to wage and win the wars we were fighting over the responsibility to prepare for the wars we might have to fight in the future. For example, in 2008 Secretary of Defense Robert Gates criticized the Defense Department for what he termed "Next-War-itis," which he characterized as the Services' emphasis on developing capabilities useful for some "hard to conceive" conventional great power war when "the kinds of capabilities we will most likely need in the years ahead will often resemble the kinds of capabilities we need today."[10] For a decade and a half after September 11, the United States focused its attention on counterterrorism (CT) and counterinsurgency (COIN) while investing in capabilities—like special operations forces (SOF) and Mine-Resistant Ambush-Protected (MRAP) vehicles—that, although vital to the wars in Iraq and Afghanistan and against Al Qaeda, would be of limited utility if any near-peer power did decide to directly challenge U.S. dominance.

7 Thomas G. Mahnken and James R. FitzSimonds, *The Limits of Transformation: Officer Attitudes Toward the Revolution in Military Affairs* (Newport, RI: Naval War College Press, 2003), chapter 6.

8 Ibid., chapter 7.

9 See Nina A. Kollars, "War's Horizon: Soldier-Led Adaptation in Iraq and Vietnam," *The Journal of Strategic Studies* 38, no. 4, 2015; James A. Russell, *Innovation, Transformation, and War: Counterinsurgency Operations in Anbar and Ninewa Provinces, Iraq, 2005-2007* (Stanford: Stanford University Press, 2011).

10 Robert Gates, "Secretary Gates' Remarks to the Heritage Foundation on 'Next War-itis'," speech, May 13, 2008, available at http:// archive.defense.gov/Speeches/Speech.aspx?SpeechID=1240.

Whereas the United States in the oughts and early teens was focused on defeating Al Qaeda and its affiliates, China and Russia were concentrating on how to achieve their goals without drawing a U.S. military response or, failing that, to defeat the United States. As a result, U.S. qualitative advantages have eroded at the strategic, operational, and tactical levels as economic and military power has diffused.

Recent years have witnessed a growing acknowledgement that we are once again in a period defined by great power competition—and with it, an increased possibility of great power war. In 2014, China's island-building campaign in the South China Sea and maritime activity in the East China Sea seemed to signify that Beijing was increasingly dissatisfied with the international status quo and willing to confront the United States and its allies to revise it. That same year, the Russian annexation of Crimea and aggression in Ukraine similarly signaled Russia's willingness to take on the West.

The emergence of great power competition called into question the overly optimistic assumptions that undergirded post-Cold War and post-9/11 U.S. defense policy, to include the 2012 *Defense Strategic Guidance* and the 2014 *Quadrennial Defense Review*.[11] In the final years of the Obama administration, senior officials such as then-Secretary of Defense Ash Carter began speaking openly about great power competition, and the Joint Chiefs of Staff reportedly adopted a planning construct that included the need to plan against both China and Russia.[12]

Concern over great power competition has continued and intensified in the Trump administration. Indeed, the administration's 2017 *National Security Strategy* and 2018 *National Defense Strategy* are premised on the existence of a multi-dimensional competition between the United States, on the one hand, and China and Russia on the other. As the *National Security Strategy* notes:

> After being dismissed as a phenomenon of an earlier century, great power competition returned. China and Russia began to reassert their influence regionally and globally. Today, they are fielding military capabilities designed to deny America access in times of crisis and to contest our ability to operate freely in critical commercial zones during peacetime. In short, they are contesting our geopolitical advantages and trying to change the international order in their favor.[13]

11 *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: DoD, January 2012); and *Quadrennial Defense Review 2014* (Washington, DC: DoD, 2014). On this point, see *Ensuring a Strong U.S. Defense for the Future: The National Defense Panel Review of the 2014 Quadrennial Defense Review* (Washington, DC: U.S. Institute for Peace, 2014).

12 Max Fisher, "Full Transcript: Vox Interviews Defense Secretary Ash Carter," April 13, 2016, available at https://www.vox.com/2016/4/13/11333276/ash-carter-transcript; and Colin Clark, "CJCS Dunford Calls for Strategic Shifts; 'At Peace or at War is Insufficient'," *Breaking Defense*, September 21, 2016.

13 *National Security Strategy of the United States of America* (Washington, DC: White House, 2017), p. 27.

The document goes on to state:

> China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. They are determined to make economies less free and less fair, to grow their militaries, and to control information and data to repress their societies and expand their influence.[14]

Indeed, the document notes that:

> China and Russia want to shape a world antithetical to U.S. values and interests. China seeks to displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor. Russia seeks to restore its great power status and establish spheres of influence near its borders.[15]

The unclassified summary of the Department of Defense's 2018 *National Defense Strategy* echoes these themes, noting "The reemergence of long-term strategic competition, rapid dispersion of technologies, and new concepts of warfare and competition that span the entire spectrum of conflict require a Joint Force structured to match this reality."[16] The document marks a shift in planning when it emphasized that "Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security."[17] It further notes the importance of harnessing all the tools of national power:

> A long-term strategic competition requires the seamless integration of multiple elements of national power—diplomacy, information, economics, finance, intelligence, law enforcement, and military. More than any other nation, America can expand the competitive space, seizing the initiative to challenge our competitors where we possess advantages and they lack strength. A more lethal force, strong alliances and partnerships, American technological innovation, and a culture of performance will generate decisive and sustained U.S. military advantages.[18]

Recent past administrations tended to be divided into those with national security concerns, who saw the Sino-American relationship in zero-sum ("win-lose") terms, and those with economic concerns, who saw the relationship between Washington and Beijing in positive-sum ("win-win") terms. At the same time, there was a reluctance to talk about the relationship with China in competitive terms because of the belief that doing so would create a self-fulfilling prophecy. By contrast, today there is broad acceptance of Sino-American competition as a fact. Indeed, senior administration officials in both the national security and economic spheres view the Sino-American relationship as competitive and zero-sum. Moreover, recognition of competition with China represents one of the few areas of bipartisan consensus in Congress and among national security professionals.

14 Ibid., p. 2.

15 Ibid., p. 25.

16 *Summary of the 2018 National Defense Strategy of the United States of America* (Washington, DC: DoD, 2018), p. 1.

17 Ibid.

18 Ibid., 5.

There is also a growing understanding that competition with China is multi-dimensional. The fruits of China's military modernization have been on display for some time and include a growing arsenal of ballistic and cruise missiles, wide-area surveillance and targeting, increasingly sophisticated integrated air defense system (IADS), stealth aircraft, submarines, modern warships, nuclear weapons, and space and cyber capabilities.[19] China's hybrid operations in the South China and East China seas have also received increasing attention.[20] There is also a dawning awareness of the fact that the Chinese Communist Party is conducting a series of political warfare campaigns against the United States and its allies, among others.[21] Chinese leadership has also been conducting malign economic statecraft by exploiting China's economic leverage and the allure of China's domestic market, to create influence over American corporations.

American political leaders have been increasingly willing to talk about the multidimensional challenge that China poses. For example, in an October 2018 speech, Vice President Mike Pence called attention to China's behavior. Pence noted that "Beijing is employing a whole-of-government approach to advance its influence and benefit its interests. It's employing this power in more proactive and coercive ways to interfere in the domestic policies and politics of the United States."[22] Pence went on to highlight the Chinese Communist Party's malign political influence in the United States and abroad:

> Beijing has mobilized covert actors, front groups, and propaganda outlets to shift Americans' perception of Chinese policies. As a senior career member of our intelligence community recently told me, what the Russians are doing pales in comparison to what China is doing across this country. Senior Chinese officials have also tried to influence business leaders to condemn our trade actions, leveraging their desire to maintain their operations in China.[23]

Pence also highlighted the Chinese government's role in the U.S. entertainment industry, noting that "Beijing routinely demands that Hollywood portray China in a strictly positive light, and it punishes studios and producers that don't." He also emphasized the Chinese government's ties to academia: "Beijing provides generous funding to universities, think tanks, and scholars, with the understanding that they will avoid ideas that the Communist Party finds dangerous or offensive."[24]

19 See Thomas G. Mahnken, Grace B. Kim, and Adam Lemon, *Piercing the Fog of Peace: Developing Innovative Operational Concepts for a New Era* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019).

20 See Ross Babbage et al., *Stealing A March: Chinese Hybrid Warfare in the Indo-Pacific: Issues and Options for Allied Defense Planners*, two volumes (Washington, DC: Center for Strategic and Budgetary Assessments, 2019).

21 See Thomas G. Mahnken, Ross Babbage, and Toshi Yoshihara, *Countering Comprehensive Coercion: Competitive Strategies Against Authoritarian Political Warfare* (Washington, DC: Center for Strategic and Budgetary Assessments, 2018); Ross Babbage et al., *Winning Without Fighting: Chinese and Russian Political Warfare Campaigns and How the West Can Prevail* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019).

22 "Vice President Mike Pence's Remarks on the Administration's Policy Toward China," October 4, 2018, available at https://www.hudson.org/events/1610-vice-president-mike-pence-s-remarks-on-the-administration-s-policy-towards-china102018.

23 Ibid.

24 Ibid.

Despite this growing recognition, the U.S. government's adaptation to the requirements of great power competition (and potentially conflict) in the 21st century is at best incomplete. This monograph seeks to perform a first-order audit of the tools needed to carry out great power competition and wage great power war. It does this by examining how the United States adapted institutionally to the multi-dimensional challenge posed by the Soviet Union during the Cold War in the areas of alliances; defense organization; arms competition and arms control; science, technology, and innovation; economy; political warfare; and internal security. It then uses that experience to form recommendations for how the United States might better adapt to the demands of great power competition in the 21st century. The point is not to graft the Cold War experience onto today's challenge. In many ways the strategic competition with China is even more complex and difficult then the U.S.–Soviet strategic competition during the Cold War. An understanding of the past can, however, offer policymakers a point of departure for thinking about the present and the future.

CHAPTER 2

Coping with Great Power Competition: The Cold War

This chapter looks back on the U.S. response to the multi-dimensional challenge posed by the Soviet Union during the Cold War. It begins with an overview of the efforts that the United States undertook to compete with the Soviet Union before discussing in-depth measures in the areas of alliances; defense organization; arms competition and arms control; science, technology, and innovation; economy and development; political warfare; and internal security.

Overview

To get a better sense of the full range of instruments that the United States developed to compete with the Soviet Union during the Cold War, CSBA conducted an inventory of the organizations and institutions that the United States created between 1945 and 1990 for the express purpose of advancing U.S. interests in competition with the Soviet Union (see Appendix A). Not included in this list are presidential policies, such as President Carter's grain embargo against the Soviet Union in response to the Soviet invasion of Afghanistan in 1979 or Reagan's sanctions on Poland over the declaration of martial law in 1986.[25] It also excludes presidential doctrines, such as the Truman Doctrine that pledged to assist those under threat of Soviet coercion. Nor does it include organizations developed during the Cold War that were not closely tied to great power competition, such as President Ford's Economic Policy Board.

An overview of these initiatives reveals their diversity: 18 involved economics and development, 9 diplomacy and governance, 8 education, 7 arms control, 6 information and media, 5 internal security, and 4 science and technology. Two-thirds were confined to the United States, whereas one-third involved international partners.

25 Lee Lescaze, "Reagan Takes Economic Action Against Poland," *Washington Post*, December 24, 1981, available at https://www.washingtonpost.com/archive/politics/1981/12/24/reagan-takes-economic-action-against-poland/77d14879-cc44-4682-bc3f-5717c70bc845/

The history of the institutional dimension of the Cold War is one of earthquakes and tremors—large-scale institutional creation and reform in response to geopolitical change intermixed with less extensive efforts brought on by the inauguration of new presidential administrations. Large-scale institutional innovation generally came in response to perceived strategic and operational challenges that existing organizations were inadequate to meet. In addition, each new presidential administration had opportunities to dismantle old organizations, repurpose and combine existing ones, and create new ones.

The process of coming to grips with what was new about competition with the Soviet Union was a protracted one. Not surprisingly, most programs began during the Truman and Eisenhower administrations at the outset of the Cold War. The period from 1945–1950 saw the greatest activity with the creation of 16 new institutions, and 1948 was the single year that saw the greatest activity. Far fewer new programs and organizations were created between 1958 and 1970. The 1970s and 1980s saw a resurgence of activity as the Carter and Reagan administrations responded to renewed Soviet assertiveness.

Some institutional change was backward looking, while other innovations were forward looking. That is, some institutions were brought into being as a result of the failure (real or perceived) of existing institutions, while others were created to deal with present or future challenges. For example, the institutions created by the National Security Act of 1947, including the Department of Defense, National Security Council, and the Central Intelligence Agency, were less about equipping the United States to compete effectively with the Soviet Union but an attempt to embody the lessons of World War II. The fact, let alone scope, of competition with the Soviet Union was still becoming apparent as the legislation was being drafted.

The institutions created to wage the Cold War have tended to endure. Whereas one-third were eliminated or subsumed in other organizations during the Cold War, only 10 percent, including such organizations as the U.S. Information Agency (USIA) and Office of Technology Assessment (OTA) were dismantled after its end. Indeed, there is no evidence of a systemic effort to dismantle Cold War-era programs after the dissolution of the Soviet Union. As a result, more than half of the institutions developed to wage the Cold War are still in place today, even if their purpose has changed.

America's tools of Cold War competition with the Soviet Union can be divided into the areas of alliances; defense organization; arms competition and arms control; science, technology, and innovation; economy and development; political warfare; and internal security.

Alliances

The early Cold War saw the creation of a wave of treaties binding the United States to allies across Eurasia. Those alliances that formalized pre-existing strong diplomatic relationships, such as those with the states of Western Europe and the British Commonwealth, proved to be far more successful than those in the Middle East and Southeast Asia, where the United States sought to develop diplomatic and security cooperation without a robust foundation.

Closest to home, the Organization of American States was founded on April 30, 1948 to promote regional security and cooperation among its member states in North and South America.

The North Atlantic Treaty, signed on April 4, 1949, created the North Atlantic Treaty Organization (NATO), which bound the United States and Canada to the European states on the front lines of competition with the Soviet Union. Article V of the North Atlantic Treaty guarantees that an attack on one NATO member is an attack on all and thus commits the United States to the defense of its European allies. NATO has an institutionalized structure, with a headquarters and staff. That institutionalization, in turn, drove allied information sharing, planning, and interoperability. It also gave America's European allies a louder voice in U.S. defense circles.

The 1951 Australia, New Zealand, United States (ANZUS) Treaty bound the three countries to recognize that an armed attack in the Pacific on any of them would endanger the safety of the others. Whereas NATO is institutionalized, the ANZUS Treaty was not. New Zealand was suspended from ANZUS in 1986 after it initiated a nuclear-free zone in its territorial waters. However, it remains a non-binding agreement between Australia and New Zealand and, separately, Australia and the United States, to cooperate on military matters in the Pacific region and beyond.

The U.S.–Japan alliance grew out of Japanese disarmament at the end of World War II and the ongoing threat of Soviet aggression against Japan. The Treaty of Mutual Cooperation and Security between the United States and Japan was first signed in San Francisco in 1951 and later amended in 1960. The treaty established that any attack against Japan or the United States perpetrated within Japanese territorial administration would be dangerous to the respective countries' own peace and safety. It requires both countries to act to meet the common danger. To support that requirement, it provided for the continued presence of U.S. military bases in Japan.

The Mutual Defense Treaty Between the United States and the Republic of Korea was signed on October 1, 1953, two months after the signing of the armistice agreement halting (but not ending) the Korean War. The agreement commits the two nations to provide mutual aid if either is attacked and allows the United States to station military forces in South Korea in consultation with the South Korean government.

The 1955 Mutual Defense Treaty between the United States and the Republic of China served to bind Taiwan to the United States and deter the People's Republic of China from attacking and conquering the island. It remained in force until the United States recognized the People's Republic of China in 1979, at which time it was partially superseded by the Taiwan Relations Act.

In 1958, in the face of a growing Soviet bomber threat to North America, the United States and Canada joined together to conclude the North American Air Defense (NORAD) agreement. The bi-national North American Air Defense Command (since 1981 the North American Aerospace Defense Command) was established to protect North America against possible air, missile, or space attacks.[26]

Whereas NATO, NORAD, and the alliances with Australia, Japan, and the Republic of Korea have endured, other early Cold War alliances have not. The Southeast Asian Treaty Organization, established in 1955, was meant to block further communist expansion in Southeast Asia. The alliance brought together Australia, New Zealand, Pakistan, the Philippines, Thailand, France, the United Kingdom, and the United States. SEATO was dissolved on June 30, 1977 after the fall of South Vietnam, Cambodia, and Laos to communism; the withdrawal of Pakistan and France; and American retrenchment.

The Central Treaty Organization (CENTO), originally known as the Baghdad Pact or the Middle East Treaty Organization, was formed by Iran, Iraq, Pakistan, Turkey, and the United Kingdom in 1955, with the United States joining its military committee in 1958. It committed the members to mutual cooperation and non-intervention in each other's affairs. Meant to be an instrument of containment, it failed to prevent the expansion of Soviet influence to non-member states in the region such as Egypt, Syria, Iraq (which withdrew from the pact in 1958), the People's Democratic Republic of Yemen, Somalia, and Libya. It was dissolved in 1979 following the Iranian revolution.

A central dimension of America's Cold War alliances has been extended nuclear deterrence: the pledge to use nuclear weapons in defense of allies.[27] Historically, one way to strengthen extended nuclear deterrence was to deploy—either permanently or episodically—nuclear weapons to the territory of U.S. allies. During the Cold War, such deployments were routine. In September 1991, however, George H.W. Bush's Presidential Nuclear Initiative unilaterally withdrew all ground-launched short-range weapons deployed overseas and ceased deployment of tactical nuclear weapons on surface ships, attack submarines, and land-based naval

26 *A Brief History of NORAD* (Peterson AFB, CO: Office of History, North American Aerospace Defense Command, 2013), available at https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf.

27 Evan Braden Montgomery, *Extended Deterrence in the Second Nuclear Age: Geopolitics, Proliferation, and the Future of U.S. Security Commitments* (Washington, DC: Center for Strategic and Budgetary Assessments, 2016).

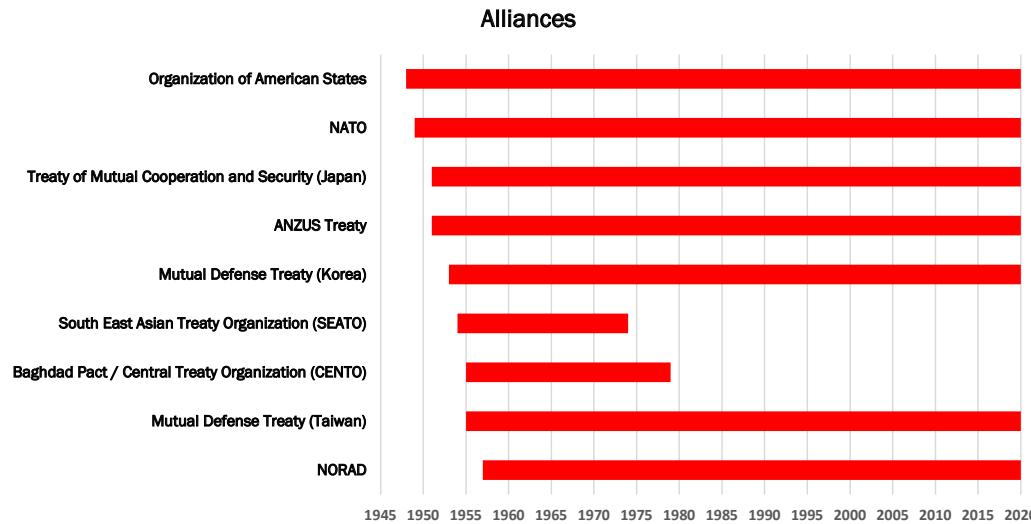
aircraft under normal peacetime circumstances.[28] For the next two decades the United States maintained nuclear-armed Tomahawk land-attack cruise missiles for extended nuclear deterrence in Asia. In 2010, however, the Obama administration's Nuclear Posture Review called for their retirement.[29]

Conclusion

Some of the United States' Cold War alliances have not only survived, but thrived. NORAD today not only protects North America against air and missile attack, but also provides warning of maritime threats. NATO has expanded its membership and has deployed beyond Europe. In a historical reversal, the Australia–United States alliance saw Australian forces deployed in defense of the United States in the aftermath of the September 11, 2001 terrorist attacks. Other alliances, such as SEATO and CENTO, bore marginal benefits to the United States and disappeared when the interests of the members diverged.

Today there seems little sentiment in favor of concluding new alliances. Public and elite sentiment has tilted away from the United States taking on new responsibilities, and treaties that embody international commitments face a difficult path to ratification in the Senate. More likely are efforts to institutionalize further existing alliances.[30] Efforts here could include measures to promote interoperability among allies and institute new mechanisms for consultation and joint planning.

FIGURE 1: ALLIANCES



28 See the documents in Jeffrey A. Larsen and Kurt J. Klingenberger, eds., *Controlling Non-Strategic Nuclear Weapons: Obstacles and Opportunities* (Washington, DC: USAF Institute for National Security Studies, 2001).

29 DoD, *Nuclear Posture Review Report* (Washington, DC: DoD, April 2010).

30 See Michael Green, ed., *Ironclad: Forging a New Future for America's Alliances* (Washington, DC: Center for Strategic and International Studies, 2019).

Defense

The topic of how the Cold War shaped the Department of Defense and the U.S. armed forces is an extensive one that deserves to be the focus of its own study. This section focuses upon two areas where the U.S. government undertook reforms in order to compete more effectively with the Soviet Union: defense organization and the advent of net assessment and competitive strategies.

Many of the early Cold War reforms of defense organization were more backward looking than forward looking. As noted above, the National Security Act of 1947 that brought the Department of Defense into being had more to do with the perceived inadequacies of the organizations that had fought World War II than the looming challenge of the Cold War. Similarly, the move to divide the globe into geographic combatant commands, memorialized in the Unified Command Plan, was also the result of America's experience during World War II, even if its subsequent evolution was the result of the U.S. ascent to superpower status and the need to wage a long-term competition with the Soviet Union.[31]

Mechanisms within the Department of Defense to plan over the long term for competition with the Soviet Union took decades to emerge. For example, it was not until the Nixon administration that DoD stood up an Office of Net Assessment (ONA), first in the National Security Council staff, and soon after that in the Pentagon.[32] The institutionalization of net assessment within the Defense Department was not a product of the Cold War *per se*, but rather the eventual recognition that the competition with the Soviet Union was likely to be long-term and the margin on U.S. military superiority was diminishing.

As established by Secretary of Defense Jim Schlesinger, ONA was to coordinate net assessment activities in the Pentagon, perform assessments directly for the Secretary, encourage the military services and others to perform assessments (initially of strategic nuclear forces, the NATO/Warsaw Pact balance, the maritime balance, and the military investment balance between the United States and the Soviet Union), and carry out long-term improvements in analytical tools and techniques.[33]

The principal ONA customers were senior officials of the Department of Defense, first and foremost of which was the Secretary of Defense. Its products were intended to assist in the management of strategic issues by highlighting important problems and opportunities in a

31 Edward J. Drea et al., *History of the Unified Command Plan, 1946-2012* (Washington, DC: Joint History Office, 2013).

32 See Barry D. Watts, "Net Assessment in the Era of Superpower Competition," and Thomas G. Mahnken, "Net Assessment and its Customers," in Thomas G. Mahnken, ed., *Net Assessment and Military Strategy: Retrospective and Prospective Essays* (Amherst: Cambria Press, 2020).

33 Office of the Secretary of Defense, Historical Office, Oral History Collection, Washington, DC. Interview with Andrew W. Marshall by Alfred Goldberg and Maurice Matloff, June 1, 1992, p. 19. Parts two and three of this series of interviews are available at https://history.defense.gov/Historical-Sources/Oral-History-Transcript-3/.

timely way to permit senior leaders to do something about them.[34] Because most consequential decisions made by Secretaries of Defense dealt with the future, ONA needed to look out years or decades.

If it took years to establish a net assessment function within the Defense Department, it took even longer to incorporate a formal competitive strategies approach to inform U.S. defense planning. Andrew W. Marshall first developed the idea of long-term competitive strategies while working as an analyst at the RAND Corporation in the late 1960s.[35] He first raised the idea of incorporating such a perspective in defense planning to Secretary of Defense Donald Rumsfeld in 1976.[36] Nonetheless, competitive strategies only began to take hold informally in defense thinking during the Carter administration and was not institutionalized until the Reagan administration in the form of the Competitive Strategies Initiative.[37]

Three organizations were established to support the Competitive Strategies Initiative. The Competitive Strategies Council was chaired by the Secretary of Defense and included the Chairman of the Joint Chiefs of Staff, service secretaries and chiefs, undersecretaries, directors of both the National Security Agency and the Defense Intelligence Agency, and the Assistant Secretary of Defense for Program Analysis and Evaluation. Then came the Competitive Strategies Steering Group chaired by the Secretary's Assistant for Competitive Strategies, which included the Director of Net Assessment, assistant secretaries for policy and international security affairs with representatives of the Undersecretary of Defense for Acquisition, service secretaries and chiefs, and the Director of the Defense Intelligence Agency. For day-to-day management of the initiative, Weinberger established the Competitive Strategies Office. He also established two interdepartmental task forces: one on competitive opportunities within the context of high-intensity conventional warfare in Europe, which proposed accelerated fielding of precision conventional munitions, wide-area sensors, and battle networks; and the other on non-nuclear strategic capabilities using precision munitions and long-range systems.[38]

34 Andrew F. Krepinevich and Barry D. Watts, *The Last Warrior: Andrew Marshall and the Shaping of Modern American Defense Strategy* (New York: Basic Books, 2016), p. 103.

35 Andrew W. Marshall, *Long-Term Competition with the Soviets: A Framework for Strategic Analysis*, R-862-PR (Santa Monica, CA: RAND Corporation, 1972).

36 Andrew W. Marshall and James G. Roche, "Strategy for Competing with the Soviets in the Military Sector of the Continuing Political-Military Competition," unpublished paper, July 1976, available at http://goodbadstrategy.com/wp-content/downloads/StrategyforCompetingwithUSSR.pdf.

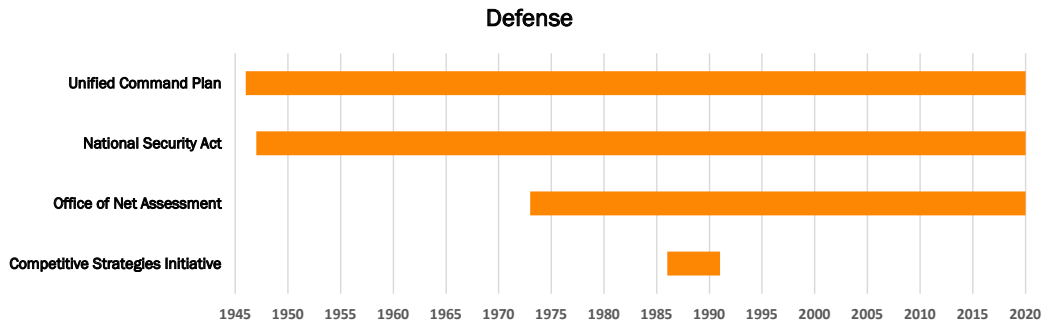
37 Daniel I. Gouré, "Overview of the Competitive Strategies Initiative," in Thomas G. Mahnken, ed., *Competitive Strategies for the 21st Century: Theory, History, and Practice* (Palo Alto, CA: Stanford University Press, 2012).

38 See David J. Andre, *New Competitive Strategies Tools and Methodologies*, vol. 1, *Review of the Department of Defense Competitive Strategies Initiative, 1986–1990* (McLean, VA: Science Applications International Corporation, 1990).

Conclusion

Although the competitive strategies approach was only institutionalized in U.S. defense planning at the very end of the Cold War, its impact on Soviet decision-making should not be dismissed.[39] It is notable, however, that it took decades after the onset of the Cold War for the Defense Department to adapt itself to the needs of long-term competition. This is a sobering case for those who advocate large-scale reform to consider.

FIGURE 2: DEFENSE



Arms Competition and Arms Control

Arms control represented yet a third set of instruments both for competing in and regulating the arms competition with the Soviet Union during the Cold War. In common with past great power rivalries, the United States and the Soviet Union used arms control to further their interests as well as limit unproductive or undesirable elements of the arms competition.[40]

It is worth thinking about arms control as practiced during the Cold War as having four phases. The first was the perceived need for arms control. At a number of points during the Cold War, the current or perceived future contours of Soviet–American arms competition gave rise to a desire to limit or control that competition, whether it was nuclear testing in the 1950s or the development of anti-ballistic missile (ABM) systems and multiple independently targetable reentry vehicles (MIRVs) in the 1960s and 1970s. The second phase was the negotiation process itself. Arms control talks served as a forum not just for reaching an agreement with the Soviet Union but also gathering information, clarifying intent, and communicating concepts. The third phase was the embodiment of negotiations in a treaty that was subsequently signed and submitted for ratification. The final phase was dominated by the mechanisms of enforcement and debates about compliance, which had their own institutions and organizations

39 John A. Battilega, "Soviet Military Thought and the U.S. Competitive Strategies Initiative," in Mahnken, *Competitive Strategies for the 21st Century*.

40 Thomas G. Mahnken, Joseph A. Maiolo, and David Stevenson, eds., *Arms Races in International Politics from the Nineteenth to the Twenty-First Century* (Oxford: Oxford University Press, 2016).

associated with them, such as the On-Site Inspection Agency that was established to monitor the INF Treaty and various bi-national consultative commissions.

Whereas Cold War arms control efforts were generally institutionalized as negotiated agreements, the first post-Cold War arms control arrangement, George H.W. Bush's 1991 Presidential Nuclear Initiative, involved a set of unilateral, parallel actions that the United States and Russia took in the absence of formal negotiations codified in a treaty. This very different process was only possible given the trust that existed between the two sides in 1991, as opposed to during the Cold War. It is notable that as Russian-American tensions have intensified in recent years Moscow's failure to comply with its undertakings has re-emerged as a point of tension.

Central to the debate over arms control during the Cold War was the question of whether arms control was a tool of competition or could be used to reduce it. Evidence suggests that the Soviets viewed arms control as an instrument of competition to lock in asymmetric advantages that they possessed. The record on the American side is mixed. The Reagan administration looked to the deployment of intermediate-range nuclear forces in Europe as a means to eventually eliminate the entire class of missiles on both sides via negotiation. At other times, however, the U.S. administrations looked to arms control to provide a respite from competition. The Nixon administration clearly looked to arms control to reduce arms expenditures at a time when there was mounting pressure on the U.S. defense budget as well as a mechanism to enmesh the Soviet Union in a web of agreements that would help the United States gain Soviet assistance in extricating itself from Vietnam.

Inherent in this view was the notion that the United States and the Soviet Union were engaged in an action-reaction arms race. As Secretary of Defense Robert McNamara once remarked, "Whatever their intentions or our intentions, actions—or even realistically potential actions—on either side relating to the buildup of nuclear forces necessarily trigger reactions on the other side. It is precisely this action-reaction phenomenon that fuels the arms race."[41]

During the early Cold War, the strategic logic of arms control predominated. That is, arms control was seen as a way of preventing or avoiding some of the most nettlesome problems of the nuclear age, such as surprise attack or strategic instability. Over time, however, the arms control process became institutionalized and perpetuated to the extent that it arguably became divorced from its strategic rationale.

Arms control became institutionalized in the U.S. government in September 1961, when President John F. Kennedy established the Arms Control and Disarmament Agency (ACDA). ACDA's purpose was "formulating, advocating, negotiating, implementing and verifying effective arms control, nonproliferation, and disarmament policies, strategies, and agreements.

41 Cited in Charles L. Glaser, "The Causes and Consequences of Arms Races," *Annual Review of Political Science*, no. 3, 2000, p. 253. See George W. Downs, "Arms Race and War," in R. Jervis et al., *Behavior Society and Nuclear War*, Volume II (New York: Oxford University Press, 1991) pp. 74–105.

In so doing, ACDA ensures that arms control is fully integrated into the development and conduct of United States national security policy."[42] ACDA persisted throughout the Cold War and after. Indeed, it was not until April 1, 1999, a decade after the fall of the Berlin Wall, that it was subsumed into the State Department.

Arms control during the Cold War focused on four areas. First, a series of bilateral and multilateral efforts sought to limit the testing of nuclear weapons, both as a way of mitigating the environmental effects of nuclear tests, but also reducing the pace of nuclear weapons development. For example, in August 1963, the United States, Great Britain, and Soviet Union signed the Limited Nuclear Test Ban Treaty, which prohibited the testing of nuclear weapons in outer space, underwater, or in the atmosphere.

A second set of initiatives sought to limit the size and shape of superpower nuclear arsenals. For example, the Johnson and Nixon administrations pursued a series of bilateral arms control efforts that led to the 1972 Strategic Arms Limitations Treaty (SALT I) and Anti-Ballistic Missile (ABM) Treaty. SALT I established quantitative limits to further production of SLBMs and ICBM launchers and locked in rough quantitative parity with the Soviet Union. The ABM Treaty limited each side's deployment of missile interceptors to two sites each, a number that was reduced in 1974 to one site each.

Negotiations for the next round of arms negotiations, SALT II, stretched on for seven years, from 1972 until 1979, when the negotiating teams were able to conclude a treaty that Jimmy Carter and Leonid Brezhnev signed in June. SALT II limited the total of both nations' nuclear forces to 2,250 delivery vehicles and placed a variety of other restrictions on deployed strategic nuclear forces, including MIRVs. However, opposition to the treaty in the Senate arose almost immediately in reaction both to the treaty's verification provisions but more broadly to Soviet behavior. The Soviet invasion of Afghanistan in December 1979 led Carter to withdraw the treaty from consideration.

The United States and Soviet Union resumed negotiations in 1982 following the inauguration of Ronald Reagan, eventually concluding with the Strategic Arms Reduction Treaty (START) nine years later at the end of the Cold War. The Reagan administration also initiated negotiations to eliminate land-based intermediate-range nuclear forces (INF) in 1982, which culminated in the signing of the INF Treaty in 1987.

A third group of initiatives sought to prevent the spread of nuclear weapons to new powers or domains. The Nuclear Nonproliferation Treaty, concluded in 1968, seeks to prevent the spread of nuclear weapons, promote the peaceful use of nuclear energy, and ultimately to achieve nuclear disarmament. The Outer Space Treaty, concluded in 1967, prohibits the deployment of nuclear weapons in space, while the Seabed Arms Control Treaty, concluded in 1971, bans the emplacement of nuclear weapons on the ocean floor. In addition, a number of

42 "Arms Control and Disarmament Agency," National Archives, available at https://www.federalregister.gov/agencies/arms-control-and-disarmament-agency.

states established nuclear-free zones, to include the 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) and the 1985 South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga).

A final set of negotiations sought to limit conventional arms competition. During the 1970s and 1980s, the United States and Soviet Union held the Mutual and Balanced Force Reductions (MBFR) negotiations that aimed at achieving parity in the level of conventional forces stationed in Europe. The talks gained little of substance until Mikhail Gorbachev announced a unilateral reduction of 500,000 Soviet troops and withdrawal of 50,000 troops and 5,000 tanks from Eastern Europe by 1990.[43]

Conclusion

The Cold War arms control regime is rapidly fading into history. With the U.S. departure from the INF Treaty, the last treaty limiting the size of U.S. and Russian nuclear arsenals is the New START Treaty, which is set to expire in February 2021. The Nuclear Nonproliferation Treaty remains in force, and the Comprehensive Test Ban Treaty, although not ratified by the Senate, nonetheless continues to govern U.S. behavior.

In an era of great power competition in the 21st century, we can expect increased calls for arms control. Some will seek to use arms control as a tool of competition. For example, there have been calls to replace the INF Treaty with a global ban on intermediate-range missiles, a move that would require China to scrap its sizeable force of land-based intermediate-range ballistic and cruise missiles.[44] Others will seek to use arms control to prevent competition in emerging areas, such as hypersonic weapons, autonomous systems, and artificial intelligence.[45]

Arms control can and should be seen as a way to channel aspects of the competition in ways that are favorable to us. However, the Cold War experience demonstrates the potential for unintended consequences with arms control agreements. The United States and Soviet Union entered into the INF Treaty at a time when the state of military technology and verification means equated intermediate-range missiles with the delivery of nuclear weapons. However, the precision strike revolution has allowed militaries to deploy intermediate-range precision conventional weapons. As long as they adhered to the INF Treaty, the United States and Russia were unable to deploy such weapons while states that were not parties to the treaty—China first and foremost—exploited that fact to deploy a sizable arsenal of such weapons.

43 Mahnken, Maiolo, and Stevenson, *Arms Races in International Politics from the Nineteenth to the Twenty-First Century*, part 3.

44 Dinshaw Mistry, "Globalizing the INF Treaty," *The National Interest*, April 28, 2019, available at https://nationalinterest.org/feature/globalizing-inf-treaty-54342.

45 Douglas Barrie, "Unstable at Speed: Hypersonics and Arms Control," *IISS Military Balance Blog*, October 18, 2019, available at https://www.iiss.org/blogs/military-balance/2019/10/hypersonics-arms-control; Arms Control Association, "Addressing the Risks of Lethal Autonomous Weapons Through the Convention on Certain Conventional Weapons," September 7, 2018, available at https://armscontrol.org/pressroom/2018-09/addressing-risks-lethal-autonomous-weapons-through-convention-certain-conventional.

These weapons give the non-treaty parties an asymmetric advantage against U.S. and allied power projection forces and the bases from which they operate.

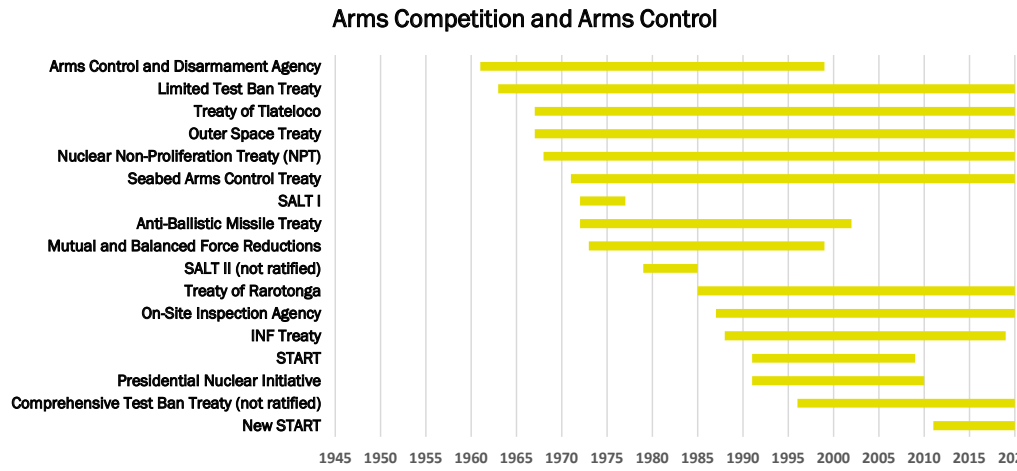
As a general principle, the United States has taken its arms control commitments seriously. The U.S. government has withdrawn from treaties—the ABM Treaty in 2002 and the INF Treaty in 2019—rather than violating or even coming close to violating them. Indeed, at times the U.S. government even shied away from taking actions that the other side might interpret as a violation of the treaty. Authoritarian regimes, by contrast, tend to be less scrupulous in abiding by agreements.

Less certain is whether bilateral arms control has a future. Whereas the nuclear balance throughout the Cold War was centered on the United States and the Soviet Union, today nuclear competition is multipolar. Whereas the total inventory of nuclear warheads has been decreasing for decades, the number of nuclear powers is increasing. Whereas the nuclear arsenals of the United States and Russia have been constrained by bilateral nuclear arms control agreements, those of other nuclear powers have not. Further complicating things is the asymmetry between Russia and China with respect to arms control. Whereas the Russian leadership wants to cling to existing arms control agreements, the Chinese government resists efforts to join arms control negotiations. And although strategic interaction between the United States and the Soviet Union during the Cold War fell far short of the "action-reaction" model developed by international relations theorists, current and future patterns of interaction among nuclear powers will likely be more complex.[46]

It is also unclear whether the technologies that are likely to loom large in conflict in the 21st century are amenable to limitation or elimination in a verifiable way. For example, only a few of the Department of Defense's top ten technologies are amenable to regulation via arms control. Areas such as artificial intelligence, quantum computing, and cyber are inherently dual use, widely spread, and thus not amenable to arms control.

46 See Thomas G. Mahnken et al., *Understanding Strategic Interaction in the Second Nuclear Age* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019).

FIGURE 3: ARMS COMPETITION AND ARMS CONTROL



Science, Technology, and Innovation

Science and technology represented a fourth arena of Cold War competition. Indeed, gaining and maintaining a technological advantage over the Soviet Union was central to U.S. Cold War strategy. The United States sought to promote the development of new technology and spur innovation to bolster the U.S. position relative to the Soviet Union. Technological superiority was a key feature of the American way of war, and exploiting cutting edge technology was seen as vital to promoting the vitality of the U.S. economy.[47] Whereas the Soviet Union appeared to have key advantages in science and technology during the early Cold War, by the war's late stages, U.S. civil and military technological innovation came to demonstrate the vibrancy of the U.S. political system in contrast to that of the Soviet Union.

The Soviet Union's science and innovation base initially threatened U.S. technological superiority during the early Cold War, as manifest in Moscow's ability to field atomic and thermonuclear weapons, intercontinental bombers, and ballistic missiles faster than Western intelligence services had anticipated.[48] Against this backdrop, the United States took a series of steps to harness science and technology for national purposes during the Truman and Eisenhower administrations. The establishment of the National Science Foundation in May 1950 both reflected the experience of World War II and anticipated the needs of the Cold War.[49] World War II witnessed an expansion of government support for scientific endeavors and created relationships among government agencies, universities, and industry. During the

47 Thomas G. Mahnken, *Technology and the American Way of War since 1945* (New York: Columbia University Press, 2008).

48 Laurence Freedman, *United States Intelligence and the Soviet Strategic Threat*, 2nd revised edition (New York: Palgrave Macmillan, 1986).

49 Aaron L. Friedberg, *In the Shadow of the Garrison State: America's Anti-Statism and Cold War Grand Strategy* (Princeton: Princeton University Press, 2000), pp. 307–315.

war, Franklin D. Roosevelt asked Vannevar Bush, Director of the Office of Scientific Research and Development (OSRD), for thoughts on how the successful application of scientific knowledge to wartime problems could be carried over into peacetime. In response, Bush proposed the establishment of the National Science Foundation to perpetuate the relationship between the scientific community and the government.[50]

The Cold War also saw the growth of the national laboratories, university affiliated research centers (UARCs)—these include the Johns Hopkins Applied Physics Laboratory (APL), which grew out of OSRD, and federally funded research and development centers (FFRDCs) such as the RAND Corporation. The Department of Energy laboratories—Los Alamos, Lawrence Livermore, and Sandia in particular—were created to support the development, production, and maintenance of nuclear weapons. Johns Hopkins APL pioneered, among other things, satellite navigation. RAND developed concepts for satellites and intercontinental ballistic missiles, and it helped figure out the political and strategic dynamics of the nuclear age in general.

Government investment in technologies related to defense beginning in the 1950s spurred industrial development in the years that followed. The development of jet engines and rocket motors, to take but two examples, helped spur the commercial aerospace industry in the United States.

The launch of Sputnik on October 4, 1957 led Eisenhower to establish the Advanced Research Projects Agency (ARPA), later the Defense Advanced Research Projects Agency (DARPA), as part of the Supplemental Military Construction Authorization on October 4, 1957.[51] DARPA's mission was "to make pivotal investments in breakthrough technologies for national security." The agency's first three areas of research focused on space technology, ballistic missile defense, and solid propellants. Following the creation of NASA the following year, DARPA's mission was refocused on formulating and executing research and development projects that would expand beyond the immediate and specific requirements of the military services. DARPA sought breakthrough technologies that would yield advantage on the battlefield.

The establishment of the National Air and Space Administration in 1958 was another manifestation of Cold War competition.[52] Indeed, given the overlap in technology between ballistic missiles and space launch vehicles, satellites, and manned and unmanned space exploration, the space race was a dimension of the overall U.S.-Soviet arms competition. Most dramatically, President Kennedy's September 1962 Rice University speech calling on the United States

50 Office of Scientific Research and Development, *Science: The Endless Frontier*, report to the president (Washington, DC: United States Government Printing Office, July 1945), available at https://www.nsf.gov/od/lpa/nsf50/vbush1945.htm.

51 See Annie Jacobsen, *The Pentagon's Brain: An Uncensored History of DARPA, America's Top-Secret Military Research Agency* (New York: Little, Brown and Company, 2015).

52 See Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1986).

to land a man on the moon by the end of the decade served to focus national effort on the Apollo program.[53]

The United States continued to institutionalize the role of science and technology during the 1970s. In 1972, Congress established the Office of Technology Assessment (OTA) to provide Congressional members and committees with objective and authoritative analysis of scientific and technological issues.[54] In 1975, Congress established the Office of Science and Technology Policy (OSTP) within the Executive Office of the President with the mandate of advising the President and others on the effects of science and technology on domestic and international affairs.

Conclusion

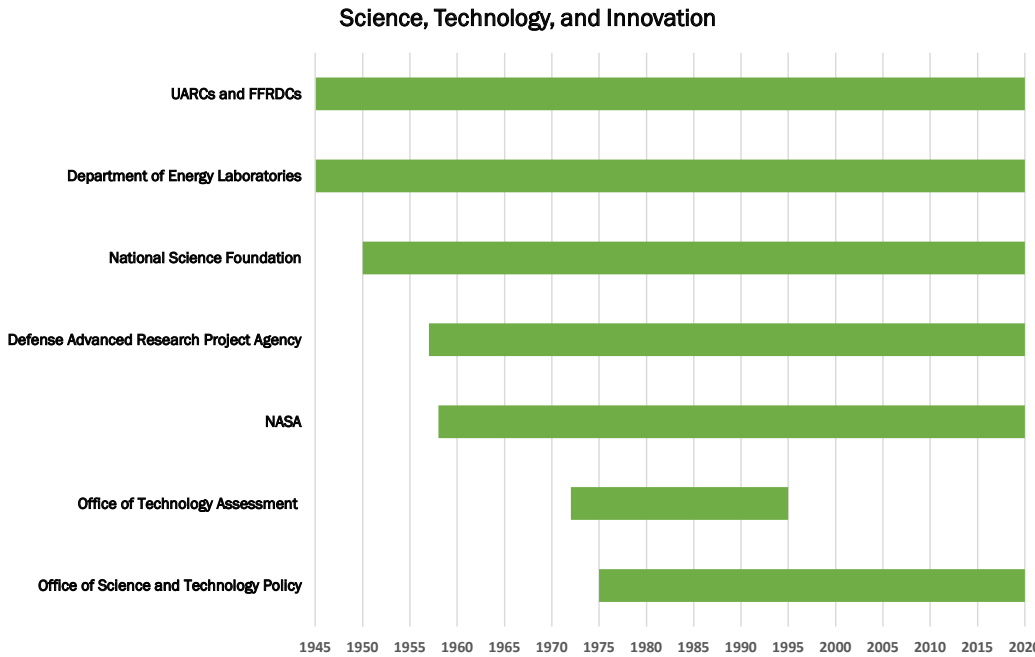
Some of the science and technology institutions founded during the Cold War, such as OTA, have gone away. Many others have shifted their purpose. Whereas the Department of Energy's national laboratories were created to produce nuclear weapons, the end of nuclear testing and policy restrictions on producing new nuclear weapon designs has led them to focus on other areas of technology. A similar shift in focus has affected UARCs. Whereas during the Cold War UARCs pioneered new concepts such as satellite navigation, their work today tends to be much more focused on acting as an independent, trusted agent of government sponsors. And whereas FFRDCs like RAND pioneered concepts for navigating the information age, now much more of their work involves contract research that other organizations could easily perform.

These shifts reflect two deeper changes. First, the locus of innovation has moved from the government to the commercial sector. To take but one prominent example, whereas space exploration was once the exclusive province of governments, today there is a vibrant commercial space sector that is at the forefront of space launch and satellite applications. Second, innovation has become globalized. Whereas every nut and bolt of the Apollo 11 spacecraft was made in the United States, today even cutting-edge technology is part of a global supply chain.

53 John M. Logsdon, *John F. Kennedy and the Race to the Moon* (Basingstoke, UK: Palgrave Macmillan, 2011).

54 See Princeton University's OTA Legacy website, available at https://www.princeton.edu/~ota/.

FIGURE 4: SCIENCE, TECHNOLOGY, AND INNOVATION



Economy

Cold War competition also featured an economic dimension, albeit one that overlapped with defense and science, technology, and innovation. Throughout the Cold War the U.S. government faced the challenge of how to prepare for total war without becoming a garrison state.[55] One set of economic measures was directed toward harnessing the U.S. economy in the service of competition with the Soviet Union, to include improving the defense industrial base and preparing for industrial mobilization. Another set of measures was directed outward as instruments of economic statecraft.

Cold War economic instruments built on the experience of economic warfare during World War II. For example, the Board of Economic Warfare, later the Office of Economic Warfare, supported the Allied war effort through the procurement of strategic resources. Divided into an Office of Imports, an Office of Exports, and an Office of War Analysis, the BEW was responsible for the procurement and production of all imported materials necessary both to the war effort and the civilian economy.[56]

55 For the initial statement of this challenge, see Hanson Baldwin, *The Price of Power* (New York: Harper, 1947), pp. 18–20.

56 For the records of the BEW, see http://www.columbia.edu/cu/lweb/archival/collections/ldpd_4079421/ and https://www.archives.gov/research/holocaust/finding-aid/civilian/rg-169.html.

World War II had forced the United States to mobilize its military and economic resources on a scale never before experienced.[57] The mobilization of the U.S. economy for war began gradually before the United States entered the war in December 1941, accelerated in 1942, and reached its peak production in 1943. The Office of War Mobilization (OWM), created in May 1943 by Executive Order, had broad authority over the wartime U.S. economy. Its purpose was to balance strategy and manpower with sustained high production in support of the war. In October 1944, OWM became the Office of War Mobilization and Reconversion, which was responsible for returning the United States to a peacetime economy.[58]

Based upon the experience of World War II, many strategists during the early Cold War favored a strong industrial planning system.[59] For example, the Strategic and Critical Materials Stockpiling Act of 1946 updated pre-World War II legislation that had established stockpiles of materials critical to defense mobilization.[60] The following year, the National Security Act of 1947 created the National Security Resources Board (NSRB), which was designed to answer the problem of how to prepare the country for total war without surrendering to military domination or undermining the economic liberties associated with a free market system.[61] The NSRB was the brainchild of James Forrestal and Ferdinand Eberstadt, both of whom were convinced that the United States had entered an era of permanent struggle for which it had to be prepared for war on a permanent basis.

The NSRB's central purpose was to advise the President on how to mobilize natural resources, manpower, and the scientific establishment to meet the demands of the Department of Defense.[62] Along with the National Security Council, the board was supposed to be the President's chief source of informed advice on the nation's war capabilities and limitations. Among other things, it developed the assumptions for "each of the many areas of mobilization planning, such as steel, aluminum, copper, petroleum, manpower, transportation, communications, civilian defense, etc."[63] However, the failure of the NSRB to square the demands of mobilization to fight the Korean War with the needs of the civilian economy led President Harry S. Truman instead to declare a national emergency on December 16, 1950.

57 Frank N. Schubert, "Mobilization: The U.S. Army in World War II," U.S. Army Center of Military History brochure, updated October 3, 2003, available at https://history.army.mil/brochures/Mobilization/mobpam.htm.

58 For the records of the OWMR, see https://www.archives.gov/research/guide-fed-records/groups/250.htm

59 Friedberg, *In the Shadow of the Garrison State*, p. 199.

60 Clifton G. Chappell, Roderick Gainer, and Kristin Guss, "Defense National Stockpile Center: America's Stockpile: An Organizational History," n.d., Defense Logistics Agency, available at https://www.dla.mil/Portals/104/Documents/StrategicMaterials/DNSC%20History.pdf.

61 Michael J. Hogan, *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954* (Cambridge: Cambridge University Press, 1998), p. 210.

62 Friedberg, *In the Shadow of the Garrison State*, pp. 208–210.

63 "The Chairman of the National Security Resources Board (Steelman) to the Secretary of State, June 17, 1949," memorandum in *Foreign Relations of the United States, 1949, National Security Affairs, Foreign Economic Policy*, volume I, Office of the Historian, Foreign Service Institute, available at https://history.state.gov/historicaldocuments/frus1949v01/d131.

Using powers granted him by the September 1950 Defense Production Act, Truman created the Office of Defense Mobilization (ODM) within the Executive Office of the President.[64] ODM consisted of the Defense Production Administration, which established production goals and supervised production operations, and the Economic Stabilization Agency, which coordinated and supervised wage and price controls. Over time, 19 mobilization agencies were created within ODM to control every aspect of the American economy.[65]

Industrial mobilization planning turned out to be a bureaucratic dead end. Between 1953 and 1960, the Eisenhower administration dismantled much of the government's industrial mobilization planning.[66] In 1958, the Office of Defense Mobilization merged with the Federal Civil Defense Administration to become the Office of Civil and Defense Mobilization. The office was subsequently shorn of its civil defense planning responsibilities and renamed the Office of Emergency Planning in 1961, then the Office of Emergency Preparedness in October 1968, and then abolished on July 1, 1973.

National security considerations also influenced investments in domestic infrastructure, such as the Federal Aid Highway Act of 1956, which is also known as the National Interstate and Defense Highways Act. The legislation, enacted in June 1956, authorized $25 billion for the construction of 41,000 miles of the Interstate Highway System—at the time the largest public works project in American history. One of the stated purposes of the interstate highway system was to link most U.S. Air Force bases to ease supply.

Conclusion

Defense industrial mobilization played an important role in the early Cold War, but was largely dormant thereafter.[67] Neglect of these considerations has continued since the end of the Cold War, and, to date, little thought has gone into the meaning of industrial mobilization in the 21st century.

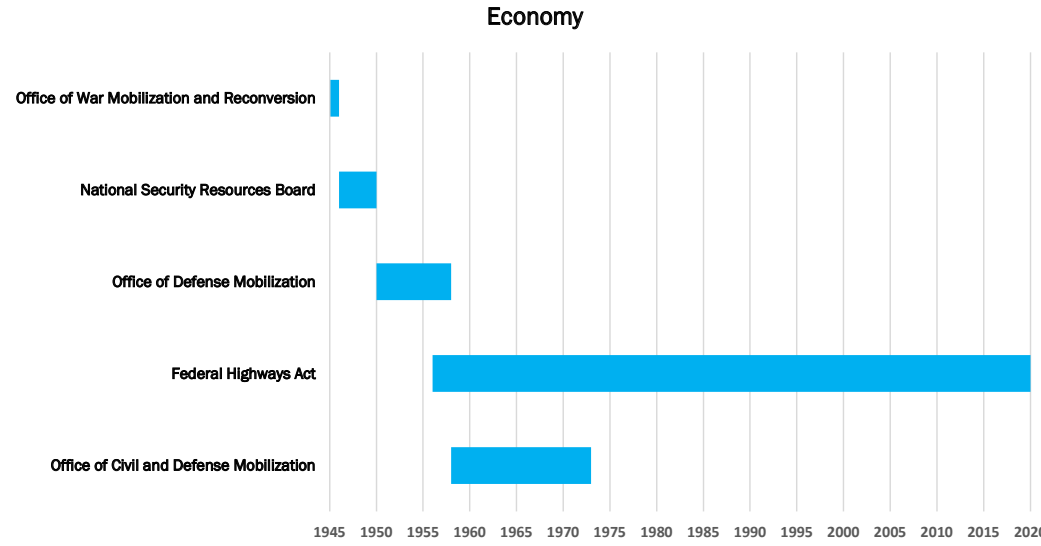
64 Roderick L. Vawter, *Industrial Mobilization: The Relevant History* (Park Forest, IL: University Press of the Pacific, 2002); and see Friedberg, *In the Shadow of the Garrison State*, p. 215.

65 Paul G. Pierpaoli Jr., "Truman's Other War: The Battle for the American Homefront, 1950-1953" *Magazine of History* 14, no. 3, Spring 2000.

66 Friedberg, *In the Shadow of the Garrison State*, pp. 200, 222.

67 The sole late Cold War exception was the Reagan administration's establishment of an Emergency Mobilization Preparedness Board within the NSC staff in 1981.

FIGURE 5: ECONOMY



Political Warfare

Political warfare served as yet another instrument to curb the spread of communism and to weaken its hold within the Soviet sphere of influence. During the early Cold War period, from roughly 1948 until the mid-1960s, the United States became increasingly proficient and aggressive in its conduct of political warfare, using economic, diplomatic, and military tools to counter Soviet ideological influence in Europe and the broader Third World. George Kennan, the first Director of Policy Planning in the U.S. State Department and the architect of U.S. containment strategy, advocated a prominent role for political warfare in U.S. strategy against the Soviet Union. In 1948, he defined the concept as follows:

> Political warfare is the logical application of Clausewitz's doctrine in time of peace. In broadest definition, political warfare is the employment of all the means at a nation's command, short of war, to achieve its national objectives. Such operations are both overt and covert. They range from such overt actions as political alliances, economic measures (as ERP—the Marshall Plan), and "white" propaganda to such covert operations as clandestine support of "friendly" foreign elements, "black" psychological warfare and even encouragement of underground resistance in hostile states.[68]

68 Department of State, "269. Policy Planning Staff Memorandum, May 4, 1948," *Foreign Relations of the United States, 1945–1950, Emergence of the Intelligence Establishment*, Office of the Historian, Foreign Service Institute, available at https://history.state.gov/historicaldocuments/frus1945-50Intel/d269. Brian Michael Jenkins also explains political warfare with reference to Clausewitz, noting that if war is the extension of politics by other means, then "political warfare is the extension of armed conflict by other means." Brian Michael Jenkins, "Strategy: Political Warfare Neglected," *The RAND Blog*, June 26, 2005, available at www.rand.org/blog/2005/06/strategy-political-warfare-neglected.html.

Kennan's definition suggests the broad scope of activities that political warfare can encompass, and U.S. activities during the Truman, Eisenhower, and Kennedy administrations reflected that scope.

The mid-Cold War and détente period from the late 1960s through the 1970s saw the relative ebb in U.S. political warfare efforts. President Reagan, however, revitalized U.S. political warfare during the last decade of the Cold War. National Security Decision Directive (NSDD) 75, the Reagan administration's strategy against the Soviet Union, outlined the forms of political action that would be a key element of U.S. strategy and instructed U.S. policymakers to exploit "the double standards employed by the Soviet Union," including human rights abuses, chemical weapons usage, and the treatment of labor.[69]

The United States used covert action, diplomatic and political aid, and information operations as instruments of political warfare throughout the Cold War. The United States also sought to expose Soviet disinformation efforts and relied upon non-government organizations to support its efforts.

Covert action, to include propaganda, political action, paramilitary activity, and intelligence assistance, was a key element of U.S. political warfare during the Cold War. Eisenhower used the Operations Coordinating Board to carry out political warfare during his administration. The board consisted of the Under Secretary of State, Deputy Secretary of Defense, Director of the Foreign Operations Administration, the Director of Central Intelligence, and the President's Special Assistant for Psychological Warfare, as well as the President's Special Assistant for National Security Affairs and the Director of the United States Information Agency.[70]

The Eisenhower administration oversaw an expansion of the geographic scope of U.S.-Soviet competition to include Southeast Asia and the Middle East, and the administration relied heavily on a range of successful (Iran and Guatemala) and unsuccessful (Indonesia and Cuba) covert operations intended to overthrow governments perceived as pro-Soviet.[71] During this early Cold War period, the CIA was also involved in efforts to assassinate foreign political leaders in Cuba, Congo, the Dominican Republic, and South Vietnam.[72]

69 "National Security Decision Directive 75 on 'U.S. Relations with the USSR,'" the White House, January 17, 1983, p.4, available at https://fas.org/irp/offdocs/nsdd/nsdd-75.pdf.

70 "158. Memorandum from President Eisenhower to the Executive Secretary of the National Security Council (Lay), September 2, 1953," *Foreign Relations of the United States, 1950-1955, The Intelligence Community*, Office of the Historian, Foreign Service Institute, available at https://history.state.gov/historicaldocuments/frus1950-55Intel/d158.

71 John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (New York: Oxford University Press, 2005), p. 156.

72 "Alleged Assassination Plots Involving Foreign Leaders: An Interim Report," Senate Select Committee to Study Governmental Operations with Respect to Intelligence Activities, November 20, 1975, p. 4, available at https://www.cia.gov/library/readingroom/docs/CIA-RDP83-01042R000200090002-0.pdf.

The 1974 Hughes-Ryan Amendment, passed in response to growing public opposition to CIA activities abroad, increased congressional oversight of covert action. For example, the congressional Pike and Church Committee investigations into CIA operations during the 1970s led to President Ford's Executive Order 11905, which banned assassination as a tool of U.S. policy.

U.S. covert actions nonetheless continued in the wake of increased congressional oversight, and operations during the Reagan administration successfully eroded the Soviet sphere of political influence and divided Soviet attention between its many pressing and competing priorities. Covert action in Afghanistan, for instance, helped bleed the Soviet Union of both political will and financial resources for close to a decade at a time when the Soviet economy was floundering and Moscow's grasp on Eastern Europe was becoming increasingly tenuous.

Diplomatic and political aid proved a highly successful tool of U.S. political warfare and remained a mainstay of U.S. policy throughout the Cold War. The U.S. provided aid to non-Communist left-wing political parties in Europe in the years following World War II in order to shore up anti-Communist political parties; that aid help ensure the election of the Italian Christian Democrats over their communist competition during the 1948 elections.[73] Discretely-funded private organizations that supported anti-communist movements, known as "state-private networks," had mixed success at countering Soviet appeal abroad and were vulnerable to popular backlash when their U.S. sponsorship was made known. Later Cold War efforts, like the National Endowment for Democracy, were more transparent and largely more successful.[74] Most famously, U.S. political and financial support to the Polish Solidarity trade union movement in the 1980s supported a more independent Polish government and provided the momentum that led to the Eastern bloc's dissolution.[75]

73 Linda Robinson et al., *Modern Political Warfare*: *Current* Practices *and Possible Responses* (Santa Monica, CA: RAND Corporation, 2018), p. 18, available at https://www.rand.org/content/dam/rand/pubs/research_reports/RR1700/RR1772/RAND_RR1772.pdf.

74 The legislation establishing the National Endowment for Democracy, which was included in the FY84/85 State Department Authorization Act (H.R. 2915), spelled out the following six purposes of the proposed Endowment: encouraging democratic institutions through private sector initiatives; facilitating exchanges between private sector groups (particularly the four proposed Institutes) and democratic groups abroad; promoting nongovernmental participation in democratic training programs; strengthening democratic electoral processes abroad in cooperation with indigenous democratic forces; fostering cooperation between American private sector groups and those abroad "dedicated to the cultural values, institutions, and organizations of democratic pluralism;" and encouraging democratic development consistent with the interests of both the United States and the groups receiving assistance. See https://www.ned.org/about/history/.

75 Seth G. Jones, *A Covert Action: Reagan, the CIA, and the Cold War Struggle for Poland* (New York: W.W. Norton & Company, 2018).

American political warfare efforts also leveraged U.S. cultural influence to engender pro-American sentiment across the Third World. In 1950, for example, the CIA (then the OPC) covertly organized and funded the Congress of Cultural Freedom, which brought together intellectuals from across the West to oppose communism. At its height, the CCF had offices in 35 countries, employed dozens of personnel, and published over 20 prestigious magazines. It held art exhibitions, owned a news and features service, organized high-profile international conferences, and rewarded musicians and artists with prizes and public performances.[76]

More overtly, President Kennedy formed the U.S. Peace Corps in 1961, which sent Americans to Third World countries with the intent to "promote world peace and friendship." The Food for Peace project and Alliance for Progress in Latin America also sought to weaken support for communist movements abroad.[77]

Economic policy also contributed to U.S. political warfare activities. The Marshall Plan, which provided over $13 billion to revitalize the economies of Western Europe in the wake of WWII, was an ambitious and overwhelmingly successful application of economic policy to achieve U.S. strategic objectives, and it helped deter the rise of pro-Soviet movements in Western Europe. The Mutual Defense Assistance Act complicated Soviet efforts to gain a foothold in Western Europe through similar means. Importantly, U.S. policy emphasized the denial of Soviet access to U.S. technology. This became an increasingly powerful tool as the information age developed over the course of the Cold War. Policy under President Reagan in the 1980s emphasized exploiting the United States' asymmetric economic advantage. Efforts to target the economies of Soviet satellite states and the denial of a trans-Siberian gas pipeline contributed extra stress to an already overextended Soviet economy.[78]

U.S. information efforts played a crucial role in U.S. strategic success during later stages of the Cold War and helped dismantle Soviet political alliances both in Europe and the Third World. Rather than spreading disinformation and propaganda, U.S. information efforts focused on public diplomacy, transparency, and exposing Soviet falsehoods and repression. The United States also engaged in "gray" propaganda, which avoided U.S. government attribution but did not aim to disseminate falsehoods.

President Eisenhower established the U.S. Information Agency in 1952 to centralize U.S. public affairs efforts under one bureaucracy, and Matt Armstrong describes the agency's "limited mandate of countering propaganda and sharing liberal concepts of rights,

76 Michael Warner, "Origins of the Congress of Cultural Freedom, 1949-1950," *Studies in Intelligence* 38, no. 5, 1995, available at https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/csi-studies/studies/95unclass.

77 Jeffrey V. Dickey et al., *Russian Political Warfare: Origin, Evolution, and Application*, thesis (Monterey, CA: Naval Postgraduate School, 2015), p. 89.

78 Dickey, *Russian Political Warfare*, p. 118; and see Thomas G. Mahnken, "The Reagan Administration's Strategy Toward the Soviet Union," in Williamson Murray and Richard Hart Sinnreich, eds., *Successful Strategies: Triumphing in War and Peace from Antiquity to the Present* (Cambridge: Cambridge University Press, 2014).

accountability, and governance."[79] The U.S. government also used radio to reach populations abroad directly. Voice of America, Radio Free Europe, Radio Liberty, and Radio Free Asia were all publicly funded State Department and/or U.S. Information Agency efforts to counter pro-Soviet narratives and propaganda and to provide alternative sources of information for populations living in Soviet-aligned states.

The Active Measures Working Group (AMWG), established by President Reagan in 1981, energized government efforts to counter Soviet disinformation and helped establish a growing consensus that Soviet disinformation was a genuine political threat. The interagency working group, which included the CIA, USIA, the U.S. Arms Control and Disarmament Agency, DoD, and the Department of Justice, focused on uncovering Soviet influence operations and exposing them to the American public. By publicizing Soviet disinformation campaigns, the AMWG increased the reputational costs of Soviet disinformation production and ultimately convinced Gorbachev that disinformation was an ineffective method for advancing Soviet objectives.[80]

Not all U.S. political warfare was state-sponsored. U.S. political warfare had the advantage of a network of non-governmental and civil society organizations, all of which contributed to an information environment that favored U.S. objectives. One example is Helsinki Watch, a private American NGO founded to investigate Soviet compliance with the 1975 Helsinki Accords that ensured European states' right to self-determination and political and territorial sovereignty. The group helped raise the profile of human rights and publicized Soviet abuses during the 1980s.[81] The high professional standards of U.S. journalism proved a formidable bulwark against Soviet disinformation efforts, including those to plant false stories and forged documents in the Western press.[82] As former U.S. Supreme Court Justice Louis Brandeis famously noted, "Sunlight is the best of disinfectants." An active domestic and global press, facilitated by U.S. liberal norms, helped expose Soviet ideological hypocrisy, state-sponsored falsehoods, and political repression without the necessity of a government-coordinated campaign.

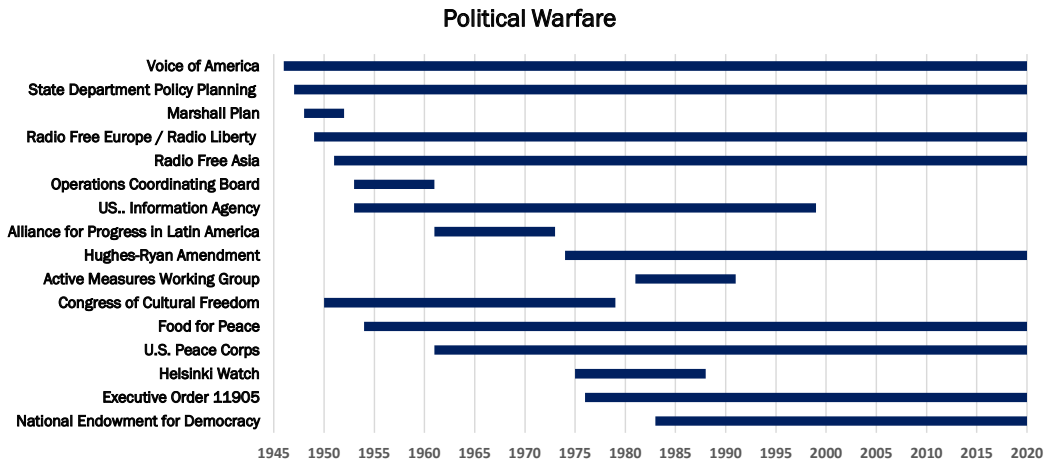
79 Matt Armstrong, "The Politics of Political Warfare and the Need for a Political West Point," in Ofer Fridman, Vitaly Kabernik, and James C. Pearce, eds., *Hybrid Conflicts and Information Warfare: New Labels, Old Politics* (Boulder, CO: Lynne Rienner Publishers, Inc., 2018), p. 9.

80 Fletcher Schoen and Christopher J. Lamb, *Deception, Disinformation and Strategic Communications: How One Interagency Group Made a Major Difference* (Washington, DC: National Defense University Press, June, 2012), p. 3; and Robinson et al., *Modern Political Warfare*.

81 Sarah Snyder, *Human Rights Activism and the End of the Cold War: A Transnational History of the Helsinki Network* (New York: Cambridge University Press, 2011), p. 5.

82 Denis Kux, "Soviet Active Measures and Disinformation: Overview and Assessment," *Parameters* 15, no. 4, p. 26, available at https://www.iwp.edu/docLib/20131120_KuxSovietActiveMeasuresandDisinformation.pdf.

FIGURE 6: POLITICAL WARFARE



Internal Security

A final set of instruments had to do with internal security. Not surprisingly, internal security measures were more controversial than programs that focused on activities outside the United States.

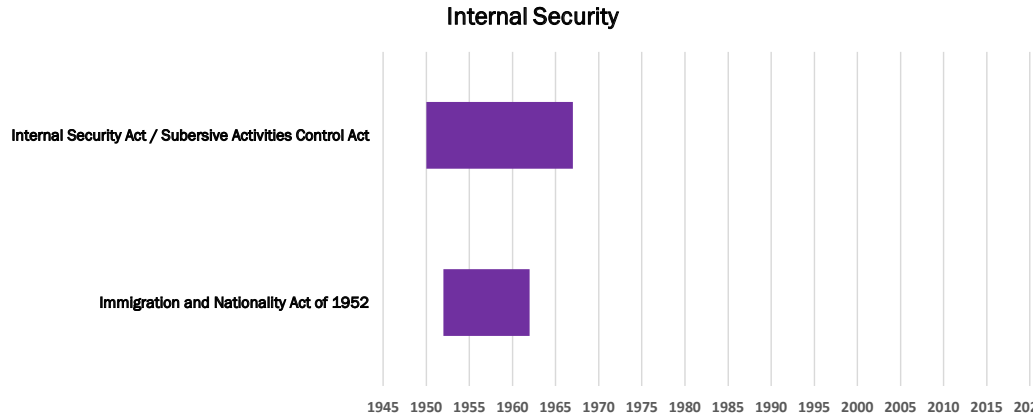
Many of these programs reflected concern about Communist influence in the United States and demonstrated the pressure to roll back civil liberties during periods of heightened competition. A number of these measures reflected a genuine belief in a connection between U.S. leftist organizations and immigrants on the one hand, and Soviet espionage and Communist ideology on the other. For example, the McCarran Internal Security Act of 1950, also known as the Subversive Activities Control Act of 1950, required communist organizations to register with the United States Attorney General and established the Subversive Activities Control Board to investigate individuals suspected of undermining the U.S. government. The Immigration and Nationality Act of 1952 (the McCarran-Walter Act) upheld but modified the system of national origins quotas that had been part of U.S. immigration law since 1924. The act reflected concerns that the United States could face communist infiltration through immigration and unassimilated aliens could threaten American society.[83] Although President Truman opposed both measures, there was enough support in Congress for them to pass over his veto.

Internal security is the only area where almost all of the programs were dismantled after the early phases of the Cold War. One of the lessons of the Cold War experience with internal security is that the alternative to prudent internal security measures is likely to be imprudent measures, which is largely what the United States did during the early Cold War. There

83 "The Immigration and Nationality Act of 1952 (The McCarran-Walter Act)," available at https://history.state.gov/milestones/1945-1952/immigration-act.

actually was a communist conspiracy to subvert the U.S. government, and the Soviets did recruit agents within the U.S. establishment, even if it was smaller and less robust than many imagined at the time.[84] Even at its height, the Communist Party of the USA was tiny. Although there was a legitimate internal security threat, the backlash that U.S. internal security programs generated signaled that they likely went too far.

FIGURE 7: INTERNAL SECURITY



84 John Earl Haynes, Harvey Klehr, and Alexander Vassiliev, *Spies: The Rise and Fall of the KGB in America* (New Haven: Yale University Press, 2010).

CHAPTER 3

Great Power Competition in the 21st Century

The survey of U.S. efforts to compete with the Soviet Union during the Cold War yields several insights that should inform efforts to compete with China and Russia in the 21st century.

First, the range of instruments the United States used to compete with the Soviet Union during the Cold War was quite broad—much broader than feature in most recent discussions of 21st century great power competition. Although it may not make sense to seek to replicate a particular Cold War organization, it does make sense to think about how the United States can develop instruments to compete across the spectrum. Whereas there has recently been some discussion of the role that alliances, political warfare, and economic statecraft are playing in competition with China and Russia, for example, there has been much less debate over the role that arms control, industrial policy, industrial mobilization, and internal security may play.[85]

Second, a review of the history of the Cold War shows that the process of adaptation was protracted. Although many institutions were founded during the Truman and Eisenhower administrations at the outset of the Cold War, many others did not appear until the middle of the Cold War, during the Nixon administration or later. Indeed, some adaptations, such as the Active Measures Working Group and the Competitive Strategies Initiative, emerged only in the final phase of the Cold War.

Third, many of the instruments of great power competition that the United States developed were controversial even during the depths of the Cold War. Domestically, efforts to plan to mobilize the U.S. economy for a protracted war with the Soviet Union, for example, ran

85 The exception that proves the rule is the discussion in Charles W. Boustany Jr. and Aaron L. Friedberg, *Partial Disengagement: A New U.S. Strategy for Economic Competition with China*, Final Report of the Taskforce on Transforming the Economic Dimension of U.S. China Strategy, NBR Special Report #82 (Seattle, WA: National Bureau of Asian Research, November 2019), p. 12.

counter to deeply held anti-statist beliefs, proved difficult to implement, and were short-lived. Similarly, internal security measures targeting communist groups were ill-conceived and also had short lives. Externally, economic warfare measures, such as the Carter administration's grain embargo following the Soviet invasion of Afghanistan, proved controversial. Economic warfare proved difficult for even the Reagan administration to adopt.[86]

Finally, although there is much to be learned from the U.S. experience during the Cold War, many of the underlying conditions have changed in the intervening decades. Whereas government was once the source of much scientific and technological innovation, now the greatest share occurs in private industry. The world economy is now globalized, and there is a much higher level of economic interdependence between all the major economic powers, including China, than there was between the United States and the Soviet Union. Russia and China are deeply embedded in U.S. society and the economy in ways that the Soviets never were.

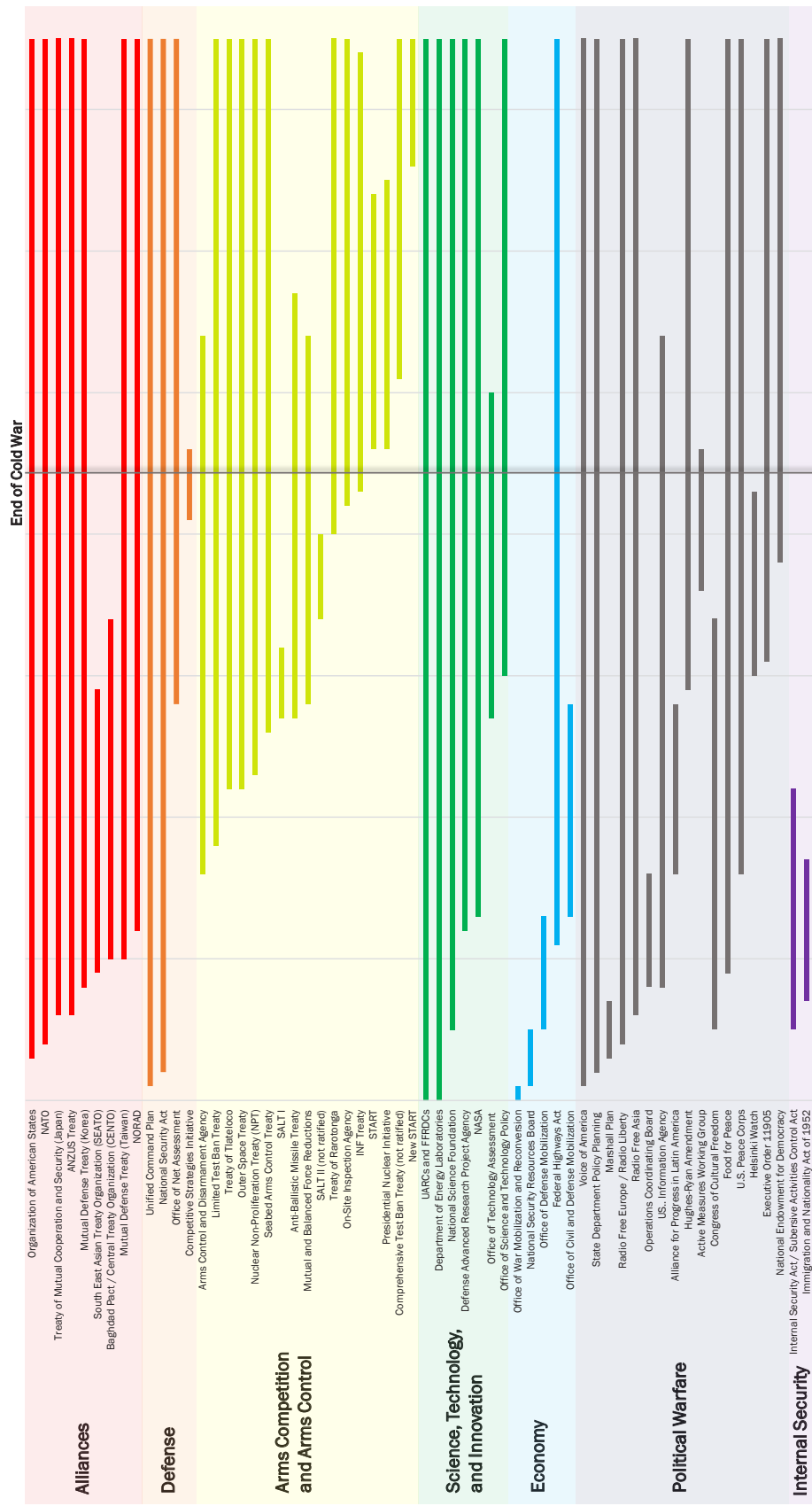
Whereas the Chinese and Russian governments have seen themselves as competing with the United States for the better part of two decades, the U.S. government has woken up late to the reality of 21st century great power competition, and U.S. industry and society are still in the process of doing the same.

One important step is achieving universal acknowledgement that we are in a new era of great power competition. Although the 2017 *National Security Strategy* and 2018 *National Defense Strategy* make that clear for the U.S. government, the understanding has yet to permeate parts of industry and finance, let alone the general public. There are many who reject the reality of competition with China. There are others who, while accepting the fact that China and Russia are competing with the United States, are skeptical about the ability of the U.S. government to formulate and implement a coherent strategy to compete over time. On the other end of the spectrum are those who believe that U.S. strengths, particularly in the U.S. economy and technological innovation, are so powerful that the United States is destined to win any competition.

Public acceptance of great power competition is an important point of divergence between the Cold War and the present day, and it highlights potential limits to the Cold War analogy. During the early Cold War, a series of minor shocks followed by a major one—the Korean War—convinced not just American leaders but the American public at large that the United States had entered a period of great power competition. As a result, for the remainder of the conflict there was not, for the most part, a fundamental debate over whether or not the United States needed to compete with the Soviet Union. Such a consensus on modern great power competition, although potentially emerging, has yet to take hold.

86 For example, the Reagan administration considered, but ultimately rejected, measures aimed at shifting Soviet capital and resources from the defense sector to capital investment and consumer goods and to refrain from assisting the Soviet Union with developing natural resources with which to earn hard currency. See Mahnken, "The Reagan Administration's Strategy Toward the Soviet Union."

APPENDIX A


End of Cold War
1945
1955
1965
1975
1985
1995
2005
2015
Alliances
Organization of American States
NATO
Treaty of Mutual Cooperation and Security (Japan)
ANZUS Treaty
Mutual Defense Treaty (Korea)
South East Asian Treaty Organization (SEATO)
Baghdad Pact / Central Treaty Organization (CENTO)
Mutual Defense Treaty (Taiwan)
NORAD
Defense
Unified Command Plan
National Security Act
Office of Net Assessment
Competitive Strategies Initiative
Arms Control and Disarmament Agency
Limited Test Ban Treaty
Treaty of Tlatelolco
Outer Space Treaty
Nuclear Non-Proliferation Treaty (NPT)
Seabed Arms Control Treaty
SALT I
Anti-Ballistic Missile Treaty
Mutual and Balanced Force Reductions
SALT II (not ratified)
Treaty of Rarotonga
On-Site Inspection Agency
INF Treaty
START
Presidential Nuclear Initiative
Comprehensive Test Ban Treaty (not ratified)
New START
Arms Competition and Arms Control
UARCs and FFRDCs
Department of Energy Laboratories
National Science Foundation
Defense Advanced Research Project Agency
NASA
Office of Technology Assessment
Office of Science and Technology Policy
Science, Technology, and Innovation
Office of War Mobilization and Reconversion
National Security Resources Board
Office of Defense Mobilization
Federal Highways Act
Office of Civil and Defense Mobilization
Economy
Voice of America
State Department Policy Planning
Marshall Plan
Radio Free Europe / Radio Liberty
Radio Free Asia
Operations Coordinating Board
US. Information Agency
Alliance for Progress in Latin America
Hughes-Ryan Amendment
Active Measures Working Group
Congress of Cultural Freedom
Food for Peace
U.S. Peace Corps
Helsinki Watch
Executive Order 11905
National Endowment for Democracy
Political Warfare
Internal Security Act / Subersive Activities Control Act
Immigration and Nationality Act of 1952
Internal Security

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