Foreword

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m T}$ he dropping of nuclear bombs on Hiroshima and Nagasaki ended World War II but ushered in an entirely new form of conflict that came to be called the Cold War. During the Cold War, the United States and the Soviet Union each built up enormous arsenals of nuclear weapons designed to deter the other from launching a conventional military or nuclear attack. At the time, deterrence worked in the sense that the United States and the Soviet Union did not come into direct military conflict with each other. But these vast nuclear arsenals did not deter the Soviets from using conventional military force in Czechoslovakia, Hungary, or Afghanistan. They did not deter the United States from using military force in Korea and Vietnam. And they did not preclude both sides from amassing large conventional forces in Europe.

When the Cold War ended, many hoped that a new era of peace would replace the threat of large-scale nuclear war breaking out at any moment. Many believed that this peace would be accompanied by a significant global reduction in nuclear weapons. Instead, new challenges to world security arose. Regional instabilities led to threats of war between India and Pakistan, on the Korean Peninsula, and in the Mideast. These threats contributed to and were exacerbated by the proliferation of nuclear weapons in these regions. Additionally, catastrophic terrorism arose as a new threat to world security, with large-scale attacks on civilian populations in the United States, Russia, India,

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The occurrence of another global war, while possible, still seems remote. Militarily, the United States is in a class of its own. Today there is no peer competitor for America's military forces. Yet the public debate in Congress and the Pentagon surrounding future U.S. military planning still focuses on the potential conventional military threats emerging from a modernized China or resurgent Russia. China has been making truly impressive and sustained gains in its economy and is devoting a significant portion of its GDP to modernize its military. However, China is far from being a peer military competitor to the United States. Furthermore, war between China and the United States appears unlikely, with leaders from both countries recognizing that a military conflict would be disastrous for both societies. And while Russia has a large nuclear force similar to that of the United States, its conventional forces are substantially less capable than those of the United States.

Since the end of the Cold War, four successive presidential administrations have been unclear as to how the U.S. military should be restructured to respond to this new security environment. Although we cut back our conventional forces by about one-third during the 1990s, we have started to rebuild our ground forces this past decade in response to the ongoing military operations in Iraq and Afghanistan. In particular, we have made substantial increases in our Special Operations Forces capabilities. Our nuclear arsenal has been reduced by 84 percent from its peak during the Cold War, but we still retain 2,150 deployed nuclear warheads, as well as thousands more in reserve or storage. In addition, we retain nuclear weapons

development facilities capable of building new weapons or modernizing old ones. The most recent U.S. Nuclear Posture Review, released in May 2010, states that as long as other nations have nuclear weapons, the United States should ensure the reliability and effectiveness of our deterrent force through a Life Extension Program and a science-based Stockpile Stewardship Program. Meanwhile, both China and Russia are developing new nuclear weapons.

In the first half of the twenty-first century, we face very different security dangers than we did during either the first half of the twentieth century (two world wars fought with massive conventional forces) or the second half (a Cold War characterized by the buildup of enormous nuclear arsenals). Security dangers today must be dealt with at least as much with political, social, and economic strength (soft power) as with military strength (hard power). Our need to exert military power can no longer be met by the large conventional forces used during World War II, or the large nuclear forces accumulated during the Cold War. Today, our armed forces have been reconfiguring to meet these new demands, but many more changes are required. We must continue to downsize our conventional forces and at the same time reconfigure them to be more agile. Our ground troops need to focus on further developing expeditionary forces that can be moved quickly to distant locations and do not need established military bases nearby to conduct operations. Our air forces should focus on strengthening their long-range strike and unmanned capabilities. Our naval forces should continue to focus on their mission of establishing sea control that can be projected worldwide on relatively short notice. Also, all our military services must become more proficient in operating in an

environment of cyber-threats to military technologies.

While the U.S. military will never go back to the large conventional forces required during World War II, or the large nuclear forces amassed during the Cold War, its operations will continue to be stretched worldwide, and it will have to deal with emerging unconventional threats such as insurgents, terrorists, and pirates. At the same time, it will have to maintain effective command and control in the face of potential cyberattacks.

These developments will take place while profound technological changes are occurring in society. Some of these changes can be used against us (cyberattacks on our military command and control, or on our civil infrastructure). However, they can also be used to our advantage, as was the case during the socalled Revolution in Military Affairs (RMA), which led to quantum leaps in the effectiveness of technology used to detect enemy targets, avoid detection of U.S. warplanes by enemy radars through use of stealth technology, and provide more accurate readings of location through the development of Global Positioning System (GPS) technology. This RMA gave the U.S. military a major advantage over other militaries, as was demonstrated convincingly in Operation Desert Storm at the beginning of 1991. Unfortunately, these technologies have not been effective in dealing with urban insurgencies or global terrorism, and other technologies have not yet been developed to give our military a compelling advantage against these threats. In the meantime, an entirely new application of technology - social networking – is having a profound effect on political developments throughout the world, and could affect global military developments as well.

The American military has, since William J. World War II, depended on U.S. industry Perry for building most of its weapons, including those developed during the RMA. This has worked very well because our country's most advanced technologies are created in the private sector. But as the need for weapons fluctuates, and in particular, as future needs remain uncertain, it is difficult to maintain a stable defense industry. And as military specifications and procurement regulations continue to diverge from those in the commercial sector, more and more military procurement will rely on companies dedicated solely to military work.

During the wars in Iraq and Afghanistan, our military complicated this military-industry collaboration by heavily relying on private security personnel from defense contractors deployed in the battle space to conduct operational tasks usually reserved for members of the armed forces. With these private security contractors operating outside the traditional command structure of the military, their use resulted in significant command and discipline problems. As a result, the U.S. military in the future will need to exercise tighter control over what operational functions can be performed by contractor personnel.

Another kind of technology, medical technology, has had a profound effect on preventing battlefield casualties. Our wounded soldiers in Iraq and Afghanistan have had far better medical treatment than in any other war, resulting in a high percentage of soldiers surviving wounds that would have been fatal in earlier wars. However, the presence of advanced weapons on the battlefield has also resulted in a much higher number of veterans with long-term disabilities, including Post-Traumatic Stress Disorder. The need for more and better treatment facilities has never been greater.

Foreword Besides the profound changes to the international threat environment and advances in military technology, there have been equally profound changes in the political, economic, and social environments within the United States over the last century. Politically, the American people and their Congress are not as directly engaged with the U.S. military as they were during World War II or the Cold War. Today, less than 1 percent of American families have a family member in active military service; only 22 percent of U.S. Senators and congressional representatives have ever served in the military. Our military force is composed entirely of volunteers, which has many real benefits, especially in the training and discipline of the force. But it also has one great liability: the American people and their elected representatives are more detached from their military than at any time this past century. As our body politic makes decisions about how to use its military force, these decisions should be made with the understanding that the people whose lives are being risked are the sons and daughters of their constituents (or their own sons and daughters). There is a potential danger that our allvolunteer force could eventually be seen by Congress as a "mercenary" force.

> Congress, under Article 1, Section 8 of the U.S. Constitution, is granted the authority "[t]o raise and support Armies... To provide and maintain a Navy. To make Rules for the Government and Regulation of the land and naval Forces." Over time, Congress has manifested this responsibility by passing laws that set specific standards for civilian control of the military, for civil-military interfaces, and for establishing a military structure that enables effective joint-service operations. The Goldwater-Nichols Act of 1986, which restructured civil-military relations in the Pentagon and put into place a cul

ture of "jointness" between the military services, has been a successful example of military legislation, and lawmakers are currently considering new legislation to bring the act up to date.

Along with these external and domestic political changes, our military is shaped by the evolution of society and our educational systems. These changes affect the capabilities and attitudes of recruits for the all-volunteer force. Declining quality of K-12 education will result in declining quality of potential recruits at a time when the technological demands on military personnel are only getting higher and more complex. This in turn will increase the need for the military services to do their own training, possibly including remedial training to compensate for inadequacies of the K-12 education system. Society is also becoming more accepting of gender and racial differences, and these changes will be reflected in today's military services. The military for many decades has been open to all races. Women are now accepted in all services and with increasing responsibilities. Congress recently amended the law to allow gays to serve openly. All these changes will bring the face of the military to look more like the face of America.

Finally, America's economic power has strongly influenced its military strength. U.S. government spending on the military forces has increased over time, paralleling our economic growth. As a result, we have by far the largest military budget in the world; in fact, ours is about equal to the rest of the world's combined military budgets in real terms. But we are also the only nation that takes on global responsibilities for security. Our nuclear umbrella over many allied countries allows them to remain non-nuclear, which is a benefit to world security, including our own. Our naval and air forces in the Pacific have contributed to peace in that

historically troubled part of the world, to the benefit of East Asian countries and our trade with them.

The present economic difficulties facing the United States will generate strong pressures to decrease defense spending. Military and civilian leaders will increasingly be pressed to answer the question, how much spending is enough to meet the requirement? That question could be answered by returning to our historical estimate of appropriate defense spending based on a percentage of GDP. For the last sixty years, our defense budget has been about 3 to 6 percent of our GDP, excluding defense spending during the years of the Korean and Vietnam Wars when it reached a high of 11 percent. Alternatively, defense spending can be measured by an assessment of the threat we face, but that is a highly subjective measurement that can be endlessly debated. But the wind-down of military operations in Iraq and Afghanistan may still create an opportunity to decrease military spending without compromising U.S. national security or interests.

The world has been changing in important ways since the end of the Cold War, and new and dangerous threats are emerging every day. But, against all odds, the world has not had a nuclear bomb used in anger since World War II; there has not been, nor is there likely to be, a World War III; and the average standard of living worldwide has increased since the end of the Cold War. The U.S. military has played an important role in these positive results and will be called upon to play that positive role in the future. In order to do so, the U.S. military has to adapt to economic, political, technological, and social changes as well as evolve to meet the changing global threat environment.