

Section I

Adapting to Eight Global Challenges



Secretary of Defense Robert M. Gates (right) and British Defence Secretary John Hutton talk during the non-NATO International Security Assistance Force meeting in Krakow, Poland, February 2009.

Over the coming decade and beyond, world leaders will face enormously complex global security challenges. A mixture of enduring and emerging threats and challenges will mean that policymakers are increasingly operating in terra incognita. The United States and other states will have to adapt to eight broad trends driving the future security environment:

- a global redistribution of economic power from the West to the “Rest”
- the partial emergence of a multipolar world
- an information revolution that leaves modern societies vulnerable
- the acceleration of an energy and environmental security tipping point
- the mounting challenges emanating from many fragile states and ungoverned spaces
- the increasingly transnational dimensions of terrorism
- the changing character of conflict from conventional to irregular and hybrid warfare
- the potential further spread of nuclear and biological weapons.

First, a global redistribution of economic power is under way. The subprime mortgage crisis, the

Wall Street meltdown, the temporary freezing of credit markets, and the reverberations around global markets are all reminders that economic power is the bedrock of sustainable military and political power. Much of the past 500 years of history has been dominated by the rise of the West, including the Industrial Revolution. More recently, however, economic power has shifted increasingly to “the Rest,” especially Asia. Nations that had spent decades on the periphery of the global economic and trading system, including China, are now critical production centers. Capital is flowing out of emerging nations and into the developed world and is being used to recapitalize the rich nations’ founding banking systems. Even while the Group of 7 or 8 is being enlarged if not overtaken by an emerging Group of 20, there are also roughly a billion people in some 60 countries, mainly but not exclusively in sub-Saharan Africa, who are being left behind.

Second, it is fashionable to point to the declining influence of the United States over the past decade and in the decades ahead. The world is no longer bipolar, as it was during the Cold War’s East-West divide, although concerns about the durability of major power peace are far from dormant. It is not unipolar, with the United States a sole superpower convincing other powers to coalesce around Washington’s agenda. But it is also not truly multipolar,



Traders deal in crude oil futures pit at New York Mercantile Exchange



Head of Zimbabwe’s Movement for Democratic Change announces launch of fund to help displaced victims of political violence

with political power residing in the hands of several world capitals attempting to preserve global order. Many of the emerging or resurgent powers—including China, Russia, India, and Brazil—either lack the desire to assume the mantle of global management or do not enjoy a seat at the international high table. Meanwhile, there are increasingly global and transnational challenges—from nuclear proliferation and climate change to terrorism and global poverty—that make national security interdependent with global security. In short, the post-World War II international security system is in transition, with the key question being, “Toward what?”

secret for longer than it takes to establish a cell phone connection. But modern information technology and Internet systems are increasingly vulnerable to cyber attack, and new complexities make cyber attack both increasingly possible and hard to trace.

Fourth, the emerging energy system is far more complex and global than the industrial-era system that it is slowly replacing. Today, when security planners talk about energy security, they are as likely to be referring to carbon emissions and diminishing water supplies as energy self-reliance and affordable oil. Moreover, the energy and environmental security problems that are emerging are increasingly beyond the ability of any single country to control. Significant increases in the price of oil have weakened the global economy, contributed to a sharp rise in global food prices, and transferred trillions of dollars to autocratic oil-exporting regimes. Energy diplomacy has become increasingly confrontational as states jockey for control of gas and oil markets and pipelines. Meanwhile, concerns about pollution and greenhouse gases have strained diplomatic relations with other nations and are forcing fundamental changes in energy policy. Water is another critical resource. China has more than 22 percent of the world's population and only 8 percent of the world's fresh water; water shortages are causing rising food prices and migration. In India, urban water demand is expected to double and industrial demand to triple by 2025. And in the Middle East, between 1985 and 2005, the overall per capita fresh water availability was cut in half and was expected to be cut in half again well before 2025.



AP Images (Michael Euler)

Members of Internet Corporation for Assigned Names and Numbers, the key Internet oversight agency, relaxed rules to permit new domain names

A third global trend centers on the information revolution and technology. Modern network technologies are shifting power to the edge, allowing decentralized networked groups to compete with hierarchical structures. The globalization of communications and computing infrastructure is allowing nonstate groups—including terrorists, criminal organizations, antiglobalization movements, pernicious hackers, and others—to directly threaten national security and international stability. Three trends in this information revolution are particularly relevant to strategic concerns: ubiquitous connectivity, transparency, and cyber warfare. In 2008, the number of people owning a cell phone exceeded the number of people who did not. It was only a few years ago when half of the world had never heard a dial tone. Ubiquitous and instantaneous communications are also increasing global transparency; it is not clear how anything on the future urban battlefield can be kept



AP Images (Renato Chalú)

Brazilian police guard raft loaded with logs illegally cut during government's fight against deforestation in the Amazon

Fifth, since 9/11, fragile states and ungoverned spaces have risen in stature as a serious challenge to security. Everywhere, it seems, the nation-state is under siege: from below by aggrieved national groups pressing upward; from above by international bodies and global advocacy groups; and from the side by global society's empowered private actors, both licit



UN (Robert Sullivan)

United Nations personnel help displaced persons return to homes in Pristina, Kosovo

and illicit. There is no easy answer to state weakness and no surefire way to build effective states. Oversimplification of cause-and-effect relationships between weak states as a group and the universe of “spillover” threats often attributed to them forms a poor basis for public policy decisionmaking. Even so, fragile states may aid and abet a host of other problems, from piracy in the Gulf of Aden and Strait of Malacca, to trafficking in illegal commodities, to incubating terrorism and pandemics. Indeed, a nation-state's capacity to govern effectively faces no stiffer test than its ability to manage infectious diseases crises. Pandemics require unprecedented multiagency communication, expertise, and collaboration at the state, regional, and international levels, all of which are crucial for containment of the disease and mitigation of its consequences. A growing need to address state weakness seems a likely bet for the next half-century.

A sixth trend relates to transnational movements and terrorism. National and international security now involves nonstate actors to an extent unprecedented in modern history. Transnational movements and substate actors have tremendous power both to contribute to the greater good and to bring about violence. The most prominent such

threat arises from transnational Salafi jihadism, of which al Qaeda is the standard bearer. Al Qaeda and likeminded groups boast as members only a fraction of 1 percent of the 91 million Muslims who could have potentially celebrated the events of September 11, 2001. While familiarity with al Qaeda tends to breed contempt, there remains a great concern about terrorists acquiring and using weapons of mass destruction (WMD). Successful responses to and prevention of this emerging threat will probably have to be designed as an all-of-society or whole-of-government approach. Ironically, our greatest strength—military power—has become our greatest liability because extensive use of military power can help to mobilize Muslims to become Salafi jihadists. Our most important partners are Muslims, and we will have to continue to find ways to support ongoing Muslim efforts to marginalize the Salafi jihadist ideology across the Islamic world while taking prudent actions to inhibit catastrophic terrorism.

AP Images (Manmohan Singh)



Pigeons scatter as Taj Hotel burns during terror attacks in Mumbai, India, November 2008

Seventh, the character of war is changing. The most complex challenges of the future could involve synergies from the simultaneous application of multiple modes of war. The most capable opponents may seek to pursue what has been called hybrid warfare—the combination of conventional, irregular, and catastrophic forms of warfare. We have certainly seen a recent revival of irregular warfare, and not only in Iraq and Afghanistan. For instance, during the 34-day-long war in southern Lebanon in 2006, Hizballah demonstrated the ability of a non-state actor to discern the vulnerabilities of Western-style militaries by mixing an organized political



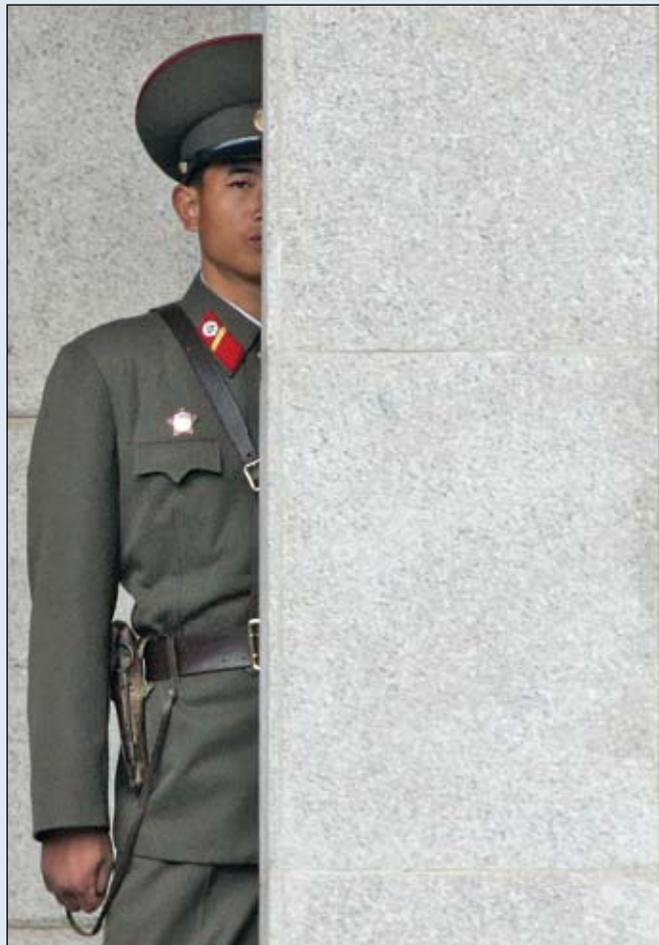
U.S. Navy (Christopher Menzies)

U.S. Navy SEAL trainee in close quarters combat exercise at Naval Special Warfare Center, Campo, California

movement with decentralized cells employing adaptive tactics in zones outside the local government's control. Hizballah, like the jihadist defenders in the battles of Fallujah, Iraq, during April and November of 2004, skillfully exploited the urban terrain to create ambushes, evade detection, and hold strong defensive fortifications in close proximity to non-combatants. But this does not mean that traditional forces are irrelevant—far from it. Beyond the resurgence of ground forces with respect to wars such as those in Iraq and Afghanistan, trends suggest that the importance of seapower in relation to the global economy is growing. Similarly, it can be argued that airpower's ability to contribute to the course and outcome of combat operations at the higher end of the conflict spectrum is also expanding. Meanwhile, at the lower end of the conflict spectrum, complex operations and humanitarian problems have been constant companions of military operations in the past two decades, and this trend is likely to continue in the coming decades, requiring new blends of military and civilian forces acting together.

An eighth trend shaping tomorrow's security environment is WMD proliferation. Our worst fears regarding the proliferation and use of nuclear weapons have not been realized to date, but important developments have made it increasingly possible that nuclear or biological weapons may be used in the next half-century. The absence of catastrophic WMD use is the most positive trend of recent years, and everything should be done to preserve it. As disruptive and costly as the 2001 anthrax letters incident proved, only 5 people are known to have died and 22 to have sustained injury. North Korea became the

first state ever to withdraw from the Nuclear Non-proliferation Treaty regime, and the path ahead for denuclearizing the Korean Peninsula remains long and treacherous. Iran's continued highly enriched uranium program has made it a virtual threshold nuclear power, and it is believed to be capable of building a nuclear weapon within the next several years should it so choose. We can prevent a second nuclear age, and perhaps an expansion of a costly proliferation of military platforms in space, but it will take considerable effort. In the meantime, and more ominously, we still do not fully understand how the rapid advances in biological and chemical science and technology will change the landscape for biological and chemical weapons. The nature of life sciences is such that even a few individuals could inflict untold damage if armed with the right unconventional weapon. [gsa](#)



AP Images (Ahn Young-joon)

North Korean soldier monitors South Korean side of border at Panmunjom