Princeton Project on National Security
Relative Threat Assessment Working Group
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As part of the Princeton Project on National Security, the Relative Threat Assessment Working Group is charged with the central task of studying a broad conception of threats and the setting of threat priorities. This paper reviews some prior threat assessments and provides one basis for the Working Group's deliberations. Which threats does each consider? Why are these threats believed to be important? And what threats are not addressed? For now, we leave aside the questions of what constitutes a threat, how threats should be prioritized and what appropriate responses to threats may exist.

We examine nine different reports, which fall broadly into two categories. First, we examine four assessments that purport to cover the full range of threats to the United States—what we will call "comprehensive assessments." These studies include:

(1) The 2001 *U.S. Commission on National Security* ("Hart-Rudman Commission")
(2) The 2002 *National Security Strategy* (NSS)
(3) The 2004 *United Nations High-Level Panel on Threats, Challenges, and Change* ("UN High Level Panel")
(4) The 2004 National Intelligence Council 2020 Project, *Mapping the Global Future* ("NIC report")

Most of these reports tend to concentrate on strategy and policy recommendations, and include recommendations for organizational reform. Our intention in reviewing them, however, is to describe the underlying threat assessment and to analyze the methods used to arrive at such assessments.

These studies vary widely in their definition of "national security." Some adopt a broad notion of security that includes the economic well-being of the global population and the protection of human rights worldwide. Others remain more focused on classical conceptions of security (and mostly U.S. national security) which emphasize interstate relations and direct threats to territory. Nonetheless, it is striking that each of these reports has embraced a relatively expansive notion of security; this contrasts sharply with threat assessments in the previous two decades, when, in the midst of the Cold War, the focus of threat assessment remained exclusively in the realm of interstate relations.

In addition to these comprehensive assessments, we also review five studies that have examined specific security risks—what we call "targeted assessments." These studies are:

(5) The 2001 *Quadrennial Defense Review* (QDR)
(6) The 2002 *National Strategy for Homeland Security* (NSHS)
(7) The 2004 *Report of the National Commission on Terrorist Attacks Upon the U.S.* ("9/11 Commission")
(8) The 2004 *National Commission on Energy Policy* ("Hewlett Commission")
(9) The 2004 Carnegie Endowment for International Peace, *Universal Compliance: A Strategy for Nuclear Security* ("Carnegie report")

I. Comprehensive Assessments

(1) *New World Coming: American Security in the 21st Century* (Phase I Report), U.S. Commission on National Security in the 21st Century, September 15, 1999.

Web site: http://govinfo.library.unt.edu/nssg/

The Hart-Rudman Commission was established in 1999 by the Secretary of Defense, complete with federal funding and the mandate to provide practical recommendations for the organization of post-Cold War U.S. national security policy. The fourteen-member commission produced reports in three phases. Phase I examined how the world would likely evolve in the coming 25 years. Phase II articulated a grand national security strategy, and Phase III focused on organizational and budgetary recommendations. Our review is of Phase I, which forms the basis for the Commission's threat assessment.

Findings

The Commission observed that with the end of the Cold War, Americans had become complacent about security risks. It warned of a terrorist attack on the U.S. homeland using advanced technology weapons of mass destruction, such as bioengineered pathogens, thereby "predicting" a terrorist attack on the homeland. This warning of a homeland attack is what makes the assessment famous today—viewed, as it is, through the lens of the September 11 attacks.

The Commission embraced a concept of security that is broader than classical military security. Indeed, the Commission argued that the normal distinctions between "international" and "domestic" affairs had become increasingly muddied. The root of this vision lay in the Commission's view of the changing nature of economic activity. Advances in information and biological technologies, along with the ever-tighter integration of economies into a world trading system, had accelerated the spread of destructive capabilities. On the classic question of whether "offense" or "defense" had the advantage, the Commission tipped the advantage to offensive capabilities. New technologies would draw the world together but would also create a new balance of power that favored small technologically-savvy actors who had the ambition to cause harm.

The Commission gave particular attention to changing notions of sovereignty, arising as borders become more porous and develops in one country increasingly impact on others. While the state would remain the principle actor of international political organization, there would be growing pressure not to regard as untouchable the sovereign internal affairs of other nations. The Commission argued that the fragmentation and failure of some states will create ripple effects that could destabilize whole regions and, in turn, affect American security. Moreover, failures of governance that often cause and accompany such crises can give rise to atrocities, such as the deliberate terrorizing of civilian populations, that create political and moral pressure for intervention.

Even as the demand for American military and humanitarian intervention is set to rise, the Commission argued that several factors will make successful interventions more difficult to sustain (pg. 127). Uncertain alliances will make it hard to operate overseas, and the U.S. seems likely to have fewer capabilities to fund forward-deployed forces. The Commission also wrote that even a well-organized U.S. intelligence system would encounter many likely surprises because adversaries are becoming more challenging and the range of behavior that must be observed and anticipated has diffused widely. Early warning and response will therefore be more difficult.
Finally, the Commission underscored that the traditional concerns about energy security are likely to remain for the coming period, with the result that American interventions will be drawn especially to

threats that affect regions of energy supply, such as Iraq and the greater Middle East. And the Commission also stated that space, which for now has been a relatively placid arena, will become a critical and competitive military environment (pg. 53).

Methodology

To arrive at this assessment, the Commission pursued a systematic and structured assessment of threats. First, it identified a set of broad "global dynamics" (pg. 5) rooted in science and technology, economics, society and politics, and military-security affairs. It articulated each of these dynamics separately and then combined them in a vision—a scenario the Commission labeled "a world astir" (pg. 58)—that offered their view of the world system over the next 25 years.

The Commission's articulation of a world astir rests heavily on its assumption of continued economic integration, which leads to wider disparities in wealth and greater awareness of those differences. Technological and economic forces pull at the "mythic fabric that links society to the state," making it harder to govern. At the same time, proliferation of capabilities will make it easier for the aggrieved to cause harm. While the Commission gave great attention to a wide array of attributes, such as the graying of populations in some regions (particularly Europe), notably absent from their analysis is radical Islam and other extreme religious forces. The assessment is a reminder of how quickly the center of gravity in threat assessment can change by events. In the whole of the Commission's Phase I report (i.e., its threat assessment), Osama bin Laden is not mentioned once. The longest discussion of Islam is its potential as an agent for progressive change; Islamic neo-orthodoxy (a variant of Islam rooted in piety) gets more attention than militant Islam.

The Commission offered a briefer analysis of patterns in U.S. domestic society, because they will affect how Americans view threats and, crucially, their ability to respond. This part of the Commission's work is less systematic and relies on broad (and probably not controversial) observations that America is likely to remain the most powerful nation and will be bound to the rest of the world through a web of cultural, economic and technological interconnections. The Commission highlighted a variety of internal threats, like poor education prior to the university level. Weaving together a series of such observations the Commission identified a potentially major danger in the erosion of social cohesion and trust, especially among the young—fragmenting factors that could make America less able to mobilize as a nation. It bolstered the conclusion by observing the willingness to serve in government and the military is strikingly low today as compared with a generation earlier and is poised to decline even further in the future.

Finally, the thinnest part of the report may actually be the most important. In a short section, the Commission identified four scenarios that reflected what it called "clusters of likelihood" (pg. 131). These four clusters led to alternative visions for the future:

- A democratic peace;
- Protection and nationalism;
- Globalization triumphant;
- Division and mayhem.

The Commission did not assign probabilities to these outcomes; it did not articulate fully why these four occupied their attention, and nor did it examine the factors that might explain which world would be realized. Rather, the scenarios were presented to "stimulate our imagination" (pg. 136). They did suggest, in passing, that the democratic peace was a likely outcome for the countries where democracy has firm roots. They concluded that "the world is divided more or less between a zone of democratic peace and a zone of chronic trouble."

(2) *The National Security Strategy of the United States of America*, September 17, 2002.

Web site: http://www.whitehouse.gov/nsc/nss.html

The National Security Strategy (NSS) of 2002 was issued by the White House in accordance with the Goldwater-Nichols Department of Defense Reorganization Act of 1986, which mandated periodic reports to Congress detailing the U.S. security strategy. It is intended to provide a broad overview of the pressing national security concerns and how the administration proposes to address them.

Findings

The 2002 NSS focuses on achieving a series of three security-oriented goals: "political and economic freedom, peaceful relations with other states and respect for human dignity." (pg. 1) To accomplish these goals, the Administration proposes eight major approaches: championing aspirations for human dignity, strengthening alliances to defeat global terrorism, working with others to diffuse regional conflict, igniting a new era of global economic growth, expanding development by building democracies, developing agendas for cooperation with other global powers and transforming American security institutions. The explicit discussion of threats is somewhat limited to national security, and in many cases, threats are addressed only in general terms (for example, in the discussion of human dignity, (pgs. 3-4) there is no connection made *per se* to threats to the U.S.)

There are five instances in which the NSS directly analyzes threats to the U.S. These are:

(1) *Consequences of regional conflicts*: The NSS offers a brief overview of global regional conflicts, and generally offers only indirect reasons why these conflicts might present threats to the U.S. The Israeli-Palestinian conflict is critical "because of that region's importance to other global priorities of the United States" (pg. 9). Latin American conflicts and "unrestrained narcotics trafficking could imperil the health and security of the United States" (pg. 10). African "disease, war and desperate poverty…threaten(s)…our strategic priority—combating global terror" (pg. 10).

(2) *Weapons of mass destruction and terrorism*: The NSS pinpoints the rise of rogue states (namely, Iraq and North Korea) in the 1990s as the start of a new era of security threats—particularly, the increase in a global trade of WMD. The strategy to combat WMD includes deterrence, defense, supply-side prevention and dissuasion (pg. 14). On the very next page, however, the NSS notes that "relying on a reactive posture" is no longer possible because of "the inability to deter a potential attacker" (pg. 15). The NSS then presents the doctrine of "preemptive," (pgs. 15-16) or more accurately, preventive, action. Thus, the utility of deterrence is a major conflict within the NSS, and something we discuss more below in the *Methodology* section.

(3) *Global economic growth*: The NSS notes that a strong global economy is beneficial to the U.S. in that it increases freedom and prosperity in the rest of the world. Strong economic growth in Europe and Japan is seen as "vital" to U.S. national security (pg. 18). As part of the strategy to promote free trade, the NSS denotes that energy security should be enhanced (pg. 19) and greenhouse gasses should be stabilized to prevent dangerous human interference with the environment (pg. 20).

(4) *Development*: Here, threats to world health and economic growth are loosely linked to poverty, disease, education and development (pgs. 21-23).

(5) *Great power competition*: The NSS looks specifically at competition between the U.S. and Russia, India and China. In terms of the threats that these states present to the U.S., Russia is understood to have a "dubious record in combating weapons of mass destruction" (pg. 27), while India is believed

to have common strategic interests with the U.S., despite differences over the development of India's nuclear program. China, on the other hand, is viewed through an adversarial lens—it is "pursuing advanced military capabilities that can threaten its neighbors" (pg. 27).

(6) *Transforming U.S. security institutions*: Dissuasion and deterrence are vital strategic pillars of military strength (pg. 29), but they may fail (pg. 30).

We noted important tensions in the NSS itself, particularly when dealing with the issue of dissuasion and deterrence. Throughout, the importance of deterrence was emphasized, but so too was the seeming futility of deterrence in the face of certain opponents. The final section on security institutions (pgs. 29-31) offered the most measured tone on this issue, both recognizing deterrence as a goal, but also acknowledging that deterrence as a policy will at times be ineffective.

Finally, some threats were briefly implied with no further discussion. Environmental hazards are barely mentioned, though there is the implication that global warming is a latent threat to the U.S. economic growth. Development was also implicitly viewed to be cause of national security or health-related threats. It is important to note that the NSS views Latin American drug trafficking as the most explicit threat to the health of Americans—much more so than, for example, the threat that infectious disease may pose. Disease was analyzed as a threat mostly in the discussion of China—a result, perhaps of the start of the SARS scare at the end of 2002 and the U.S. frustration with China's ability to contain and to manage the disease.

Methodology

There is no self-conscious discussion of the methodology of the NSS. In general, is unclear whether the report was prepared through an interagency process, or of it was entirely conceived within the White House. Also, how and why the particular eight approaches for accomplishing the national security goals were chosen is left unexplored.

(3) *A More Secure World: Our Shared Responsibility*, Report of the United Nations High-Level Panel on Threats, Challenges, and Change, 2004.

Web site: http://www.un.org/secureworld/

The Report of the United Nations High-Level Panel on Threats, Challenges, and Change (UN Panel) is the result of a year-long project of sixteen panelists, charged by the Secretary General with a three-pronged task: to assess current threats to international security, to evaluate how well the existing institutions respond to those threats and to recommend ways that the UN can be strengthened to provide collective security in the future (pg. vii). Indeed, "collective security" may be seen as the central focus of the report, and the panel may in effect have been constrained from the outset to find collective security solutions to whatever problems it might discover.

The UN Panel report is divided into four main parts: *Part (1)* is a theoretical section which makes the case for what an effective collective security system must look like, *Part (2)* reviews the various threats that the international system currently faces, *Part (3)* focuses on the use of force and *Part (4)* suggests reforms for the structure of the UN. Because our purpose is to review threat assessments, our focus will mainly be on *Part (2): Collective Security and the Challenge of Prevention*.

Findings

The UN Panel identifies five general types of threats to international security:

(1) Poverty, disease and environmental degradation: Poverty, when combined with inequality, are seen to cause civil violence and instability. Polio, AIDS and tuberculosis are identified as among the most devastating diseases. The panel notes that "rarely are environmental concerns factored into security" although the destructive potential of natural disasters has increased in the last fifty years. (pg. 26)

(2) Conflict between and within states: "Unresolved regional disputes" in South Asia, Northeast Asia and the Middle East threaten international peace and security. Extremism, which may have profound effects in the future, has been fueled by the instability in Iraq and Palestine (pg. 31). In terms of civil war, the UN Panel notes some successes in the UN's role in negotiation, but recognizes major failures in creating peace agreements in Angola, Rwanda and Afghanistan, as well as failing to stop genocide in Rwanda, Bosnia and Kosovo (pg. 34).

(3) Nuclear, biological, chemical and radiological weapons: The panel identifies two types of threats from nuclear proliferation. The first is that current signatories to the Nonproliferation Treaty (NPT) will develop nuclear weapons programs, either illicitly or by adhering to the letter, but not the spirit, of the NPT. The other concern is that the entire NPT will collapse in the future—the UN Panel argues that the NPT today is not as effective a constraint as it was in the past (pg. 39).

   Radiological weapons, on the other hand, are understood to be "weapons of mass disruption" since the most harmful effects of a dirty bomb would be economic damage. The Panel predicts that because of the sheer number of readily available radiological materials and the minimal technical expertise needed to create a dirty bomb, such an attack is highly likely in the future (pg. 40).

   Finally, chemical and biological weapons are also believed to be a growing threat. The Chemical Weapons Convention has so far been ineffective in implementing the destruction of the declared weapons agents. And potential biological weapons like "designer bugs," ricin and infectious diseases could produce enormous casualties (the Panel estimates up to 1 million, under some worst case assumptions) and many have no known antidote or treatment (pg. 41).

(4) Terrorism: The Panel see terrorism as a serious threat because of two new dynamics. First, the rise of non-state global terrorist networks, like al Qaeda, pose a universal threat to members of the UN. Second, the Panel foresees that terrorists will continue to cause mass casualties in the future (pgs. 47-48).

(5) Transnational organized crime: The final threat is that of organized crime. The Panel maintains that drug trafficking in particular has serious security implications, due to its connection to the spread of AIDS, its relationship with financing terrorism, and the threat it may pose to economic development and the rule of law.

Methodology

The UN Panel's report, which is extremely comprehensive in its threat assessment, was the result of a year-long project to address the Secretary-General's request for an assessment of threats to international security. The Panel, which consisted of sixteen people from around the world, held a series of international workshops and meetings—some of which were topical, others regional—between January and September of 2004. The Panel staff then produced white papers, which were distilled down into the 130 page final report. There is no clearly articulated methodology for how the threats were chosen and analyzed.

The UN Panel is careful not to prioritize threats, and particularly those threats that the world's wealthiest nations consider the most important, suggesting that in a collective security system "we all share responsibility for each other's security" (pg. 10). The Panel, committed to the motto "a threat to one is a threat to all," (back cover) is loath to classify any one threat as particularly urgent or pressing. The result is that the report, while reviewing an impressive array of threats, is unclear about which threats present the most serious risk, and to whom.

(4) "Mapping the Global Future," National Intelligence Council's 2020 Project, December 2004.

Web site: http://www.cia.gov/nic/NIC_2020_project.html

"Mapping the Global Future" is the third, and most recent unclassified report produced by the National Intelligence Council (NIC) of the CIA in the last seven years. The series of three reports is intended to identify potential international developments that U.S. policy-makers should consider as they construct strategies to guide future policies and programs. The project was not designed to focus exclusively on direct security threats; in consultation with a broad array of both governmental and nongovernmental experts, the 2020 Project provides a broad perspective on what be expected in the future. A series of workshops were held in which alternative scenarios for the next 15 years were developed and explored by assembled academics and others.

"Mapping the Global Future" differs in at least one major respect from the NIC assessments in that the authors explicitly chose to de-emphasize the salience of American power. Therefore, "Mapping the Global Future" does not feature American might as the principal driver of future events, nor does it take the effect of events on U.S. power as the most important measure of merit.

Findings

The report describes, with varying degrees of certainty, elements of the global landscape in 2020. While the landscape features a wide range of possibilities, several are especially important for evaluating future risks. These include globalization, the benefits of which will not be evenly experienced; the growing power of non-state actors; the continued potency of political Islam; the improved WMD capabilities of some states; political instability in the Middle East, Asia and Africa and the declining possibility of great power conflict.

To provide a more vivid understanding of what the future might bring, the 2020 Project set out four scenarios of the year 2020. These were not meant as forecasts, say the authors, "but they describe possible worlds upon whose threshold we may be entering, depending on how trends interweave and play out." (pg. 16) The four scenarios, chosen by the authors from a range of options, are not meant to be mutually exclusive. They include:

1. Davos World – Robust economic growth led by China and India

2. Pax Americana – U.S. predominance survives and serves to create a new global order

3. A New Caliphate – Radical religious identity politics constitutes a challenge to Western norms

4. Cycle of Fear – Concerns about proliferation lead to large-scale intrusive security measures taken to prevent outbreaks of deadly attacks, possibly introducing an Orwellian world

On the military front, the report's implications are harder to identify, except for the obvious concerns with proliferation of chemical, biological, and nuclear weapons. One more subtle example is that with its growing dependence on oil from the Persian Gulf, China might become concerned that the U.S. Navy could interdict oil shipments destined for China—and thus constitute a deterrent of sorts to Chinese activities in the Taiwan Straits. This illustrates, perhaps, more a threat assessment by China than by the U.S., except for the implication that the U.S. should prepare for a growing Chinese naval presence worldwide.

Methodology

The NIC's 2020 project brought together twenty-five experts on a variety of topics and including three "futurists," or experts who attempt systematically to gauge future trends. To develop the four scenarios, the NIC organized six international workshops to harvest ideas for "key drivers," or underlying forces that may lead to change, that are likely to be regionally powerful. The NIC 2020 Project then analyzed the regional key drivers and identified important cross-regional themes. Ultimately, the 2020 Project used these drivers to develop the four illustrative scenarios.

Although the "drivers" are not explicitly reviewed in "Mapping the Global Future," the reports from the regional workshops on the 2020 Web site detail the drivers in each geographic area, and looked at those that might have a global effect as well as those that are more regional in scope. In the Middle East workshop, for example, the report outlines "oil, the Israel-Palestine conflict, and the uncertain future ... Of Iraq ... may all be considered global drivers" (page 2 of "Middle East Workshop Summary," http://www.cia.gov/nic). Regional drivers differed region to region, but were roughly similar. For example, the principal drivers for Eurasia were economics and natural resources, demography and health, social and ethnic identity and science, technology, and the military. For the Middle East, the drivers were natural resources, population demographics, governance and social identity.

The NIC 2020 Project is particularly valuable in that it makes the policy community aware of probable or possible developments, and provides some guideline about how to begin affecting these future outcomes now. By identifying the importance of radical Islam, "Mapping the Global Future" suggests that the U.S. ponder how to affect ideology in the Islamic world (pg. 13). By identifying the expected emergence of a billion new educated workers from China, India, and other developing countries into the global workforce over the next 15 years, the report alerts folks engaged in trade policy and so on (pg. 28).

II. TARGETED ASSESSMENTS

(5) *The Quadrennial Defense Review Report*, Department of Defense, September 30, 2001.

Web site: www.defenselink.mil/pubs/qdr2001.pdf

Every four years since 1993, the Department of Defense has undertaken an overview of expected threats and the attendant defense requirements in what is known as the *Quadrennial Defense Review* (QDR). The 1993 QDR (also called the "Bottom-Up Review") focused on Iraq, North Korea and former Soviet Union as the scenes of most concern, and developed the concept that U.S. forces should be ready to fight two major simultaneous regional wars; the Clinton Administration was concerned, in particular, about fighting simultaneous wars in Korea and the Middle East. In the 1997 QDR, Iraq and North Korea figured most prominently as the threats to national security.

Findings

The 2001 QDR presents an important shift from a threat-based defense strategy to a "capabilities-based" approach. The QDR defines the capabilities-based model as "one that focuses more on how an adversary might fight than who the adversary might be and where a war might occur." (pg. 14) The new approach necessitates identifying capabilities that the U.S. military will need to "deter and defeat," particularly those employed by opponents who engage in asymmetric warfare. The military must be prepared to react across a far wider spectrum of threats, both "functional and geographical" (pg. 17).

The 2001 QDR, most of which was written before the September 11 attacks, is notable because the concept of asymmetric warfare is seriously considered for the first time. In the 2001 QDR, the military strategy of fighting major conflicts in two theatres was revised, and in its placed is the so-called "1-4-2-1" strategy—though in the QDR, it is never explicitly labeled this way. According to a recent *Washington Post* article on the QDR, the "1" signifies maintaining enough forces to protect the U.S. homeland, the "4" means the United States needs to be prepared to conduct smaller-scale peacetime operations in as many as four areas, and the "2-1" is a variation on the previous two-theatres model—it requires U.S. forces to "swiftly defeat" aggression in overlapping major conflicts while preserving the option to achieve "decisive victory" in one through regime change or occupation. (Bradley Graham, "Pentagon Prepares to Rethink Focus on Conventional Warfare: New Emphasis on Insurgencies and Terrorism Is Planned," *Washington Post*, January 26, 2005.)

The 2001 QDR identifies a series of two major sets of trends that will give rise to threats in the future. These threat-trends include:

(1) Geopolitical Trends: The post-Cold War world is far more fluid than it was during the Cold War. As technology, travel and trade increase, the U.S. will enjoy less protection from its geographic distance from its enemies (pg. 3). Regional powers may develop sufficient capabilities to present serious threats to U.S. interests, particularly in Asia, the Middle East, and to a lesser extent, the Balkans (pg. 4). Weak and failing states present an increasing threat, especially through drug trafficking and terrorism (pg. 5). Non-state actors, and the rapid proliferation of chemical, biological, radiological and nuclear weapons present the danger that terrorists might employ these weapons (pg. 5). Sustaining regional security arrangements and the increasing diversity in the sources and locations of conflicts are the final two geopolitical trends.

(2) Key Military-Technical Trends: The rapid advancement of military technology has provided enemies of the U.S. with enhanced capabilities, while also potentially conferring advantages on the U.S. military (pg. 6). The proliferation of chemical, biological, radiological and nuclear weapons—and especially the development of ballistic missile proliferation—has grown at a faster rate than expected (pgs. 6-7) Finally, the emergence of new military arenas and the related increasing potential for miscalculation and surprise are the last two challenges.

A still more nuanced description of the challenges and threats presented in the QDR can be gleaned from the discussion of "transformation initiatives" (pgs. 41-46). Though the transformation initiatives are intended to set out strategic development goals for the military, they also reveal perceived vulnerabilities and threats, which the U.S. must be prepared to counter. Some of these are: ballistic and cruise missiles directed at U.S. territory and allies, forces abroad and at sea and in space; biological and chemical attacks on U.S. military forces (pg. 42); attacks on information systems (pg. 43); attacks on U.S. forces as they approach conflict areas or hold at risk critical ports; the growing threat posed by submarines, air defense, cruise missiles and mines (pg. 43); the threat from enemies in sanctuaries like remote terrain, hidden bunkers or those using "civilian shields" (pg. 44) ; challenges to the continued U.S. ability to access and utilize space for military operations, intelligence

gathering and communication (pg. 45); and finally, threats to the military's ability to transmit information over secure, jam-resistant datalinks (pg. 45).

A Word on the 2005 QDR

Planning for the 2005 QDR is currently underway and the new QDR itself will soon be launched. Those developing the new QDR characterize it as differing from earlier reviews in a several important ways. The upcoming QDR will reportedly put less emphasis on conventional warfare, while focusing more on dealing with insurgencies, terrorist networks, failed states and other nontraditional threats. Whereas older QDRs primarily focused on scenarios where DOD would have the predominant responsibility, as noted in the chart below, the new report will also identify threats where other U.S. agencies could have a significant or even predominant role, with DOD in a more subordinate or supporting role.

At present, those writing the new QDR have designed a matrix featuring four different realms of challenges or threats. The following is from a talk that Ryan Henry, the principal deputy of the Undersecretary of Defense for Policy, gave at the Heritage Foundation on February 3, 2005, and is available at http://www.heritage.org/Press/Events/

Irregular *DOD with State and other agencies* -Low-level conflicts -Post-conflict, anti-insurgency -Funding and educational materials in hands of the military could be more important than weapons	**Catastrophic** *DHS as lead agency, but DOD can assist in securing seas and skies, etc.* -Use of WMD against homeland or other countries, state or non-state actors Ballistic missile attack on U.S.
Traditional *DOD as lead agency* -Previous focus of QDR -Conventional war -Reacting to the collapse of a nuclear-armed state -In the past, requirement to fight two regional wars simultaneously	**Disruptive** *DOD and other agencies* -Emerging technologies could cause trouble -Cyber attacks, attacks on the electrical grid, and other such attacks

Methodology

There is no explicit discussion of methodology in the QDR. Additionally, although it is obvious that DOD played the main role in formulating the QDR, the extent to which other agencies were solicited is also unclear.

(6) *The National Strategy for Homeland Security*, Office of Homeland Security, July 2002.

Web site: http://www.whitehouse.gov/homeland/book/

The stated purpose of the *National Strategy for Homeland Security* (NSHS) is "to mobilize and organize our Nation to secure the U.S. homeland from terrorist attacks" (pg. 1). The threats considered in the NSHS, therefore, are only those presented by terrorists to the U.S. homeland. The *National Strategy for Homeland Security* differs from the *National Security Strategy* in that it directly addresses one very unique and specific threat: terrorism inside the United States.

Findings

The NSHS outlines a strategy to improve homeland security through the cooperation of public organizations—including federal, state and local agencies—and the private sector. The NSHS divides the most important homeland security functions into six "critical mission areas" that include (1) intelligence and warning, (2) border and transportation security, (3) domestic counterterrorism, (4) protecting critical infrastructures and key assets, (5) defending against catastrophic threats, and (6) emergency preparedness and response. The NSHS specifically identifies 43 initiatives across the six mission areas.

In terms of threats to homeland security, the NSHS outlines four "means of attack" or major categories of terrorist threats:

(1) Weapons of mass destruction: Terrorists may steal WMD of all sorts from states with such capabilities; indeed, several state sponsors of terrorism are developing WMD and could supply either materials or support to terrorists who wish to use them. Chemical weapons, and even sophisticated nerve agents, are within the grasp of terrorists. Biological weapons, an attack with which may not be immediately obvious, can spread infectious diseases to humans, livestock and crops, causing both casualties and economic damage. Radiological weapons, in the form of a dirty bomb present another threat. In the case of nuclear weapons, which the NSHS implies is unlikely, there are two major challenges to terrorists—the amount of fissile material required and the technical expertise needed to assemble even a simple nuclear device.

(2) Conventional means: Traditional methods of violence and destructions, such as knives, guns, bombs, hostage-taking and spreading propaganda will continue to be employed.

(3) Cyber attacks: Attacks on electronic and computer systems, which are expected to become increasingly significant, can have severe consequences for critical infrastructure like energy, financial and securities networks.

(4) New tactics: American society presents an enormously wide range of targets.

While there is little attempt in the NSHS to prioritize between these various threats, the report argues that securing the homeland is "among the highest, if not the highest, priority any government can have" and is "more important than just about every other government activity" (pg. 67).

The report also mentions instances of security vulnerabilities that also involve the efforts of other nations. Port and airport security (pg. 34), in particular, spotlights the fact that effective homeland security policies must involve other countries.

Methodology

There is no explicit discussion of methodology in the NSHS. The introductory letter states only that the strategy took more than eight months to create and is the result of consulting with "thousands of people," including state, local and federal employees, citizens, business and political leaders, the media and the military, and victims of terrorist attacks.[1]

(7) *The 9/11 Commission Report,* Report of the National Commission on Terrorist Attacks Upon the United States, July 22, 2004.

Web site: http://www.9-11commission.gov/

The 9/11 Commission Report is the result of the bipartisan and independent commission created by Congress in 2002. The Commission was tasked with creating a complete account of the September 11, 2001 terrorist attacks, including preparedness for and the immediate response to the attacks, as well as providing recommendations to prevent attacks in the future. The 9/11 Commission is fundamentally different from the other reports we review in this paper—it was designed to explain a single event *ex-post*. In that sense, it is not a threat assessment *per se*, but rather a retrospective explication of how and why the U.S. government failed in the case of the September 11 attacks.

Findings

With the caveats about the purpose of the 9/11 Commission report in mind, we identified three major risks associated with radical Islam, the threat of most concern in the Commission's study.

1. Ideology of Wahhabism: The Sunni fundamentalist interpretation of Islam, which gained prominence in Saudi Arabia in the 1980s, is believed to have greatly influenced the rise of Islamic terrorism. (pg. 52)

2. Failed and Weakened States: The Commission pinpoints several such states, including Sudan, Egypt, Afghanistan and Saudi Arabia, as encouraging and, in some cases, funding terrorist activity.

3. Vulnerability of the U.S.: Finally, the Commission documents in painstaking detail the vulnerabilities of the U.S. itself—both in detecting and responding to the September 11 attacks.

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[1] A recent Government Accountability Office (GAO) report entitled *Homeland Security: Agency Plans, Implementation, and Challenges Related to the National Strategy for Homeland Security* critiques the implementation of the NSHS. (http://www.gao.gov/cgi-bin/getrpt?GAO-05-33)

The GAO reviewed the strategy's implementation to (1) determine whether its initiatives are being addressed by key departments' strategic planning, (2) identify ongoing homeland security challenges that have been reflected in GAO products since September 11, 2001. Very briefly, the GAO found that while key departments have, in fact, begun to implement many of the initiatives in the NSHS, there remain "significant challenges" in fully implementing the NSHS. Particularly difficulty was foreseen in the parts of the strategy that are spread over critical mission areas and across agencies, like balancing homeland security funding needs with other national requirements, providing timely and transparent budget information, improving risk management methods for resource allocation and investments, developing adequate homeland security performance measures, developing a national enterprise architecture for homeland security, and improving government-wide information technology management. (pgs. 122-128)

It is noteworthy that the intelligence community conducted the main previous study of the terrorist threat in 1995, with a smaller effort in 1997. Additionally, in contrast to the myriad efforts of defense and intelligence experts to ensure strategic warning of traditional military attacks and to devise protocols to respond to different levels of threats, evidently nothing similar existed for terrorist threats. Finally, of the Commission's 41 recommendations, only one focuses on the use of force.

Methodology

The 9/11 report is an investigation, not an exercise in imagination about threats in the future. Its lasting value is that it serves to remind policymakers of the errors that were committed in the past, and provides suggestions about how these might be mended in the future. Because of its unique purpose, the commission relied on the assessment of experts and its staff to reconstruct the historical record. The commission also held a series of twelve public hearings in New York, New Jersey and Washington, D.C.

(8) *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges*, The National Commission on Energy Policy, December 2004.

Web site: http://www.energycommission.org/

The National Commission on Energy Policy, funded by the William and Flora Hewlett Foundation, set out in 2001 to create a series of "politically viable and technically feasible" energy policy recommendation for the future. Like most studies that aim to influence policy, the Hewlett Commission report focuses on recommendations for action rather than an explication and analysis of the underlying threats. Nonetheless, the report is built on a clearly articulated body of threats to U.S. security—both its physical security and the economic well-being of the American economy—rooted in the American energy system.

Findings

The Commission gave particular attention to insecurities in American oil supply. Because oil prices are set on a world market, Americans are exposed to global fluctuations that may affect oil prices. These include unexpectedly high demand, as has occurred in recent years in China, and in the United States, as automobile efficiency has stagnated. Other global fluctuations include unexpected shocks in supply—such as in the aftermath of strikes in Venezuela and Nigeria, and from persistent delays in returning Iraq's production to pre-war levels. Mindful of this core concern, the Commission's first goal is to improve U.S. oil security (pg. 1) through policies that would boost production and diversify the worldwide sources of supply to the global oil market. It also strongly advocates tempering demand for oil, most notably through stronger mandatory rules on the efficiency of cars and light trucks. The Commission also recommends a large pool of tax incentives to encourage the purchase of ultra-efficient automobiles such as hybrids and advanced diesel vehicles (pg. 11).

The Commission wrote that, as with oil, the rising price of natural gas is creating similar challenges to the American economy. To address concerns about natural gas, the Commission advocated policies to boost efficiency as well as the production of natural gas. It recommended subsidies to encourage the construction of a pipeline that would bring gas to the lower 48 states from Alaska. And it argued for enhancement of the infrastructure needed for importing liquefied natural gas (LNG) (pg. 46).

Environmental degradation linked to the energy system was also seen as a threat to the U.S. The Commission noted a wide array of environmental dangers, but it focused on global warming caused

by the accumulation of carbon dioxide released during the combustion of fossil fuels. The Commission argued for a carbon-emissions cap and a trade system for the U.S. with a so-called "safety valve," and it suggested that by selling a small fraction of the carbon dioxide emission credits that would be issued to control these emissions, sufficient revenue could be generated to pay for the cost of the Commissions' other proposals, such as a boost in energy-related RD&D and tax incentives to encourage greater efficiency (pg. 8).

The Commission also gave considerable attention to energy-related links to terrorism (pg. 88). It noted that threats to national security arise when the rents from energy projects overseas accrue into the hands of groups that are hostile to the United States—an additional reason, the Commission implied, to pursue policies that would lower the price of oil and also reduce the needed imports of oil.

Another area of special concern was terrorist threats to energy facilities. The Commission noted, as others have, that some energy facilities—such as nuclear plants and LNG facilities—are attractive terrorist targets. But the Commission gave greater attention to potential targets of the larger energy infrastructure—such as pipelines, power plants, and transmission lines—that are extremely "soft" and largely unprotected targets. It noted that there is a resonance between the task of building a more robust energy infrastructure—which is essential for supplying reliable and high quality energy services that are essential to a vibrant modern economy—and also hardening that system against terrorist attack.

The bulk of the policy recommendations focus on ways to increase energy supplies in the U.S. and to boost energy efficiency. To a lesser degree, the Commission discussed policies that would allow society to mitigate and to adapt to security threats through, for example, the construction of more adaptive "self-healing" power grids that could be less vulnerable to terrorist attack.

Methodology

The Commission was not explicit about the methodology that it adopted for identifying threats. It appears that the Commission's assessment is rooted principally in the deliberations of the 16 Commissioners and their expert staff in the early stages of the three-year year project.

The Commission notes at the outset that they employed some general criteria in choosing between policy recommendations, including economic efficiency, cost-effectiveness, ability to incentivize behavior, flexibility for adjustment in the future, equity, political viability and the ease of implementation (pg. viii). Additionally, the policy recommendations, taken together, are "revenue-neutral"—that is, adopted as a package, the policies pay for themselves.

The Commission seems to have identified four central threats to American economic (and, to a lesser degree, physical) security: 1) volatility in oil prices, 2) environmental degradation, 3) terrorist attack on energy facilities, and 4) the danger of under-investment in an adequate energy system. All four of these items were already amply part of the general discussion of energy experts—a similar listing of dangers arises, for example, in reports four years earlier issued by the Council on Foreign Relations and by Vice President Cheney's task force on energy policy. The one significant difference is the much greater attention given to terrorist dangers in the National Commission report. Whereas the CFR and Cheney reports gave considerable attention to the dangers linked to imported oil and to inadequate investment in energy infrastructures, on both topics the National Commission reinforced these dangers by emphasizing their linkage to terrorist attack.

The Commission's threat assessment may have been aided by technical reports prepared by consultants, Commission members, and the Commission's own staff. Of the 79 staff reports

prepared, two examine the threats to the U.S. from imported oil (political and economic), one partly examines terrorist risks in siting infrastructure, one partly examines terrorist threats to imported LNG, one examines the potential impacts of climate change and another surveys the options for adapting to climate change. The vast majority of the Commission's analytical attention, however, was focused on policy options, not primal threats.

(9) "Universal Compliance: A Strategy for Nuclear Security," George Perkovich, Joseph Cirincione, Rose Gottemoeller, Jon Wolfsthal, and Jessica Mathews
The Carnegie Endowment for International Peace, June 2004.

Web site: http://www.ceip.org/files/publications/ComplianceReport.asp

"Universal Compliance" is a recent report from the Carnegie Endowment for International peace that offers an outline of a new international nonproliferation strategy. It closely examines one very serious threat—that of nuclear proliferation—and offers guidance on how to create universal compliance for states, both nuclear and non-nuclear, and for non-state actors.

Findings

The report is divided into two main parts: the first examines the rules of the new nuclear security regime and the second analyzes the elements of an enforceable system by looking more closely at strengthening enforcement, blocking the supply and abating the demand for nuclear materials. The report is very focused and is mainly directed at presenting the Carnegie Endowment's blueprint for a reformed non-proliferation regime.

The single overall threat that the report engages is nuclear proliferation. And within this rubric, the report sets out a clear prioritization of concerns (pg. 26):

(1) Nuclear terrorism and transfers: The greatest single threat to the U.S is terrorist acquisition of nuclear weapons or materials. Diversions from civilian programs and from inadequately-secured stocks of weapons or nuclear explosive materials in the former Soviet Union, Pakistan and elsewhere, and the nuclear black market presents another threat. Finally, a collapse of government controls over nuclear arsenals in Pakistan or North Korea also present a serious threat. (pg. 26)

(2) Regional proliferation and conflict: The possibility of North Korea and/or Iran as new nuclear weapons states is the most serious threat, conflict between India and Pakistan leading to nuclear war is the most serious concern. Finally, military conflict between China and Taiwan, though unlikely, might draw in the United States and escalate to nuclear weapon use. (pg. 27)

(3) Breakdown of the nonproliferation regime: The Carnegie Endowment recognize that the risk of accidental or inadvertent use of nuclear weapons remains. The major threat to the regime is new nuclear tests and a resumption of nuclear weapons testing. The end of reduction in global nuclear stockpiles, threats to use nuclear weapons against non-nuclear states, and the collapse of the Nonproliferation Treaty also represent descending severity of threats. (pgs. 27-28)

Methodology

To reach this ranking of threat, the authors do not employ any explicit methodology. The rankings are based on analysis and observation and the experience of the authors. Thus, for example, nuclear

terrorism is emphasized because (1) the authors share the widely understood and oft-stated fear that unlike states, non-state actors cannot so clearly be deterred from using nuclear weapons, and (2) the authors perceive many weaknesses worldwide in the ways in which nuclear weapons and nuclear explosive materials are secured and safeguarded.

Conclusion

The nine reports we reviewed here must obviously tread a fine line between clearly defining threats and doing so in a manner that does not share intelligence about vulnerabilities with potential adversaries. Specificity under such conditions is, of course, very difficult.

Overall, the reports underscore a "world astir," to adopt the term coined by the Hart-Rudman Commission. Many of the reports note angry and ideological populations, globalization and the potentially wide dissemination of nuclear, biological and other advanced technologies. The most vivid threats invoked in most of the reports, not surprisingly, involved, directly or indirectly, the acquisition and use of nuclear or biological weapons by non-state actors, with failed and weakened states playing an important role in fostering the environments that facilitate proliferation.

Although several of the reports pointed to the emerging economic importance of Asia, and especially China, such developments did not appear to mark a notable increase in threats to the U.S. In general, state threats to the U.S. were not a dominant concern in the threat analyses considered by most of the reports we consulted.

What constituted a "threat" incorporated different categories of immediacy or imminence. We noted *direct* threats such as a biological, chemical or nuclear attack on the homeland; *intermediate* threats such as the acquisition of advanced weapons technology by "rogue" states and non-state actors; and more *distant* or *fundamental* threats such as the pace of biological research and the growth of fundamental Islam.

With few exceptions, the reports focus almost exclusively on threats tied to identifiable agents, such as states or terrorist groups. There is some attention given to threats driven by enemies, but nevertheless human-related, such as climate change and emerging diseases. However, very little attention was given to natural threats, such as earthquakes, tsunamis, floods, droughts and famines, or even very unlikely events like asteroid impact.

The most notable threats not thoroughly explored were those associated with the nuclear weapons of the U.S. and Russia. None of the reports mentioned, for example, the risks of accidental nuclear war from the thousands of warheads that these two countries currently maintain on high alert. Nor did the prospect of a renewed nuclear arms race seem to be considered important.

By contrast, several of the studies did focus on the dangers of nuclear proliferation to other states and to non-state actors--though for the most part, the particular risks associated with *state* proliferation were left implicit.