Chapter Two

The Future Security Environment, 2001-2025: Toward a Consensus View

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Whether in business or defense, the first steps to any strategic plan include a definition of objectives and an evaluation of the environment in which those objectives will be pursued. This chapter addresses the latter requirement for the next QDR by outlining a consensus view of the future security environment for the years 2001-2025.[1] It derives this consensus through an attempt to reconcile the existing group of competing assessments of the anticipated outlines of future conflicts. Mindful of the potential for bias, it also seeks to identify dissenting viewpoints and potential wildcard events. The objective is to develop a baseline consensus of the probable future, but at the same time to identify those unpredictable catastrophic events--or predictable, yet unlikely, developments--against which hedging strategies could be adopted as a form of national defense insurance. Additionally, the intent is to identify issues about which a consensus could not be developed but which must be debated if any defense review is to be effective.

Like its 1997 predecessor, QDR 2001 is intended to be a strategy-driven assessment that balances the preparations of the present with the anticipated challenges and opportunities of the future.[2] On the surface it would appear relatively easy to construct an assessment of future trends to guide the review. A recent survey identified over 50 academic or professional "futures studies" conducted since 1989, the approximate end of the Cold War.[3] But there are problems in attempting to apply the results of these studies to effective policymaking, among them their lack of coordination, the significant differences in their methodologies and the time periods examined, the broad and divergent scope of topics, the presence of underlying and often unidentified biases, and the wide range of contradictory results. Many of the individual studies were constructed from a clean slate, taking scant account of previous related work. An unedited compilation of these studies would be capable of generating much debate, but would provide only a limited basis for policymaking.

To construct a policy requires a baseline consensus from which implications

and issues can be examined and analyzed. The methodology developed by the working group and reported in this chapter is straightforward. Thirty-six studies (unclassified or with pertinent unclassified sections) concerning the future security environment were selected based on standardized criteria.[4] These studies were representative of views from a wide range of organizations involved with or interested in national defense issues. The studies, with two exceptions, were published between 1996 and 2000. The choice of which studies to include here was based on the assumption that earlier themes would have been reflected in QDR 1997. These studies are identified in the appendix to this chapter.

The 36 studies were analyzed in detail and compared on a subject-by-subject basis. Sixteen points of consensus and nine points of divergence were identified and are reported in this chapter. The points of consensus are those on which 85 percent or more of the sources agreed. Points of divergence are those on which there was no clear majority position.

The consensus and divergence points were compared with the conclusions of over 300 other sources, most of them specialized studies of the specific topics.[5] The purpose was to identify dissenting positions on the points of consensus, as well to validate the fact that the consensus represents a majority view.

Both the primary and consulted sources were also surveyed for the identification of wildcards: events that could not normally be predicted, but that could present a considerable challenge if they were to occur during the 2001-2025 time period. Along with the divergence points, the wildcards indicate changes in the security environment that might require the development of hedging strategies.

The result was a consensus scenario that describes the anticipated 2001-2025 future security environment, presented below in narrative form, along with a list of potential unanticipated events that merit hedging.

Estimates, Forecasts, Scenarios, and Caveats

There are limitations, both conceptual and practical, in providing a consensus view of the future. First is the difficulty in comparing a mixture of assessments that use differing techniques. Three distinct methodologies are currently in favor for use in assessing the future security environment. *Estimates* utilize an assessment of current conditions to identify possible future events. The priority is accuracy, which requires a relatively short time horizon. *Forecasts* represent longer-range assessments, primarily relying on trends-based analysis. Most forecasts are issue-specific. *Scenarios* can be thought of as a range of forecasts, which tend to be richly developed depictions of alternate worlds based on plausible changes in current trends.

The strengths and weaknesses of the three primary methodologies for futures assessment have implications for policy recommendations.[6] But the most

important is the understanding that any attempt at deriving a consensus view requires the mixing of methodologies that were not necessarily designed to be compatible.

Moreover, while an assessment of the future security environment is the essential starting point for all strategic planning, history cautions against both its inappropriate use and a belief in a high degree of certainty.[7] Other factors also justify caution, including the problems of normative assessments, institutional bias, emotional reaction of individuals, and feedback effects, or the effects of taking action.[8] Futures assessments, even those that are based on linear trends in political events or the development of technology, inherently carry the biases of the assessors. Institutions and organizations, such as individuals, also have inherent biases. Such biases do not have to be products of deliberate distortion, but can evolve from seeing the world from a particular viewpoint. Within the Department of Defense, for example, each service has a unique culture evolved from its historical experience and the particular mediums in which it operates and through which past, present, and future are perceived.

Perhaps the most significant difficulty in developing futures assessments and translating them into policies and actions is the fact that all actions taken have the inherent effect of changing the future. By carrying out a plan, the conditions that inspired the plan are changed. The "feedback" dynamics of such change increase through the unfolding of competing actions, such as the plans of an enemy or its counterthrusts.

The limitations of futures analysis and the historical cautions concerning its use mean that the acceptance of any assessment entails risk. While, as a starting point for defense planning, the assessment of the future security environment is essential, it cannot guarantee the success of any policy based on its premises. Compiling a comparative assessment from a balanced mix of representative sources thus appeared to the NDU Working Group to be the best method of mitigating this risk.

Aspects of an Anticipated Future: Common Assessments and Consensus Predictions

The comparative analysis generated by the survey of the 36 identified studies identified 16 propositions that represent a general consensus of the sources. These propositions reflect a common assessment of the future security environment and mark the boundaries of the most likely future events. All of the propositions concern the time period 2001-2025. They can be divided into three broad categories: consensus concerning potential *threats,* consensus concerning *military technology,* and consensus concerning *opposing strategies.*

Such a "derived consensus" does not represent absolute agreement by the majority of sources, nor does it represent complete agreement with any proposition by any particular source. It is meant to be a starting point from

which choices about appropriate future strategies, policies, and force structure can be developed.

Table 2–1. Common Assessments, 2001–2025

Threats:

1. There will not be a rival ideology.
2. There will not be a rival military coalition.
3. There will not be a global military peer competitor.
4. There will be economic competitors, but this competition will not lead to war.
5. There will be regional powers that will challenge the United States militarily (but there is disagreement on who—China, Russia, rogue states?).
6. There will be more failing states.
7. There will be more nonstate threats to security.

Military technology:

8. Advanced military technology will become more diffuse.
9. Significant operational intelligence will become commercially available.
10. Other nations will pursue a revolution in military affairs, but the United States will retain the overall lead in technology.
11. If there is a technological surprise innovation, it is likely to be developed by the United States or one of its allies.

Opposing strategies:

12. The United States will retain control of the seas and air.
13. Regional powers will use antiaccess and area denial strategies.
14. Large-scale combat involving U.S. forces is likely to include the use of WMD.
15. The homeland of the United States will become increasingly vulnerable to asymmetric attacks.
16. Information warfare will become increasingly important.

Almost every consensus point has a corresponding dissenting or contrary view. In the process of translating the implications of future assessment into policy recommendations, the contrary views deserve consideration, both as cautions against precipitous policy recommendations and also as indicators of potential events against which a prudent strategy should attempt to hedge. Therefore, the following discussions identify both the details of the consensus view and the arguments of prominent dissenters.[9]

1. There will not be an ideological competitor to democracy on the scale of Cold War communism.

The propellant of the Cold War was the ideological struggle between democracy and communism as embodied in the United States and Soviet Union. With the dramatic victory of the West, ideology as an element of history did not end, but the rivalry between democratic capitalism and communism did end, at least for the foreseeable future.

The majority of future security-environment studies--both governmental and private--do not identify any other ideologies with global appeal, and thus do

not foresee a competing ideology before at least 2025.[10] The expansion of democratic values appears to be a by-product of globalization.[11] This does not mean that there will not be authoritarian nations claiming to be democracies, when in fact their political structure falls far short. However--with one significant dissenter discussed below--the consensus remains that the future will be one of an evolutionary increase in democratic states.[12] But the consensus view does include room for potential public discouragement and disillusionment in democracy and market capitalism.[13]

Although not professing to be a direct forecast of the future security environment, the thesis advanced by Samuel Huntington is that there are cultural challenges to Western-style democracy.[14] His view is that cultural identity plays a significant role in global politics and that there are natural frictions between the ethnic civilizations of our multipolar, multicivilizational world. In particular, he identifies the Islamic culture, with its traditional linkage between religious and political authority, as posing the greatest potential challenge to Americanized democratic liberalism by threatening a clash of civilizations.[15]

2. There will not be a rival coalition of states to challenge the United States militarily.

The consensus view is that economic and political globalization makes it unlikely that a rival coalition could form to challenge the United States militarily. Various nations may express their displeasure at particular U.S. foreign policies or the overall specter of American cultural imperialism, but most would have much to lose and little to gain in an anti-U.S. alliance.[16] There have been no credible forecasts that the European Union (EU) interest in developing a unified military force independent from the North Atlantic Treaty Organization (NATO) will lead to a potential military confrontation with the United States.[17]

Supporters of the view that a rival coalition is unlikely argue that the desire of lesser-developed nations, as well as Russia and China, to join the "first tier" mitigates anti-Western hostility. The closer both nations are economically tied to the West, the consensus view argues, the less likely that an anti-U.S. coalition will be formed.

However, a representative dissenting view postulates a loose rival coalition driven by "an increasingly more assertive China aligned with a much weaker, authoritarian Russia." [18] The primary driver would be U.S. action to deter a Chinese naval blockade of Taiwan in the 2010 timeframe.[19] The argument is that "while to some extent a worst-case scenario [and "the least likely to develop by 2025"], the potential for both Japan and Europe to turn inward and leave the United States alone to face a major challenge from China and other states is plausible and, as a parameter for future planning, must be considered." [20]

Although this is an unlikely scenario, there has been evidence of a desire on the part of the Russian leadership for a symbolic rapprochement with China as

a way of countering "global domination by the United States," especially U.S. criticism of Russian military actions in Chechnya.[21] Russia also sought, in late 1999, to recharge its diplomatic relations with the so-called rogue states.[22] Likewise, there have been suggestions that China would seek to put together alliances that "can defuse hegemonism by the U.S." [23]

3. There will be no conventional military peer competitor capable of sustained, long-term power projection beyond its immediate region.

To define peer competitor, one must ask what the military forces of the United States can do that those of other nations cannot. The succinct answer is that the United States is capable of projecting its military power on a global basis in a sustained fashion by means of its unparalleled logistics capabilities, including airlift, sealift, an extensive series of alliances, and expeditionary forces. Other nations can do so only to a limited extent.[24]

Whether *military peer competitor* is defined in terms of a "Soviet Union-equivalent" or by the capacity to sustain global power projection, the consensus view is that such a peer competitor cannot develop prior to 2025. It is not simply a question of pursuing the development of power-projection capabilities; rather, 25 years appear insufficient to duplicate the unique U.S. logistics and alliance networks.

However, the QDR 1997 report held out the possibility of the emergence of a "regional great power or global peer competitor," with Russia and China "seen by some as having the potential to be such competitors, though their respective futures are quite uncertain." [25]

Additionally, a Russia-China-led alliance could pose the possibility of simultaneous conflicts in multiple regions, which would severely tax the ability of U.S. forces to respond. This would be the closest equivalent to a global peer competitor, but it would still not match U.S. power-projection capabilities.

4. Economic competitors will challenge U.S. domination of the international economic system, but this will not lead to war.

Propelled by the perception of increasing trade competition between the United States and Japan, the 1990s saw a series of publications suggesting the potential for military conflicts based on economic rivalry. Although the particular controversy was effectively smothered--at least for the time being--by the Asian economic downturn of the late 1990s, the view of a linkage between economic conflict and war has remained. A staple of Marxist theology and post-First World War assessments, it resurfaced in the view that the Gulf War was all about oil. The potential for China to become an economic power, along with the evolving EU, have also been cited as precursors to politico-military confrontation with the United States.[26]

Despite popular concerns, the consensus remains that economic competition

need not lead to military confrontation and that it is very unlikely to do so in the 2001-2025 period. The particulars of U.S.-Japanese economic conflict are largely seen as reconcilable differences that will not affect security arrangements.[27] The prevailing view of the phenomenon of globalization is that such greater economic interconnection decreases, rather than increases, the potential for military conflict.[28]

One diverging view, however, holds a contrary view of the conflictual nature of globalization and global prosperity:

> Paradoxically, increased prosperity and integration tends to increase political instability. Prosperity leads to greater economic integration and dependency resulting in greater insecurity by increasing the importance of international economic relationships and therefore increasing the opportunities for friction. This, in turn, leads to greater insecurity.[29]

5. Regional powers may challenge the United States militarily.

The threat that regional powers will challenge the United States militarily and seek to prevent the United States from projecting power into their regions is universally considered the primary challenge that U.S. foreign and defense policy will face in the first decades of the 21st century. *Regional dangers* is the term used over and over again to describe the potential for "the threat of coercion and large-scale, cross-border aggression against U.S. allies and friends in key regions by hostile states with significant military power." [30] There is, however, disagreement over which power will pose such a challenge.

Initially, the first prime regional threat was thought to be the unpredictable actions (or collapse) of North Korea, the world's last true Stalinist state. The second was the actions of Saddam Hussein in Iraq, or the simmering hostility of Iran towards its Arabian Gulf neighbors and the West.[31]

However, these two MTWs do not necessarily represent the most demanding future threats. Nations that can sustain sophisticated defense industries and produce significant quantities of relatively modern weaponry and that have access to a large pool of trainable manpower would be the most formidable foes. From that perspective, there is clearly a rank order of potential (and current) regional military powers. Within this order, almost every futures assessment identifies Russia and China as having the greatest potential for regional dominance.[32]

Several additional *rogue states,* such as Iraq, Iran, or Libya, have the potential of becoming military powers in their region, particularly through the acquisition of WMD.[33] Rogue state scenarios are considered the basis for two-MTW planning. Rogue states might also seek to use terrorism or other deniable means, rather than confront the United States directly.

One or more of the rogue states (North Korea, Iraq, Iran, Libya, and Syria) might seek to challenge the United States militarily in the near term. Such an

assessment is based on current hostilities, plans or desire for regional dominance, propensity for aggressive military action, or a pattern of anti-U.S. military activity. In a longer-term view, the potential for conflict with a major regional power may grow, with Russia or China as the most difficult potential military opponents. However, there is no consensus as to which regional power or rogue state is likely to take action at any particular time.

In the sources surveyed, there are no significant arguments that a regional conflict is unlikely prior to 2025. There is, however, a perception that effective U.S. actions, along with a well-trained and technologically superior military, could deter such conflict. Likewise, astute management of relations with Russia, China, and India may prevent the development of actual hostilities.[34] Some sources argue that hostile states are simply too weak to mount a credible military threat to the overwhelming power of the Armed Forces.[35] However, a pessimistic view of the constant potential for regional conflict is widespread.

6. There will be more failing states, but U.S. involvement will remain discretionary.

The terms *failed states* or *failing states* have been increasingly used to describe nations that cannot provide law, order, or basic human necessities to their population. Such states may be wracked by civil war, ideological or ethnic hatreds, or other conflicts that prevent the central government from providing internal security or promoting general welfare.

While the internal consequences of such disorder have long been recognized, the external effects within the international environment have not always been considered a security threat to distant, stable nations. The question of exactly where the United States has vital or important interests fuels the argument that American efforts to restore order in failed states are largely a humanitarian effort that has little positive impact on U.S. national security. However, there are still compelling arguments for American intervention to stop genocide or massive loss of life.[36] Such arguments contributed to the American decision to prompt NATO intervention in Kosovo. But given the nature of democratic politics, such intervention ultimately remains discretionary.

Few if any sources are willing to predict categorically a future security environment in which significant numbers of failed states do *not* occur.[37] There are, however, optimistic scenarios that are envisioned, even in the case of Africa.[38] While some sources suggest an increase in the desire to take action to stem such conflict, others point to an increasing reluctance on the part of most nations to become involved.[39] Additionally, arguments have been made that advocates of intervention underestimate the complexity of involvement and that such involvement is often counterproductive.[40]

7. There will be more nonstate threats to security, but they will increase gradually, not dramatically.

The term *nonstate threats* is used to denote those threats to national security

that are not directly planned or organized by a nation-state. Today, foremost among these threats are acts of terrorism other than those sponsored by a rogue state. A loosely defined spectrum of nonstate threats includes humanitarian disasters, mass migrations, piracy, computer network attack, organized international crime and drug trafficking, terrorism with conventional weaponry, and terrorism with WMD. Nonstate actors include international organizations, nongovernmental organizations (NGOs), multinational corporations, and multinational interest groups.

Alarmist predictions that nonstate actors, issues, and threats would overwhelm and break the abilities of most nation-states to deal with them have not materialized.[41] Nations that have collapsed into anarchy have largely been victims of civil wars, a phenomenon that long preceded the current definition of nonstate threats. Many of these civil wars have been fueled or supported by foreign parties, international actors, or other nations. To that extent, nonstate or transnational threats do contribute to such internal collapse, but in ways that are not unprecedented historically.

The consensus of the sources is that nonstate threats will increase in number and intensity in the future. However, this anticipated increase parallels vulnerabilities that are by-products of the evolutionary process of globalization. Nonstate threats may seem more potent due to the advantages modern technologies may bring to the perpetrator. However, the same or other modern technologies can be used to strengthen defenses. But this does not solve the near-term problems of terrorism, particularly if terrorist groups come into possession of WMD. The consensus view is of concern about the near-term potential for terrorist incidents, but the level of current and future vulnerability of societies to terrorism is still hotly debated.[42]

No sources maintain that nonstate threats will not increase in the 2001-2025 timeframe. However, some sources do view the rise of these threats as exponential rather than gradual, with more alarm than the consensus view might imply. Of particular concern is the possibility of terrorism with WMD, also known as *catastrophic terrorism.*[43]

8. Advanced military technology will become more diffuse.

The category of advanced military technology constitutes a spectrum of technologies or innovative uses of technology developed during the last few decades: from emerging biological weaponry and other WMD, to new forms of nonlethal weapons, including information operations using mass media.[44] It includes highly accurate ballistic and cruise missiles; fourth-generation combat aircraft; complex surveillance, detection, tracking, and targeting equipment; surface-to-air missiles; nuclear powered submarines; and other relatively high-cost systems.

The consensus of the sources is that advanced military technology will continue to be diffused through sales, modification of dual-use systems, and indigenous weapons development programs. Although international export control regimes may exist for certain types of advanced weapons, these

agreements appear to be easily circumvented. Iran, Iraq, North Korea, Pakistan, and India have all effectively foiled the efforts of the Missile Technology Control Regime.[45] Control regimes appear to have slowed potential nuclear weapons development by rogue states, but there appear to be other covert proliferation efforts.

Although there are sources that endorse greater efforts to negotiate and strengthen weapons control regimes, none argue that military technology will not continue to become more diffuse in the 2001-2025 period. In fact, it is the rate at which military technologies are spreading that prompts the more urgent calls for international controls. Under current circumstances, proliferation of advanced systems appears to be simply a matter of time and resources.

9. Significant operational intelligence will become commercially available.

Given the current trends in space launch and commercialization, the consensus is that operational intelligence--primarily satellite imagery--will become more and more commercially available. Yet the consensus is that the United States will "maintain a preponderant edge, using its technical systems to produce timely and usable information." [46] The infrastructure necessary is simply too difficult to create except through the obvious expenditure of considerable resources. The consensus viewpoint concerning militarily significant commercial information is that although it might be available to a potential aggressor until the commencement of hostilities, it would be voluntarily or covertly shut down upon the initial attack. But the fact that operational intelligence would not remain available during conflict may be of little consolation, since the information obtained before hostilities would be sufficient to target fixed sites, such as land bases, in advance. The use of WMD might also make the need for real-time targeting information moot.

None of the sources surveyed suggested that operational intelligence will not become commercially available in the 2001-2025 timeframe. Opposition to the consensus view revolved around two points: that satellite information is largely irrelevant to the most likely threats the U.S. military will face, such as Third World anarchy and small-scale guerrilla warfare, and that a cut-off of commercial imagery during hostilities cannot be presumed.[47]

10. Other nations will pursue a revolution in military affairs (RMA), but the United States will retain the overall technological lead.

A number of advances in military technology are frequently cited as evidence that an RMA is under way, and even skeptics concede that these advances have had a tremendous effect on warfighting.[48] Advances in information processing and command and control are cited most frequently, with predictions of increasing availability of real-time information at the command level. Some proponents claim that new intelligence, surveillance, and reconnaissance (ISR) technology and battle management systems can dispel the fog of war that has previously prevented commanders from having a thoroughly accurate picture of the battlefield.[49]

Also frequently linked to the RMA are precision weapons. Other technological advances, from biological weapons to miniaturized "nano-systems," are also frequently seen as pushing modern warfare away from the bloody killing fields of ground combat.

Critics concede that the advances in military technology have greatly increased the striking power of modern militaries. However, they argue that such advances have not changed the fundamental concept of warfare and that victory ultimately requires closing with the enemy and occupying territories or destroying centers of gravity.[50]

Potential opponents may pursue an RMA through the development of advanced weaponry, but--barring a catastrophic economic disaster in the West--they cannot surpass the overall U.S. lead in advanced military technologies during the 2001-2025 timeframe.[51] Certain niche technologies, such as advances in chemical and biological warfare or the development of miniaturized nano-weapons that would be easier to transport and deploy in space or on earth, could provide a temporary technological lead in specific areas.[52] Developing such a niche could give a state with limited resources more bang for its buck, but such a development would be unlikely to make the entire U.S. arsenal obsolete, or completely paralyze decisionmaking. At the same time, the overall technological lead by the United States would facilitate the development of defenses against these advantages, or at least methods of mitigating the threat.

While conceding America's current overall lead in military technology, several sources point to alarming trends. The Nation is not producing enough engineers and scientists to maintain the knowledge capital to retain the overall technological lead.[53] Worse, from this perspective, the American education system is loyal to potential opponents.[54] Eventually other countries could take technological leadership.

Other sources argue that the United States is not taking the RMA seriously enough and is squandering its technological lead.[55] In this view, DOD continues to spend money on so-called legacy systems, while underfunding both basic and advanced research and development and experimentation. This combination could give opponents an opportunity to leapfrog over the capabilities of the formidable U.S. arsenal and to make its overall technological superiority moot.[56]

11. If there is a technological surprise, it is likely to be developed by the United States or one of its allies.

A consensus of the sources examined views a truly unanticipated development in military technology as unlikely in the 2001-2025 period. But if one were to occur, the consensus view holds that it would most likely be the product of a Western or developed nation, not a nation hostile to the United States. If a technological surprise were to occur in a hostile state, it is likely that it could be quickly replicated somewhere in the West. Infrastructure, knowledge base,

and commercial incentive appear to be the drivers of new, surprising innovations, and these are centered in the democratic capitalist states.[57]

Among those assessments of the future security environment that identify potential wildcards, a major technological surprise was listed as an occurrence of potential concern.[58]

12. The United States will retain control of the seas and air.

The consensus is that the size and level of operational experience of the Navy and Air Force make it nearly impossible for potential opponents to mount a serious challenge in the waters and in the air space over the world's oceans.[59] This is likely to continue until 2025. Even if potential opponents are not deterred from direct competition against these American strengths, it would take at least 20 years for any competitor to build to the numbers and sophistication of the naval and air fleets. That is not to say that an opponent would not seek to contest sea and air control in its own region, or even individual force-on-force engagements outside its region. However, the investment needed to challenge the United States on a global basis in areas that the Nation has long maintained operational advantages is staggering.[60]

No source suggests that U.S. naval and air assets could be decisively defeated, and particularly not within the global commons in the 2001-2025 period. However, concerns are frequently expressed that the United States could become complacent with its current margin of superiority and elect not to replace aging systems with more technologically advanced first-line platforms. Over a long term, the cumulative effect of a procurement holiday might make the bulk of U.S. naval and air forces obsolete.[61] The concept of block obsolescence for legacy systems also appears in the arguments of proponents of transformation. Critics of American complacency also point to the continuing development of high-technology weaponry for export by technologically advanced nations.

Some also argue that general American dominance of sea and air is largely irrelevant in dealing with the more likely future threats of terrorism, chemical, biological, and information warfare, and failing states, as well as against the prepared antiacces2 or area denial strategies of regional opponents.[62]

13. Regional powers will use antiaccess and area denial strategies.

The potential use of antiaccess or area denial strategies against American power-projection capabilities has been a focal point of research by the Office of Net Assessment within the Office of the Secretary of Defense since at least the mid-1990s.[63] Originally these studies had a maritime focus. In the logic of the antiaccess approach, a potential opponent would not seek to engage the Navy at sea, where the United States holds absolute dominance. Rather, it would seek to prevent U.S. maritime forces from entering its littoral waters by massive attrition attacks using asymmetric weapons, such as WMD.[64] However, these studies were soon expanded to include examination of all U.S.

overseas presence and power projection forces.

The obvious first step in such an area denial effort would be to neutralize any existing lodgment that the Armed Forces already have within the region by destroying U.S. forward-presence forces while simultaneously attacking the regional infrastructure for follow-on power projection forces. Another step would be to attack the ports and airfields for the embarkation of forces in the continental United States (CONUS). However, that is generally outside of the anticipated conventional capabilities of most regional powers.[65] Additionally, a strike against the U.S. homeland could strengthen rather than discourage national resolve.[66]

With regional land bases destroyed and maritime access denied, the potential regional opponent would have effectively extended its defenses out to the entry points of its region. The United States will find itself in the position of having to undertake potentially costly forcible entry operations. Even in this war of attrition, it is likely that the United States would eventually breach the antiaccess defenses, particularly through the use of standoff weapons stationed outside the region or in CONUS. However, the real goal of an antiaccess strategy is to convince the United States or its allies and coalition partners that the cost of penetration is simply too high.[67]

The consensus of sources surveyed is that antiaccess or area denial is the most likely campaign plan for an opponent of the United States to adopt, and thus the likely opposition that strategic U.S. power projection forces would face in an MTW. This conclusion is based not only on the proliferation of ballistic missiles and other weapons, including WMD, but also on the underlying logic of the strategy itself.[68]

None of the sources surveyed maintain that it is unlikely that a potential opponent would adopt an antiaccess strategy in order to prevent the United States from intervening to stop regional cross-border aggression. If such an MTW were to occur, an antiaccess strategy would appear the best--perhaps only--method to blunt U.S. power-projection strength. However, a number of sources see the occurrence of cross-border aggression and MTW as much less likely than the chaos of failed states and internal civil strife.

Perceptions also differ concerning the actual ability of regional aggressors to carry out regional closure in the 2001-2025 timeframe.[69] Several sources suggest that, before 2025, most potential opponents will be unable to use ballistic missiles effectively against moving targets, leaving U.S. air and naval forces free to attack the weak points of an antiaccess campaign.[70] Other sources suggest that the ability of rogue states to coerce potential allies into denying American access to their territory has been overstated.[71]

14. Large-scale combat involving U.S. forces is likely to include the use of WMD.

The desires of certain states for WMD arsenals, the rate of actual proliferation, a seemingly growing disregard of the laws of armed conflict, and the lessons

of the Gulf War suggest a potential for integration of WMD into military operations.[72] Most sources assume that proliferation will continue in the 2001-2025 timeframe and that many of the international control regimes seeking to prevent the spread of WMD will break down or will be ignored. Terrorist groups also appear interested in purchasing or developing WMD. Underlying technologies, particularly dual-use systems such as nuclear reactors that could enrich uranium as well as generate power, are becoming available to potential aggressors and provide cover for weapons development. Humanitarian NGOs report that the laws of war appear increasingly to be disregarded, with less and less discrimination between attacking military forces and civilian noncombatants. Tyrannical regimes facing potential removal by outside forces--such as those of the United States or a U.S.-led coalition--appear increasingly tempted to use WMD in combat.

The majority of the sources surveyed view the likelihood of use of WMD during large-scale conflict in the 2001-2025 period as quite high. The consensus is that use of chemical or biological weapons would be more likely than nuclear war. Many sources view WMD use as the primary future threat to American security. There seems to be agreement that, if certain rogue states have WMD, they would be used for the survival of tyrannical regimes.

The potential of WMD in the hands of terrorist groups is considered a more frightening situation by many sources. Terrorist attacks could be directed against vulnerable civilian populations as well as military forces.

There is a perception, however, that use of WMD against the United States in conflict can be deterred.[73] The rate of increase in nuclear arsenals during 2001-2025 does not suggest that more than perhaps two or three states, if any, could threaten the United States with mutual destruction. Because chemical and biological weapons are routinely categorized along with nuclear weapons as WMD, there is, by definition, ambiguity as to whether use of chemical or biological weapons would provoke a U.S. nuclear retaliation. Thus, the use of WMD against forces in large-scale armed conflict with the United States might be deterred by the U.S. nuclear arsenal.

Sources that view chemical and biological weapons as the significant threats of the 2001-2025 period do not necessarily dispute the deterrent effect of the U.S. nuclear arsenal, or even the deterrent effect of conventional power-projection forces. Rather, they argue that it is possible to use WMD on American soil or against U.S. forces in a manner that could render the source of the attack unidentifiable.[74] If they could make it appear to be a terrorist attack, potential state opponents might believe that they could successfully attack the United States without retribution.[75] They might use ostensibly unsponsored terrorist groups as proxies in a WMD attack designed to paralyze American response to far-off regional aggression.

Other sources argue that technology (and the American psyche) will inevitably render such attacks attributable, mitigating the attractiveness of such a reckless course of action. An additional deterrent might be U.S. theater ballistic missile defenses. If positioned in theater prior to the actual outbreak of conflict, such defenses might deter WMD use in the initial stages, or perhaps deter the entire

conflict itself.

It has also been suggested that a U.S. declaratory counterproliferation policy of pursuing regime change in the event of WMD use, or threats of use, would also have considerable deterrent effect. If the likely end result of any WMD confrontation with the United States or ally would be the decapitation of the aggressor, rogue states might reconsider any potential tactical advantages of WMD use.[76]

15. The U.S. homeland will become increasingly vulnerable to asymmetric attacks.

The perception that the U.S. homeland will become increasingly vulnerable in the 2001-2025 period can be traced to the National Defense Panel report of 1997. It has subsequently become an almost universal forecast. In 1999, the U.S. Commission on National Security/21st Century echoed the prevailing perception that "America will become increasingly vulnerable to hostile attack on our homeland, and our military superiority will not entirely protect us." [77]

With the end of the Cold War and the agreed de-alerting of nuclear forces, along with reductions in overall U.S. and Russia nuclear arsenals, it would appear that the American populace is much less directly vulnerable than they have been in at least 30 years. However, others point to the balance of terror that made a nuclear war between the United States and Soviet Union irrational. Rogue states, they argue, are less likely to be deterred from making asymmetric attacks on the U.S. homeland in the event of a conflict.[78] Indeed, asymmetric attacks may be the most useful--and perhaps only--military tool in the hands of potential opponents.[79]

The consensus is that the U.S. homeland will become more vulnerable to new threats, particularly chemical and biological weapons in the hands of rogue states and terrorist groups.[80] The ability to transport such weapons in small packages that can easily be smuggled is often cited as a contributing factor. In addition, rogue regimes such as in North Korea are attempting to develop ballistic missiles capable of reaching the continental United States. States that do not possess fissile material could opt for chemical or biological warheads.

Realization that the forward-defense posture allows for only limited defense of the U.S. coastline and airspace has increased.[81] At the same time, the Internet and the ubiquitous nature of computer control seem to have made the American infrastructure more vulnerable to information warfare. Computer network defenses are possible, but at both financial and social costs.

The consensus position differs from more alarming forecasts on questions of the degree of future vulnerability. The majority view is that the increase in such threats is evolutionary, rather than exponential. As use of the Internet continues to penetrate society, the vulnerability to disruption increases, but so will redundant and protected systems. As globalization causes a rise in transnational or nonstate threats, such as massive migrations, its economic benefits may mitigate such threats. Meanwhile, the United States appears to be

taking steps to deal with the potential for catastrophic terrorism and infrastructure attack.[82]

Several sources suggest that the rate of development of future threats--fueled primarily by the malicious use of new technologies--is indeed increasing dramatically. From this perspective, increasing homeland vulnerability is inevitable, particularly if active defenses, interagency cooperation efforts, redundancy, and reconstitution do not receive substantial funding increases within the U.S. defense budget.

16. Information warfare will become increasingly important.

Information warfare refers both to the use of various measures to attack the information technology (IT) systems on which a military opponent may depend and to the control and manipulation of the information available to the civilian populace of an opposing state.[83] Computer network attack might be aimed at systems providing the ISR or command and control capabilities necessary for modern, high-technology warfare, or it might be an asymmetric strike on the civilian infrastructure of the opponent's homeland. Additionally, an IT-based public relations war could have a less lethal and more indirect effect on the populace than computer infrastructure attack, but as seen in the Vietnam War experience, it could have a more direct effect on the government's willingness to prosecute a war.[84]

The U.S. government has recently addressed computer network defense and critical infrastructure protection, but in the face of an emerging and somewhat indistinct threat, defense necessarily lags offense.[85] An aspect of concern to some is the potential anonymity of attack and the possible use of information warfare by nonstate actors, particularly terrorist groups. Hackers and terrorists could use multiple paths of entry to disguise their identities and intentions.[86] Although it is possible to trace these paths to a source, such efforts take time and resources.[87] The question remains whether a hostile state could mask an information attack to such an extent that the United States would be unable to determine the source in order to take timely defensive or retaliatory actions.

In classical military terms, the use of information is an attempt to lift the fog of war that envelops the battlefield. Commanders have always tried to acquire accurate information; what is different is that modern IT appears to provide a greater opportunity to clear away the fog than ever before. Thus, it is natural for U.S. forces to strive for "information dominance" or "knowledge superiority" in any conflict.[88] The fact that there are more tools to make more information available suggests that information has become more important to victory.[89] This also implies that deception, disinformation, and the use of mass media are also of increasing value as military tools.

The consensus of sources is that information is increasing in importance as IT increases in reach and capacity. But the growing dependence on precise information for combat operations also creates greater opportunities for deception. Technologically superior armies, like open societies, appear more vulnerable to denial and deception than less interconnected forces or closed

societies.

While there is no overt disagreement with the proposition that information will be a critical element in future warfare, there is disagreement over the extent to which information--and, by extension, information warfare--will be the dominant element.

An opposing viewpoint is that modern IT does ensure that the fog of war can be lifted and suggests that the U.S. military must be radically transformed in order to optimize its capabilities in an information warfare-dominant future.[90]

Divergence and Contradictions

The 16 points of consensus form a baseline from which an effective debate on defense planning priorities, during QDR 2001 or any other defense review, could proceed. Likely issues of such a debate can be identified from the diverging views and contradictfons among the 36 surveyed sources. These alternative assessments of the future are presented here as *either-or* statements, but there are varying degrees of agreement, and the *either-or* statements generally represent the extreme ends of the range.

Table 2–2. Divergence and Contradictions

Nature of conflict:

1. A. It is unlikely that two MTWs would happen simultaneously.
   or
   B. Two nearly simultaneous MTWs will remain a possibility.

2. A. Future wars will be more brutal with more civilian casualties.
   or
   B. Information operations and precision weapons will make warfare less deadly.

3. A. Chaos in littorals or panic in the city are more likely contingencies than MTW.
   or
   B. MTW will remain the primary threat to security.

4. A. Space will be a theater of conflict.
   or
   B. Space will remain a conduit of information, but not a combat theater.

Threats:

5. A. A near-peer competitor is inevitable over the long term; we need to prepare now.
   or
   B. Preparing for a near-peer will create a military competition (thus creating a near-peer).

6. A. Overseas bases will be essentially indefensible.
   or
   B. Future capabilities will be able to defend overseas bases.

Opposing Strategies:

7. A. Current (legacy) U.S. forces will not be able to overcome antiaccess strategies except at high cost.
   or
   B. Techniques of deception or denial of information will remain effective in allowing legacy systems to penetrate future antiaccess efforts.

8. A. Nuclear deterrence will remain a vital aspect of security.
   or
   B. Nuclear deterrence will have an increasingly smaller role in future security.

9. A. Conventional military force will not deter terrorism or nonstate threats.
   or
   B. U.S. military capabilities will retain considerable deterrent or coercive effects against terrorism and nonstate threats.

For the purpose of defense planning, identification of contending predictions about the future security environment is the prelude for making deliberate choices on how to prepare for and perhaps to hedge against an analytically uncertain future.

1. (A) It is unlikely that two MTWs would happen simultaneously.
1. or
1. (B) Two nearly simultaneous MTWs will remain a possibility.

A number of critical assessments--some of which are linked to a recommended strategy or force structure different from the current

posture--discount the possibility of two MTWs occurring nearly
simultaneously. Preparing for two such overlapping contingencies is dismissed
as unsupportable worst-case thinking. Yet, despite dismissive rhetoric, few
present detailed logic as to why such an occurrence could not happen. Taking
a cue from the National Defense Panel, many analysts find the two-MTW
construct inconvenient to their recommendations for transformation, since
readiness for the simultaneous scenarios requires considerable expenditure of
resources and the maintenance of considerable standing forces.

When assessments of potential regional conflicts (derived from consensus
point number 5 above) are combined, the possibility of crises or conflicts
developing nearly simultaneously in two or more regions seems plausible.
There are both historical precedents and strategic logic for a potential regional
opponent to make aggressive moves when conflicts are occurring in other
parts of the world. While the United States is responding to the first conflict or
contingency, an aggressor might believe that the objectives of a second
conflict would be easier to achieve.

It has become common to describe recent NATO actions against
Serbia--presumed to be a smaller-scale contingency--as using one
MTW-worth of airpower.[91] If SSCs occur at a near-continuous rate, it is
almost inevitable that two or more will occur nearly simultaneously. The
United States may not choose to involve itself in more than one SSC, but if it
did choose to handle two, what would happen if one or both were to require an
effort worth two MTWs? The divergence of views on the probability of
overlapping MTWs, like the other contradicting statements, forms
fundamental issues of the debates to be expected in the QDR 2001 process.

2. (A) Future wars will be more brutal with more civilian casualties.
2. or
2. (B) Information operations and precision weapons will make warfare
less deadly.

The question of whether future wars will be characterized by greater brutality
and greater civilian casualties or instead by more discriminate attacks and
fewer civilian casualties often arises in debates concerning the existence and
effect of an RMA and the importance of information warfare. At one end is
the view that the trend is toward a "world of warriors" in which youthful
populations of less economically developed nations are involved in ethnic,
religious, or tribal conflict. This gives rise to more brutal forms of warfare, in
which in the international laws of war are rarely observed.[92] The ethnic
cleansing of Bosnia and Kosovo (along with a myriad of civil wars),
conducted largely by paramilitary terror squads whose primary activities
involve the killing of unarmed civilians, are cited as representations of the
future of war.[93] Combatants and noncombatants are rarely distinguished.
Victory consists of complete destruction of the lives and property of an
enemy.[94] Such wars will involve ethnic cleansing, genocide, mass movement
of refugees, famine, torture, and rape. Weapons can range from the primitive
to the merely unsophisticated. While armored vehicles, artillery, and
shoulder-held anti-aircraft missiles may be used, the dominant platform is the

individual warrior--as young as 12 or under--and the small arms carried.[95] Commercial global positioning system receivers and cellular phones are useful, but not essential for operations. The implication is that the sophisticated precision weapons, along with the information systems, that characterize U.S. Armed Forces have relatively little effect against such an enemy.[96]

At the other end is the vision that precision weapons and information warfare will make warfare both less likely and less bloody. Kosovo is also used as an illustrative case, this time as an example of how precision bombing, with considerable effort to spare civilian lives and property, was able to win a modern war and reverse ethnic cleansing. Because such precision strikes rely on accurate ISR, the processing of information is a dominant feature of this style of war. Proponents of information warfare argue that the manipulation of information may, in itself, preclude physical combat in future conflicts.[97] Under perfect conditions, it is argued, the manipulation of information will prevent a populace from going to war by persuading its members that the war is unjustified or is already over, or turning them against governments intent on war.

Somewhere in between these views is the argument that future wars will not necessarily be more brutal, but that precision strike and information warfare do not presage an era of immaculate warfare. The U. S. Commission on National Security/21st Century, while generally enthusiastic about the precise effects of emerging military technology, expresses this middle ground in its findings:

> Despite the proliferation of highly sophisticated and remote means of attack, the essence of war will remain the same. There will be casualties, carnage, and death; it will not be like a video game. What will change is the kinds of actors and the weapons available to them. While some societies will attempt to limit violence and damage, others will seek to maximize them, particularly against those societies with a lower tolerance for casualties.[98]

3. (A) Chaos in littorals or panic in the city are more likely contingencies than MTW.
3. or
3. (B) MTW will remain the primary threat to security.

The issue of the separation between military personnel and civilians, or between combatants and noncombatants, underlies the question of where and how future warfare will take place. Classical warfare is assumed to take place between clearly identified armies in terrain suitable for direct engagements. History--replete with siege warfare, attacks on infrastructure, and massacres of civilian populations--may demonstrate that the ideal is actually an exception. However, there remains the popular impression that war is, or at least should be, about defeating cross-border aggression as envisioned in the current MTW scenarios.

Of course, the Armed Forces are used for more than MTWs. Throughout its history, America has called on its Armed Forces to deal with many contingencies outside of formally declared wars. These contingencies have ranged from punitive expeditions to humanitarian interventions. The number of such SSCs has greatly increased since the end of the Cold War. Along with a greater propensity on the part of American decisionmakers to intervene, American military involvement in MTW against cross-border aggression has been relatively rare. From this perspective, Operation *Desert Storm* represents the exception rather than the rule.[99] Given the apparent increase in the number and frequency of nonstate threats and the potential for asymmetric operations, it has been suggested that the primacy of the DOD focus on preparing for classical MTW is a mistake. The threats of the future, according to this view, will be significantly different and require a different emphasis in preparations.

One perspective is that future conflicts--particularly those within failed states--will present little opportunity for firepower-intensive warfare. There will be no front lines, no rear areas, and, in some cases, no clearly identifiable enemy force. Rather, there will be an overall atmosphere of chaos in which the primary mission of U.S. military forces will be to establish order and to quell violence in the most humane way possible. Forecasts sponsored by the Marine Corps point to the continuing urbanization of the world's population and the continued breakdown of failed states as leading to numerous tribal-like conflicts.[100] Apropos of a naval service, Marine Corps-sponsored briefs point to the fact that over 70 percent of the world's urban population is within the operating range of a coastline, otherwise known as the littoral region. Chaos in the littorals is shorthand for such future contingencies that occur within the region, intervention into which could potentially be done best by forces from the sea.[101]

A slightly different perspective can be termed panic in the city, spurred by the potential use of chemical or biological weapons in urban areas. Proponents of this view are concerned that asymmetric or terrorist attacks could create chaotic conditions within the U.S. homeland.[102] The U.S. military would be expected to stabilize chaotic conditions not only overseas, but also to do the same at home. While many emerging strategy alternatives call for increased military involvement in homeland security, most assume that the military would play merely a support role to civil authorities, providing resources that may not be readily available in the civil sector. In contrast, those who view panic as the new weapon envision homeland security as the preliminary or even the primary mission of the Armed Forces. The implication is that civilians cannot face the physical or psychological aspects of the chemical and biological warfare threat alone and that both precautions and responses should be a direct military function. Once the perception of homeland sanctuary is broken by an actual attack, the American population would panic into fleeing toward areas of perceived safety and demand that their elected officials cease whatever foreign activities may have provoked such an attack. To prevent such a scenario, sources argue, the military needs to refocus its efforts away from the less likely case--classical military response to cross-border aggression--and toward the more direct and more likely threats of asymmetric attacks against the homeland and the use of panic as a weapon of the

globalized future.[103]

In contrast, a significant number of sources continue to view MTW as the most likely warfare in which the United States would become involved, and job number one for its military. From this perspective, America's large-scale warfighting capability is the primary deterrent of both chaos and asymmetric attack. The divergence of opinion on whether future warfare will *primarily* take the form of chaos in the littorals and panic in the city, or will mostly resemble the expected forms of MTW, appears to be more related to preferred prioritization of threats than any conclusive forecast of wars to come. But there is evidence on both sides of the issue.

4. (A) Space will be a theater of conflict.
4. or
4. (B) Space will remain a conduit of information, but not a combat theater.

The question of the so-called militarization of space is particularly contentious. Space-based ISR is critical to U.S. military operations. They gave such an informational and command and control advantage during Operation *Desert Storm* that some have referred to the Gulf War as "the first space war." [104] However, there are great distinctions between the military *use* of space, a war *from* space, and a war *in* space.[105] Every future assessment predicts increasing use of space assets by the military; however, there are wide differences over whether a war from or in space could occur in the timeframe prior to 2025.[106]

A number of sources are very certain of the potential for a force-on-force space war. The U.S. Commission on National Security/21st Century's "Major Themes and Implications" states explicitly that "Space will become a critical and competitive military environment. Weapons will likely be put in space. Space will also become permanently manned." [107]

An opposing viewpoint is the forecast that militarization of space is not likely to occur prior to 2025. This reasoning projects a continuing U.S. advantage in military space systems based on its previous investment and infrastructure development. From this posture, "the United States is in a good position to win any ensuing arms race."[108] Another potential inhibitor of space-based weapons are the international treaties governing space activities.[109]

But skeptics of treaty prohibitions tend to share a view of the inevitability of the introduction of space weaponry in the 2001-2025 timeframe. As former Secretary of the Air Force Sheila Widnall argued, "We have a lot of history that tells us that warfare migrates where it can--that nations engaged in conflict do what they can, wherever they must. At a very tender age, aviation went from a peaceful sport, to a supporting function, very analogous to what we do today in space--to a combat arm. Our space forces may well follow that same path." [110] A similar argument was made by the DOD Space Architect in 1997: "To hope that there will never be conflict in space is to ignore the past." [111]

5. (A) A near-peer competitor is inevitable over the long term; we need to prepare now.
5. or
5. (B) Preparing for a near-peer will create a military competition (thus creating a near-peer).

As discussed above in consensus point number 3, the development of a global military near-peer competitor to the United States prior to 2025 is unlikely. However, that forecast does not quell the debate on whether such a near-peer is inevitable in the long term. Sources that view a near-peer as inevitable base their argument on historical example; every aging leader is eventually challenged by younger, growing competitors. To ignore this is also to ignore the past. In the study of international relations, there appears always to be a struggle among states to become the hegemon that dominates the international system.[112] Even scholars who question the morality of hegemonic control--and in particular the apparent U.S. position as the current hegemonic power--appear to believe that such a struggle is natural between states.

If the struggle for hegemonic control is the natural order of the international system, it would also be natural that those responsible for the security of the United States--including its freedom, its institutions, its population, and its prosperity--would prepare for such a struggle. While there may be a continuous debate as to which preparations are most appropriate and how the outbreak of hostilities can be deterred in the near term, there seems to be agreement among many that a dissatisfied state could eventually build itself into a military near-peer to the United States sometime after 2025. The belief in the inevitability of a near-peer is also reflective of consensus point number 8 that "advanced military technology will become more diffuse." As military technology becomes more diffuse, it appears inevitable that any American advantage in military technology will gradually shrink, creating de facto near-peer competitors.

There is, however, an alternative view on the inevitability of military near-peer competition. In this view, it is not "natural order" that causes near-peer challengers to arise, but, rather, the actions of the leading power that cause such a competition.[113] Supporters of this view range from those who see a competitive international system as an anomaly of the capitalist world to those who view gradual world democratization as eventually leading to a world free from major war, under the premise that democracies do not fight democracies. Others subscribe to the belief that near-peer competition is not inevitable as an unspoken corollary to their idea that a leading power can take actions that prevent such a competition from occurring. To some extent, such i view underlies the premises of the proposal by Ashton Carter and William Perry for Òpreventive defense." [114]

The question of the inevitability of a near-peer competitor after 2025 is not merely an academic question. It ties directly to the choice of a future defense policy. If conflict with a near-peer competitor is inevitable after 2025, it would behoove the United States to take distinct steps to develop a defense policy

and force structure that would retain military superiority sufficient to dissuade, deter, or--if necessary--defeat a potential near-peer opponent.[115]

However, if it is actual or proposed military preparations of the hegemon that propel other states to seek parity, it may be in the interest of the United States to break the cycle of increasing military expenditures in order to prevent the development of a near-peer. Specific policies could be adopted--along the lines of preventive defense--that seek to co-opt or to manage a potential near-peer by allowing a degree of American vulnerability in order to preserve the current balance, which appears to favor the United States.[116]

6. (A) Overseas bases will be essentially indefensible.
6. or
6. (B) Future capabilities will be able to defend overseas bases.

The potential reach of opponents into space, along with the adoption of other techniques of antiaccess or area denial warfare, would have a damaging impact on the overseas bases upon which America's current power-projection forces appear to depend. If the 2001-2025 period is indeed one in which potential opponents strengthen their antiaccess capabilities (as appears to be the consensus in point number 13 above), then the threat to overseas bases would appear to increase. This forecast is commonly accepted.[117] However, there is a debate among the sources as to whether the nature of the future security environment, and the laws of physics and diffusion of technology, will make an overwhelming threat to fixed land bases permanent.

To the bases-will-be-indefensible school, defensive measures simply cannot keep up with the offensive threat that places fixed military forces at grave risk.[118] In this perspective, the action-reaction phenomenon of military technological development naturally favors offensive systems. Even with theater ballistic missile defenses in place, overseas bases could be attacked with WMD by other means of delivery, such as cruise missiles, attack aircraft, or artillery shells.

At the same time, there may be political vulnerabilities that make overseas bases, particularly those within the sovereign territory of a host nation, much more difficult to defend. The host nation may seek to placate a potential aggressor by insisting that defenses be kept minimal in order to maintain the current strategic balance. If the base relies on the movement of mobile defenses into the theater, such as Patriot missile batteries, then they are vulnerable to preemptive attack or coercion. The host nation may decide not to let the United States use its base facilities lest such permission provoke an attack by a regional aggressor. This would make mounting a power-projection campaign considerably more difficult.

It may be a reaction to the implications for American power projection that causes other sources to insist that overseas bases could be successfully defended in the 2001-2025 timeframe. To admit growing vulnerability could cause undesired revolutionary changes in the allocation of defense resources. However, the view that bases can be defended also argues that emerging

military technologies can make defenses against WMD more effective. The continuing and natural lead of America and its allies in emerging military technology, as identified in consensus points 10 and 11, cause some to conclude that defenses can match offenses, particularly when backed by the eventual triumph of qualitatively (and possibly quantitatively) superior U.S. power projection.[119] Likewise, the regional use of WMD may be deterred by the vast U.S. nuclear arsenal, use of which might be provoked by significant casualties of American military personnel or host-nation civilians. Other sources argue that overseas bases can be defended by sea-based or space-based systems.

Additionally, there is the argument that the vulnerability of land bases actually works to the advantage of the Nation. If overseas-based U.S. forces are attacked, then it is likely that U.S. determination to push for the enemy's regime change would be reinforced. This perception could potentially deter a regional aggressor from launching such a strike. Also, the vulnerability of the host-nation's territory to an aggressor might provoke the host nation to seek greater rather than lesser military cooperation with the United States. Some also argue that any host nation that could be coerced to restrict U.S. access to bases is an ally simply not worth defending.[120]

7. (A) Current (legacy) U.S. forces will not be able to overcome antiaccess strategies except at high cost.
7. or
7. (B) Techniques of deception or denial of information will remain effective in allowing legacy systems to penetrate future antiaccess efforts.

The debate on the defensibility of overseas bases has a parallel with that on the continuing effectiveness of power-projection forces. Supported by the same data concerning the growing development of antiaccess systems and strategies (consensus point 13), a number of sources suggests that the power-projection forces of the United States--as they are currently constituted--will have increasing difficulty penetrating antiaccess defenses in the 2001-2025 period.

The proponents of this view, however, do not necessarily see these developments as an evolutionary challenge to which the United States can modify and adapt its current forces. Rather they see this as a revolutionary development that is enabled, in part, by foreign adaptation to the RMA. This position leads to the advocacy of radical changes in the U.S. defense posture. Indeed, the perception of the growing strength of antiaccess strategies is a major impetus to calls for defense transformation.

In contrast, there remains a body of literature that characterizes antiaccess strategies as natural aspects of war that require incremental improvements in U.S. power-projection forces, but are not a revolutionary development requiring radical change. This view argues that current developments, particularly in theater missile defense and standoff and precision weapons, allow power-projection capabilities to keep pace with antiaccess systems.[121] The Army vision of a strategically responsive force that is less dependent on

heavy equipment and multiple air- and sea-lifts contributes to the perception that power projection forces may become even more effective in the 2001-2025 period.[122]

8. (A) Nuclear deterrence will remain a vital aspect of security.
8. or
8. (B) Nuclear deterrence will have a smaller role in future security.

Sources are split in their assessment of the importance of nuclear weapons and the validity of traditional nuclear deterrence in the 2001-2015 period. On the one hand are those who see nuclear weapons as decreasingly effective tools in deterring war.[123] On the other are those sources who concede that nuclear weapons may have a different role than at the height of the Cold War, but who argue that they remain the ultimate deterrent, with considerable effect on the actions of even rogue states.[124]

Many who state a moral opposition to nuclear weapons have translated this into forecasts of a globalized world in which nuclear deterrence no longer makes sense. With greater economic interdependence, this argument runs, even the so-called rogue states will be reconciled to the international order, renouncing or reducing their overt or covert nuclear arsenals.

Sources that view future conflict as consisting primarily of brutal civil wars in undeveloped states--along with Western intervention to prevent suffering and injustice--see no utility in nuclear weapons. From a considerably different perspective, some suggest that the RMA has simply passed nuclear weapons by. If information operations will be the dominant form of conflict in an *internetted* world, the use of nuclear weapons would seem merely suicidal. Nuclear effects, such as electromagnetic pulses (EMP), hold the potential of destroying much of the technical access to information on which both war and international society are dependent. Again, there would seem to be no utility in nuclear warfighting, and therefore nuclear deterrence is confined to a background role. Others who focus on the potential for RMA advances to make national missile defenses effective argue that a defense-dominant world will eventually lead to the abolition of nuclear arsenals. Some sources argue that nuclear deterrence has little effect on irrational rogue regimes and terrorist groups, the two types of adversaries most likely to attempt asymmetric attacks on the U.S. homeland.

Others view nuclear weapons as retaining considerable deterrent effect, even on rogue regimes. Since, it is argued, active defenses can never be 100 percent effective, the potential for nuclear destruction will remain. Nuclear deterrence therefore retains a considerable role in protecting the homeland from WMD.[125] A few sources suggest that a world in which there are more nuclear powers is a world in which interstate conflict is much less likely.[126] Peace would be even more dependent on nuclear deterrence than it is today.

Divergence of views on the importance of nuclear deterrence in 2001-2025 seems to presage a continuing debate on that portion of future American defense policy.

9. (A) Conventional military force will not deter terrorism or nonstate threats.
9. or
9. (B) U.S. military capabilities will retain considerable deterrent or coercive effects against terrorism and nonstate threats.

Sources that focus on the increasing vulnerability of the U.S. homeland and on the potential for asymmetric attack tend to doubt the ability of conventional military force to deter such attacks. Many of these sources tend to downplay the role of nuclear weapons and assume that potential opponents would concentrate on developing chemical or biological WMD, rather than expend resources on developing an extensive nuclear arsenal. Biological weapons, in particular, are frequently assumed to be immune to deterrence by conventional military forces, and possibly by nuclear weapons as well.[127] The logic is that opponents who would be so irrational or immoral as to use biological weapons (particularly against civilian populations) would not easily be swayed by the threat of extensive damage to their own people.[128] More importantly, terrorist groups--having no state or population to protect--do not necessarily present the vulnerabilities of a traditional military opponent. If there is an inherent difficulty in determining the actual perpetrators of a biological attack, then there may be no apparent target for conventional (or nuclear) forces to attack.

An opposing viewpoint is that there are always vulnerabilities that can be attacked--even for terrorist groups.[129] Presumably, terrorists act for causes that have overt elements, such as political independence for a certain population. Contrary to the most alarmist speculations, effective terrorist groups tend not to be crazy or self-destructive.[130] Proponents of this position point to the example of the 1986 Eldorado Canyon reprisal on Libya, which appeared to cause Muammar Qaddafi to reduce his support of terrorist activities.[131] With a combination of intelligence, overt reprisal, covert reprisal, effective law enforcement, and some degree of consequence management preparations, it would seem possible that terrorist activities--particularly with weapons as sophisticated as WMD, which are extremely difficult to obtain or to utilize effectively--could be prevented, dissuaded, or deterred.

Conclusion

The nine points of divergence described above are based on differing assumptions concerning the implications of the previously identified consensus points. It is possible for opposing points of view to accept the plausibility of any or all of the consensus points and yet to advocate substantially different defense policies. This allows for the development of baseline expectations that American defense policy will need to fulfill to maintain security in 2001-2025. From this baseline, alternative options for policy can be explored. In developing likely strategy choices for the QDR, the working group incorporated the differing positions on the nine points into the alternative worldviews that drive the choices.

Table 2–3. Consensus Scenario

In 2001–2025, U.S. military forces need to prepare for:

- military challenges by a regional competitor;
- attempts by a regional competitor to attack the U.S. homeland utilizing asymmetrical means;
- use of antiaccess and area denial strategies by regional competitors;
- use of WMD by regional competitors as part of antiaccess operations;
- involvement in failed states and in response to nonstate threats at the discretion of national command authorities (but some degree of involvement is inevitable);
- operations in urban terrain and under "chaotic" conditions (by some, but not all, of the force);
- continual diffusion of military technology to potential competitors and nonstate actors;
- high level of information warfare.

The identification of divergent viewpoints helps to frame the more contentious issues of the defense debate. But, in addition, it suggests that there may be potential developments that future defense policies may need to hedge against. If reputable, well-informed sources differ as to the future impact of chaos and urban warfare, for example, or on the future role of nuclear deterrence, it may be prudent to develop policies that are effective under multiple alternatives. Another element that suggests the need for hedging strategies is the identification of outliers and wildcards.

Constructing a Consensus Scenario

Having identified the points of consensus appropriate for consideration in the QDR 2001 process, the task is to present these findings in a way that is useful for defense planning. Constructing a consensus scenario that identifies a baseline common view of the expected future is a logical starting point. To this baseline can be added the contentious issues and appropriate potential wildcards. The alternative views of the dissenters can then be used as conceptual excursions from the baseline. By means of these excursions, policy decisions based on the consensus scenario can be evaluated in terms of their ability to hedge against alternative futures. Table 2-3 provides the outline for a baseline consensus scenario that incorporates both the points of consensus and common aspects of some of the points of divergence. whe consensus scenario for 2001-2025 can also be presented in narrative form as outlined in the following discussion.

The most critical challenge to the Armed Forces will be readily identifiable military threats by one or more regional competitors. These regional competitors will not have the global power-projection capabilities of the United States and will not be able to mount militarily significant operations outside of their own immediate regions against the Armed Forces. U.S. control of the global commons of sea and international airspace will remain relatively secure.

But, because they cannot compete as a global military peer, regional competitors will seek to increase their chances of success by developing the capabilities to conduct limited attacks on the U.S. homeland and by excluding the military from their immediate region using antiaccess or area denial strategies and systems.

In peacetime, their intent will be to create an appearance that the United States would not have the means or will to prevail in a conflict in their region, thus neutralizing potential allied support for American actions. In wartime, their intent would be more to achieve a political settlement favorable to their objectives than to inflict a decisive military defeat on the Armed Forces. The threat of severe American personnel casualties is increased through the possession and use of WMD against forward-deployed forces and U.S. power-projection forces entering the region, or the allied infrastructure that could support U.S. intervention. It will be increasingly difficult to defend overseas U.S. land bases from mass attacks. The likelihood of WMD use in these circumstances is high, although the weapons used are likely to be chemical or biological rather than nuclear.

WMD attacks would likely be focused on military forces or supporting infrastructure rather than U.S. or allied populations. This will not be the result of moral qualms, but rather an attempt to prevent the equivalent of the Pearl Harbor effect on the United States (or one of its allies) provoked to seek revenge. Another potential aspect of WMD use would be a nuclear-generated electromagnetic pulse (EMP) in an attempt to eliminate the U.S. advantage in ISR command, control, and communications (C^3) systems.

As an adjunct to their antiaccess efforts, and in an attempt to sway U.S. public opinion toward a political settlement, regional competitors would attempt to conduct a high level of information warfare. American public opinion will be seen as a center of gravity. Information warfare--as well as overall antiaccess capabilities--will be facilitated by a continual diffusion of advanced military technologies throughout the world. This diffusion includes access to commercial imagery and communication via space systems.

However, the diffusion of military technology is not likely to cause a reduction in the U.S. advantage in military technology, which derives from overall American economic and technological strengths. It is likely that major technological breakthroughs will occur primarily in the United States or its economically developed allies, generated through commercial efforts. Regional competitors may be able to generate a temporary military advantage in a particular technological niche, but such advantages will not hold for long. Opponents' access to commercial satellite systems is not likely to continue during hostilities against the United States.

Increased military technology will also be sought by potential nonstate adversaries, such as terrorist groups, and in the myriad of civil conflicts erupting in an increasing number of failed states. Military intervention against nonstate actors and in failed states will be expected missions, although not the primary ones, for the Armed Forces. Such interventions or SSCs will continue

to remain discretionary, and different U.S. administrations may choose differing levels of involvement. However, some level of involvement appears inevitable. As part of these interventions (and possibly as part of a regional war), some portion of the U.S. military will be expected to conduct operations in urban terrain and under chaotic conditions.

The Armed Forces will be expected to utilize available assets in humanitarian assistance and in support for domestic civil authorities. Likewise, homeland defense--in response to asymmetric threats--will be an expanding mission. Evolving challenges in homeland defense will include the possibilities of limited ballistic missile attacks by rogue states and the potential use of chemical or biological weapons by terrorists. However, the majority of the U.S. military will be required to remain organized to conduct power-projection operations during regional conflicts, a posture conceptually similar to today.

Events to Hedge Against

In addition to the use of the consensus scenario as a planning tool, there are a number of wildcards or unlikely events that a prudent defense plan would consider as potential contingencies. Wildcards can be defined as risks to national security that, by their very nature, cannot be predicted or fully anticipated.[132] However, the effects of some wildcards could be so devastating to American security that their consideration in creating hedging strategies is of vital importance.[133] These include an eventual military near-peer competitor; an alliance of regional competitors; attempts to leap-frog into space warfare; collapse of key ally or regional support; and a trend toward a world of warriors.

This list is based on both a review of the points of divergence and an examination of wildcards identified during the survey of sources. Some appeared inappropriate for defense planning and are not included in the five events identified above.[134] The five events selected have three features in common: they are events for which preparations in military planning or force structure are practicable; if they occurred, then their effects would be magnified by the expected trends identified by the consensus security environment; and they hold the potential to create significant danger for the United States.

A hedge against an unexpected event could take two forms: Contingency plans could be developed and a select group of resources could be maintained in reserve in order to carry out the plans; or highly adaptive systems could be developed to operate under unexpected conditions as well as to perform optimally in anticipated missions.

Conclusion

The debates that defense reviews engender are always messy. The media make quite a sport of pointing out the conceptual disunity and lack of jointness among the "squabbling" armed services. Rarely mentioned is the fact that defense policy in a democracy was meant to be contentious and inefficient. To debate up until the very moment the guns sound was always considered a healthy thing. This is in clear contrast to the policies and procedures of authoritarian regimes. For example, Chinese Communist Party Chairman Deng Xiaoping admonished his political and military strategists: "Don't debate. . . . Once debate gets started, things become complicated." [135] But powerful militaries that do not debate, such as the German *Wehrmacht* or the Soviet armed forces, seem to end up on the wrong side of history.

Americans like debate, and we generally view the future as complicated, even if we would like to be able predict it. QDR 2001 will also be complicated, as will any subsequent review. But one of the ways we can begin cutting through the complications and getting to the issues worthy of debate is to start from a consensus view of the characteristics we expect in the future security environment.

Appendix: Primary Sources Surveyed

The underlying objective of the selection process for the primary sources was to collect material that generally represents viewpoints from the range of different types of organizations (and, by extension, individuals) that influence defense planning in the United States. A working assumption was that a representative view could be identified for the following types of organizations: Congress (in the form of congressionally-mandated reviews); the White House; intelligence community; Office of the Secretary of Defense (OSD); Joint Chiefs of Staff and unified commanders in chief (CINCs) of combatant forces; war colleges; individual services (Army, Navy, Marine Corps, Air Force); federally-funded research institutes; independent research institutes; NGOs; independent or ad hoc citizen commissions; private consultants; political opposition; and a range of independent scholars whose work influences the defense debate. After prospective sources were identified for the above organizational categories, the following standardized criteria were used to determine whether the source constituted an assessment of the future security environment suitable for detailed analysis. In accordance with the criteria, a primary source should:

- focus on the overall future security environment, not just the individual drivers (such as population growth, availability of resources, etc.) of future trends;

- examine multiple subjects affecting the future security environment;

- be potentially representative of the collective views of an organization influential in national defense policymaking;

- be produced by a source with a solid professional or scholarly reputation;

- have been published since 1996; and

- if a U.S. government product, be unclassified or provide analysis of the future security environment in unclassified sections.

Based on these criteria, at least one source per category was selected; in certain cases, multiple sources were deemed necessary to provide for the representative view. Representative views of the future are not necessarily the official view of the organization concerned.

Some studies published in 1996 might not have achieved wide circulation by the May 1997 completion of the QDR 1997, hence the inclusion of that year. Two 1995 studies were included because they represent organizations that did not sponsor a later study on the future security environment.

Congressionally-Mandated Reviews

Department of Defense, *Report of the Quadrennial Defense Review,* May 1997.

National Defense Panel, *Transforming Defense: National Security in the 21st Century,* December 1997.

U. S. Commission on National Security/21st Century, *New World Coming: Studies and Analyses,* September 15, 1999.

White House/National Security Council

The White House, *A National Security Strategy for a New Century,* October 1998.

The White House, *A National Security Strategy for a New Century,* December 1999.

Intelligence Community

National Intelligence Council, *Global Trends 2010* (Washington, DC: November 1997).

Working papers, briefing materials and notes from "Alternative Global Futures: 2000-2015" workshops held September, October, and December 1999. (Global Trends 2015 project is still ongoing. Background and briefing

material and discussion notes were used for the survey.)

Defense Intelligence Agency, *Alternative Futures in International Security Affairs, 2015: A Summary Study of the "Transformed World, 2015" Project,* December 1997. (Unclassified section; classified material from this project was not used by this survey.)

Office of the Secretary of Defense

Department of Defense, "The Projected Security Environment," from *Defense Planning Guidance Update for Fiscal Years 2001-2005* (Washington, DC: April 1999), 4-7. (Unclassified section; classified material from this project was not used by this survey.)

Under Secretary of Defense (Policy), 1999 Summer Study Final Report, *Asia 2025* (assembled briefing slides and text), Newport, RI: July 25-August 4, 1999; and Under Secretary of Defense (Policy), 1999 Summer Study Final Report, *Maintaining U.S. Military Superiority* (assembled briefing slides and text), Newport, RI: July 25-August 4, 1999. (Unclassified section; classified material from this project was not used by this survey.)

Joint Chiefs of Staff/Unified CINCs

Joint Staff, *Joint Strategy Review 1998 Report* (September 4, 1998). (Unclassified section; classified material from this project was not used by this survey.)

Joint Forces Command (J-9), "Futures Program" briefing slides, notes, and handouts, November 1998-September 1999.

National Defense University

Patrick M. Cronin, ed., *2015: Power and Progress* (Washington, DC: National Defense University Press, July 1996).

Institute for National Strategic Studies, *Strategic Assessment 1998: Engaging Power for Peace* (Washington, DC: National Defense University Press, 1998).

Institute for National Strategic Studies, *Strategic Assessment 1999: Priorities for a Turbulent World* (Washington, DC: National Defense University Press, 1999).

U.S. Air Force

Colonel Joseph A. Engelbrecht, Jr., et al., *Alternative Futures for 2025: Security Planning to Avoid Surprise* (Maxwell AFB, AL: Air University Press, September 1996).

U.S. Army

Series of briefing slides and notes on the "Future Military Art" (1998-99).

William T. Johnsen, *Force Planning Considerations for Army XXI* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, February 18, 1998).

Earl H. Tilford, Jr., ed., *World View: The 1998 Strategic Assessment From the Strategic Studies Institute* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, February 26, 1998).

U.S. Navy

CNO Strategic Studies Group XIV, *The International Security Environment to the Year 2005,* study group final report (Newport, RI: June 1995).

Richard Danzig, *The Big Three: Our Greatest Security Risks and How to Address Them* (New York: Center for International Political Economy, February 1999).

U.S. Marine Corps

"Ne Cras: Not Like Yesterday," commandant's briefing, slides, and notes (numerous presentations, 1997-1999).

Charles C. Krulak, "The Three Block War: Fighting in Urban Areas," speech presented at National Press Club, Washington, DC, October 10, 1997, published in *Vital Speeches of the Day,* December 15, 1997, 139-141.

Federally-Funded Research Institutes

Zalmay M. Khalilzad and Ian O. Lesser, eds., *Sources of Conflict in the 21st Century: Regional Futures and U.S. Strategy* (Santa Monica, CA: RAND, 1998) (produced for U.S. Air Force).

Frederick Thompson et al., *Vision-21 Source Book, Volume 1: The Process* (Alexandria, VA: Center for Naval Analyses, November 26, 1996) (produced

for the U.S. Marine Corps).

Independent Research Institutes

Andrew F. Krepinevich, Jr., *The Conflict Environment of 2016: A Scenario-Based Approach* (Washington, DC: Center for Strategic and Budgetary Assessments, October 1996).

Jacquelyn K. Davis and Michael J. Sweeney, *Strategic Paradigm 2025: U.S. Security Planning for a New Era* (Dulles, VA: Brassey's, 1999).

Nongovernmental Organizations

Allen Hammond, *Which World?: Scenarios for the 21st Century* (Washington, DC: Island Press, 1998).

Edmund Cairns, *A Safer Future: Reducing the Human Cost of War* (Oxford, UK: Oxfam Publications, 1997).

Michael Marien, ed., *World Futures and the United Nations* (Bethesda, MD: World Futures Society, 1995).

Independent Commission

Graham T. Allison and Robert D. Blackwill, lead authors, *America's National Interests* (The Commission on America's National Interests, July 2000).

Private Consultant (For-Profit)

"Decade Forecast--Decade Through 2005," December 24, 1994 (website <stratfor.com>) and "Decade Forecast--2000-2010," December 20, 1999 (website <stratfor.com>). (1994 forecast included, with 1999 as background reference.)

Political Candidate

Governor George W. Bush: "A Period of Consequences," speech delivered at The Citadel, Charleston, SC, September 23, 1999 (text from website <http://www.georgewbush.com/News/speeches/092399_consequences.html>).

Individual Scholars and Projects

Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (New York: HarperCollins, 1999).

Ashton B. Carter and William J. Perry, *Preventive Defense: A New National Security Strategy for America* (Washington, DC: Brookings Institution, March 1999).

Ralph Peters, *Fighting for the Future: Will America Triumph* (Mechanicsburg, PA: Stackpole Books, 1999).

Donald M. Snow, *The Shape of the Future: World Politics in a New Century,* 3^d ed. (Armonk, NY: M.E. Sharpe, 1999).

Notes

[1]This chapter summarizes the details contained in Sam J. Tangredi, *All Possible Wars? Toward A Consensus View of the Future Security Environment, 2001-2025,* McNair Paper 63 (Washington, DC: National Defense University, 2000). [BACK]

[2]The future security environment for QDR 1997 was primarily derived from classified intelligence estimates and the unclassified work of two primary sources: the Global Trends 2010 project of the National Intelligence Council and assessments by the Institute for National Strategic Studies, National Defense University. This chapter proposes a more inclusive input. [BACK]

[3]United States Commission on National Security/21st Century, Philip L. Ritcheson, primary author, "Study Addendum" to *New World Coming* (published on website only; not released with report text), September 15, 1999, 10-11. [BACK]

[4]These standardized criteria are discussed in the appendix to this chapter and detailed in Tangredi, *All Possible Wars?* 8-9. [BACK]

[5]The 300 secondary sources are listed in Appendix B (161-183) of Tangredi, *All Possible Wars?* [BACK]

[6]A detailed evaluation of these strengths and weaknesses can be found in Tangredi, *All Possible Wars?* 15-20. [BACK]

[7]Perhaps the most telling historical example of unwarranted belief in certainty was the British Cabinet's "Ten-Year Rule" used between the First and Second World Wars. See Brian Bond and Williamson Murray, "The British Armed Forces, 1918-39," in Allen R. Millet and Williamson Murray, eds., *Military Effectiveness,* Volume II: *The Interwar Period* (Boston: Allen and Unwin, 1988), 101. [BACK]

[8]See Tangredi, *All Possible Wars?* 21-29. [BACK]

[9]The term "prominent dissenters" here refers to analytical, political, or scholarly sources that we deemed likely to have an effect on U.S. defense policy: generally authorities used by DOD for analysis, or who have a track record of influencing the thinking of government decisionmakers. [BACK]

[10]A succinct statement of this argument can be found in Donald M. Snow, *The Shape of the Future: World Politics in a New Century,* 3d ed. (Armonk, NY: M.E. Sharpe, 1999), 128-130. [BACK]

[11]Jacquelyn K. Davis and Michael J. Sweeney, *Strategic Paradigm 2025: U.S. Security Planning for a New Era* (Dulles, VA: Brassey's, 1999), 14-15. [BACK]

[12]A number of previously enthusiastic authorities on the post-Cold War expansionism of democratic values now suggest that exponential growth in democracies may be over. See, for example, Larry Diamond, "Is the Third Wave Over?" *Journal of Democracy* 7, no. 3 (July 1996), 20-37. [BACK]

[13]See, for example, Ralph Peters, "Our Old New Enemies," in Lloyd J. Matthews, *Challenging the United States Symmetrically and Asymmetrically: Can America Be Defeated?* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, July 1998), 215-238; Robin Wright, "Democracy: Challenges and Innovations in the 1990s," *The Washington Quarterly* 20, no. 3 (Summer 1997), 23-36. *The National Security Strategy For A New Century* (October 1998 version) suggests that "if citizens tire of waiting for democracy and free markets to deliver a better life for them, there is real risk that they will lose confidence in democracy and free markets"; iv. [BACK]

[14]Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon and Schuster, 1996); Samuel P. Huntington, "The Clash of Civilizations?" *Foreign Affairs* 72, no. 3 (Summer 1993), 22-49. [BACK]

[15]However, other sources--including Middle East regional specialists--tend to agree that, "like their secular counterparts, on most issues many [Islamic-oriented political actors] would operate on the basis of national interests and demonstrate a flexibility that reflects acceptance of the realities of a globally interdependent world." Even some who acknowledge the potentially destabilizing effect of Islamic fundamentalism argue that fundamentalism is now waning. See John L. Esposito, "The Islamic Factor," in Phebe Marr, ed., *Egypt at the Crossroads: Domestic Stability and Regional Role* (Washington, DC: National Defense University Press, 1999), 61-62; Max Rodenbeck, "Is Islamism Losing Its Thunder?" *The Washington Quarterly* 21, no. 2 (Spring 1998), 177-194. [BACK]

[16]See <www.stratfor.com>, "Global Intelligence Update--5 June 2000; Retrieving the Irretrievable: The Clinton Foreign Policy Legacy," June 4, 2000. [BACK]

[17]However, there are discussions of how an independent European military structure could balance American power. See, for example, Jean-Marie Guehenno, "The Impact of Globalisation on Strategy," *Survival* 40, no. 4 (Winter 1998-99), 16-18; Frederick Bonnart, "U.S. Starts to Fret Over EU Military Independence," *International Herald Tribune,* May 24, 2000. [BACK]

[18]Davis and Sweeney, *Strategic Paradigm 2025,* 226. "Chinese opposition to the United States is not the result of current trends in Sino-U.S. relations. . . [but] developed following a series of poor policy choices by both Beijing and Washington that have moved them into a more antagonistic posture than either state had intended." [BACK]

[19]Others suggest that the PRC is more likely to employ a massive military strike without warning against Taiwan, spearheaded by ballistic missile attack. See, for example, Robert Kagan, "How China Will Take Taiwan," *The Washington Post,* March 12, 2000, B7; and Gary Schmitt and Thomas Donnelly, "Our Interests Lie With Theirs," *The Washington Post,* April 23, 2000, B4. [BACK]

[20]Davis and Sweeney, *Strategic Paradigm 2025,* 238. [BACK]

[21]Henry Chu and Richard C. Paddock, "Russia Looks to China as an Ally Amid West's Ire," *Los Angeles Times,* December 8, 1999, 1. Rajan Menon describes Russian-Chinese rapprochement as a "strategic convergence" directed against the United States rather than based on any mutual "trust or goodwill." Menon, "The Strategic Convergence Between Russia and China," *Survival* 39, no. 2 (Summer 1997), 101-125. [BACK]

[22]<www.stratfor.com>, "Herding Pariahs: Russia's Dangerous Game," Stratfor.com, *Weekly Global Intelligence Update,* February 8, 2000. [BACK]

[23]Agence France-Presse in Beijing, "Alliances Can Defuse Hegemonism by U.S.," *South China Morning Post,* March 8, 2000. Arguing that an effective alliance is unlikely is Jennifer Anderson, *The Limits of Sino-Russian Strategic Partnership,* International Institute for Strategic Studies, Adelphi Paper 315 (New York: Oxford University Press, December 1997). See also Norman Friedman, "The China Puzzle Continues to Baffle the West," *U.S. Naval Institute Proceedings* 126, no. 3 (March 2000), 4-6.

[BACK]

[24]The QDR 1997 report used the analogy of the Soviet Union in the Cold War, stating that "the security environment between now and 2015 will also be marked with the absence of a 'global peer competitor' able to challenge the United States militarily around the world as the Soviet Union did during the Cold War." Department of Defense, *Report of the Quadrennial Defense Review,* May 1997, 5. [BACK]

[25]Ibid. [BACK]

[26]A recent essay on the linkage between economic and military competition with China is Dana Rohrabacher, "Q: Should Congress be concerned about China and the Panama Canal?" *Insight on the News,* December 27, 1999, 40. A discussion on American fears of a competition with the EU can be found in William Wallace and Jan Zielonka, "Misunderstanding Europe," *Foreign Affairs* 77, no. 6 (November-December 1998), 65-79. [BACK]

[27]See C. Fred Bergsten and Marcus Nolan, *Reconcilable Differences?: United States-Japan Economic Conflict* (Washington, DC: Institute for International Economics, June 1993). A review of recent sources on U.S.-Japanese security arrangements is Chris B. Johnstone, "Redefining the U.S.-Japan Alliance," *Survival* 42, no. 1 (Spring 2000), 173-181. [BACK]

[28]See Thomas L. Friedman, *The Lexus and the Olive Tree: Understanding Globalization* (New York: Farrar, Straus and Giroux, 1999); Davis and Sweeney, *Strategic Paradigm,* 14-15. [BACK]

[29]<www.stratfor.com>, "Decade Forecast--Decade Through 2005," December 24, 1994, 1. [BACK]

[30]QDR 1997, 3. [BACK]

[31]Current major theater war (MTW) planning focuses on Iraq, rather than Iran. However, the two contingencies are often linked when addressing American foreign policy objectives in the Gulf region. "This approach is consistent with the dual containment policy of the United States, which treats Iran and Iraq as twin pariahs. Although both reject being classified as a pair, American policy groups them together." Raymond Tanter, *Rogue Regimes: Terrorism and Proliferation* (New York: St. Martin's Press, 1998), xiii. [BACK]

[32]National Intelligence Council (NIC), *Global Trends 2010,* argues that internal contradictions in both states would prevent such dominance in the near term. See 8-10. *New World Coming* states that "Major powers--Russian and China are two obvious examples--may wish to extend their regional influence by force or the threat of force." United States Commission on National Security/21st Century (USCNS/21), *New World Coming,* 47. [BACK]

[33]Rogue states are generally "those states that support aggression and terrorism. A rogue state is an outlaw country capable of instigating conflict with the United States and its allies." NDU INSS, *Strategic Assessment 1999,* 3. Raymond Tanter identifies the "primary criteria" of rogue status as "large conventional forces, [support for] international terrorism, and [desire to possess] weapons of mass destruction. Tanter, *Rogue Regimes,* 261, note 1. Five states are usually included in intelligence assessments as rogues: North Korea, Iraq, Iran, Syria, and Libya. Tanter includes Cuba under the category of rogue regimes because it appears to support international terrorism. Sudan, which is also considered a rogue because of its support for terrorism, generally is not included in the list because it is thought to be a client state of another rogue--Iran--and does not possess large conventional forces. On June 19, 2000, Secretary of State Madeleine K. Albright announced that the Clinton administration would no longer use the term "rogue states," but that "henceforth nasty, untrustworthy, missile-equipped countries would be known as states of concern." This would appear to be a reaction to a recent meeting of the South and North Korean heads of state. See Steven Mufson, "What's In A Name? U.S. Drops Term 'Rogue State'," *The Washington Post,* June 20, 2000, 16. However, the term is ubiquitous within the analytical literature, and therefore has been retained in this chapter. [BACK]

[34]There is a wealth of published recommendations in this regard. Prominent among them is Ashton B. Carter and William J. Perry, *Preventive Defense: A New National Security Strategy for America* (Washington, DC: Brookings Institution, March 1999), which discusses the immediate need for engagement of both Russia and China. [BACK]

[35]A particularly witty treatment of this argument is Hank H. Gaffney, "Oh, to be weak" (unpublished paper circulated in 1998; available from author at Center for Naval Analyses). [BACK]

[36]One argument for intervention to prevent massive but not normal levels of war-related deaths can be found in Stephen J. Solarz and Michael E. O'Hanlon, "Humanitarian Intervention: When is Force Justified?" *The Washington Quarterly* 20, no. 4 (Autumn 1997), 3-14. [BACK]

[37]Arguing that the cumulative effect of failed states is a significant international security threat is Susan L. Woodward, "Failed States: Warlordism and 'Tribal Warfare,'" *Naval War College Review* 52, no. 2 (Spring 1999), 55-68. [BACK]

[38]*New World Coming,* 96-99. Several nongovernmental organizations (NGOs) claim that pessimistic forecasts for Africa discourage investment, therefore perpetuating instability. The implication is that they should be balanced by more optimistic assessments. See, for example, Peter Veit, ed., *Africa's Valuable Assets: A Reader in Natural Resource Management* (Washington, DC: World Resources Institute, 1998). [BACK]

[39]Snow, *The Shape of the Future,* 170-172. [BACK]

[40]See James F. Miskel, "Are We Learning the Right Lessons from Africa's Humanitarian Crises?" *Naval War College Review* 52, no. 3 (Summer 1999), 136-147. [BACK]

[41]But see Martin Van Creveld, *The Rise and Decline of the State* (Cambridge, UK: Cambridge University Press, 1999), 336-421. [BACK]

[42]An argument that "super-terrorism" is unlikely and that measures taken to prevent it may be counterproductive is Ehud Sprinzak, "The Great Superterrorism Scare," *Foreign Policy,* no. 112 (Fall 1998), 110-119. [BACK]

[43]Zachary S. Davis, *Weapons of Mass Destruction: New Terrorist Threat?* CRS Report to Congress 97-75 ENR (Washington, DC: Congressional Research Service, January 8, 1997); Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction, First Annual Report: *Assessing the Threat* (Washington, DC: RAND, December 15, 1999). A list of current sources on the topic of catastrophic terrorism can be found in USCNS/21, *New World Coming,* as footnote 95, 48. [BACK]

[44]A number of sources identify information operations or information warfare as "weapons of mass destruction." The logic of this argument is that death and destruction on a large scale can occur by attacks on the computer networks controlling public utilities and transportation. However, these sources do not convincingly demonstrate that such attacks would result in casualties as extensive as from a successful nuclear or biological attack. In *New World Coming,* the more realistic term "weapons of mass disruption" is used (52). [BACK]

[45]USCNS/21, *New World Coming*, 51. See also INSS, *Strategic Assessment 1999,* 293-294. [BACK]

[46]On this point, *New World Coming* cites Roger C. Molander, David A. Mussington, and Richard F. Mesic, *Strategic Information Warfare Rising* (Washington, DC: RAND, 1998) as its source. [BACK]

[47]See Joseph A. Engelbrecht, Jr., et al., *Alternative Futures for 2025* (Maxwell Air Force Base, AL: Air University Press, 1996), 49-53, 150, 169; Lieutenant Colonel Larry K. Grundhauser, USAF, "Sentinels Rising: Commercial High-Resolution Satellite Imagery and Its Implications for U.S. National Security," *Airpower Journal* 12, no. 4 (Winter 1998), 74-76; Frederick W. Kagan, "Star Wars in Real Life: Political Limitations on Space Warfare," *Parameters* 28, no. 3 (Autumn 1998), 117-118. [BACK]

[48]Eliot A. Cohen, "A Revolution in Warfare," *Foreign Affairs* 75, no. 2 (March/April 1996); James R. FitzSimonds and Jan M. van Tol, "Revolutions in Military Affairs," *Joint Force Quarterly* 4 (Spring 1994), 24-31; and Andrew F. Krepinevich, Jr., "Cavalry to Computer: The Patterns of Military Revolutions," *The National Interest* 37 (Fall 1994), 30-42. A more skeptical discussion is Michael E. O'Hanlon, "Can High Technology Bring U.S. Troops Home?" *Foreign Policy* 113 (Winter 1998-99), 72-86; and O'Hanlon, *Technological Change and the Future of Warfare* (Washington, DC: Brookings Institution, 2000). [BACK]

[49]One of the more enthusiastic advocates of pursuing the RMA is Admiral William A. Owens. See William A. Owens with Ed Offley, *Lifting the Fog of War* (New York: Farrar, Straus and Giroux, 2000),

especially chapter 6, "Winning the Revolution." [BACK]

[50]See Earl H. Tilford, Jr., *The Revolution in Military Affairs: Prospects and Cautions* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, June 23, 1995); Kenneth F. McKenzie, Jr., "Beyond Luddites and Magicians: Examining the MTR," *Parameters* 25, no. 2 (Summer 1995), 15-21. [BACK]

[51]"Only one country--the United States--currently has capabilities in all [RMA] areas, thereby indicating its centrality in any discussion of the RMA." Andrew Richter, "The American Revolution? The Response of the Advanced Western States to the Revolution in Military Affairs," *National Security Studies Quarterly* 5, no. 4 (Autumn 1999), 3. [BACK]

[52]Engelbrecht et al., *Alternative Futures for 2025,* 171-172.[BACK]

[53]USCNS/21, *New World Coming,* 120. [BACK]

[54]Michael Dorgan, "Few surprised at firing of Los Alamos Scientist: Tip of Iceberg seen on Chinese spying," *Arizona Republic* March 14, 1999, A17; Fox Butterworth and Joseph Kahn, "Chinese Intellectuals in U.S. Say Spying Case Unfairly Cast Doubts on Their Loyalties," *The New York Times,* May 16, 1999, 1, 32; David Talbot and Ed Hayward, "Students say focus is studies, not spying," *Boston Herald,* May 26, 1999, 030. [BACK]

[55]For example: Andrew F. Krepinevich, Jr., "Military Experimentation--Time to Get Serious," <www.csbahome.org>, March 3, 2000. [BACK]

[56]Andrew F. Krepinevich, Jr., *Restructuring for a New Era: Framing the Roles and Missions Debate* (Washington, DC: Defense Budget Project, April 1995), 44-47; Krepinevich, "Cavalry to Computers: The Pattern of Military Revolutions," 37. [BACK]

[57]"At present, the vast majority of countries in the developing world appear totally unprepared to adapt to the RMA, and thus any study that focused on them would, by definition, be brief." Richter, "The American Revolution," 1. [BACK]

[58]Among future studies devoted specifically to potential wildcards is John L. Petersen, *Out of the Blue: Wild Cards and Other Big Future Surprises* (Washington, DC: Arlington Institute, 1997). [BACK]

[59]Jan S. Breemer refers to this circumstance as "the end of naval strategy," implying that U.S. forces can focus on directly influencing effects on land. Jim Wirtz refers to it as "the golden age of United States seapower." See Breemer, "The End of Naval Strategy: Revolutionary Change and the Future of American Naval Power," *Strategic Review* 22, no. 2 (Spring 1994), 40-53; Wirtz, "QDR 2001: The Navy and the Revolution in Military Affairs," *National Security Studies Quarterly* 5, no. 4 (Autumn 1999), 43-60. [BACK]

[60]It is likely that some competitors will seek to build or to purchase fourth-generation platforms and the most modern ocean-going warships in relatively small numbers to dominate regional opponents. If used in actual combat operations directly against the U.S. naval and air fleets, it is likely that they would operate as a high-tech guerrilla force, attacking areas of perceived weakness until they were destroyed or securely hidden from U.S. response. [BACK]

[61]Illustrative of this argument is John A. Tipak, "Can the Fighter Force Hold Its Edge?" *Air Force Magazine* 83, no. 1 (January 2000), 25-31. [BACK]

[62]Martin Van Creveld maintains that the warmaking abilities of the modern state will continue to weaken, ensuring that large-scale clashes of sea or air power will not occur. In a sense, his overall argument implies that all states will become failing states. Martin Van Creveld, *The Rise and Decline of the State* (Cambridge, UK: Cambridge University Press, 1999), 337-354, 419. [BACK]

[63]Arguing that "increasingly, other countries strategies will be oriented around keeping the U.S. out of their region" is Under Secretary of Defense (Policy) 1999 Summer Study Final Report, *Maintaining U.S. Military Superiority* (assembled briefing slides and text), Newport, RI, July 25-August 4, 1999; quotation, 19. [BACK]

[64]WMD can be considered asymmetric because the U.S. Navy is largely configured for open-ocean

operations. An excellent study of the historical and environmental factors influencing near-shore naval operations is Milan N. Vego, *Naval Strategy and Operations in Narrow Seas* (Portland, OR: Frank Cass Publishers, 1999). [BACK]

[65]A skeptical view of the ballistic missile threat to CONUS can be found in "NMD: The Hard Sell," *Jane's Defence Weekly* 33, no. 11 (March 15, 2000), 19-23. [BACK]

[66]See discussion in Kenneth F. McKenzie, Jr., *Revenge of the Melians: Asymmetric Threats and the QDR,* McNair Paper 62 (Washington, DC: National Defense University Press, 2000), 8-10. [BACK]

[67]See discussion in Thomas G. Mahnken, "America's Next War," *The Washington Quarterly* 16, no. 3 (Summer 1993), 171-184. [BACK]

[68]A typology of antiaccess strategies that could be used against power-projection forces can be found in McKenzie, *Revenge of the Melians,* 46-52. [BACK]

[69]See James R. Boorujy, "Network-Centric Concepts Can Guarantee Access," *U.S. Naval Institute Proceedings* 126, no. 5 (May 2000), 60-63; Gary W. Schnurrpusch, "Asian Crisis Spurs TBMD," *U.S. Naval Institute Proceedings* 125, no. 9 (September 1999), 46-49. [BACK]

[70]See Sam J. Tangredi, "The Fall and Rise of Naval Forward Presence," *U.S. Naval Institute Proceedings* 126, no. 5 (May 2000), 28-32. [BACK]

[71]John P. Jumper has said, "Access is an issue until you begin to involve the vital interests of the nation that you want and need as a host. Then access is rarely an issue." Jumper quoted in "The Access Issue," *Air Force Magazine* 81, no. 10 (October 1998), 42-46. See also "Operating Abroad," *Air Force Magazine* 81, no. 12 (December 1998), 28-29. [BACK]

[72]Robert W. Chandler with John R. Backschies, *The New Face of War: Weapons of Mass Destruction and the Revitalization of America's Transoceanic Military Strategy* (McLean, VA: AMCODA Press, 1998), 199-223; Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War,* Volume IV: *The Gulf War* (Boulder, CO: Westview Press, 1996), 879-915. [BACK]

[73]"Given the West's still-sizable nuclear arsenal and its relatively robust capability to deal with other-than-nuclear WMD warfare, are WMD really asymmetrical to the West? So long as the West maintains its current capabilities, it seems rather unlikely that an adversary could decisively employ WMD against it." Charles J. Dunlap, Jr., "Preliminary Observations: Asymmetrical Warfare and the Western Mindset," in Matthews, *Challenging the United States Symmetrically and Asymmetrically,* 5. [BACK]

[74]Robert Kupperman and David W. Siegrist, "Strategic Firepower in the Hands of Many?" in David W. Siegrist and Janice M. Graham, *Countering Biological Terrorism in the U.S.: An Understanding of Issues and Status* (Dobbs Ferry, NY: Oceana Publications, 1999), 49. [BACK]

[75]Richard Danzig, *The Big Three: Our Greatest Security Risks and How to Address Them* (Washington, DC: National Defense University Press, 1999), 32-34. [BACK]

[76]Based on historical survey, Stuart D. Landersman maintains that "Chemical warfare is employed [only] when there is no chance of reciprocal use." Landersman, "Sulfur, Serpents, and Sarin," *U.S. Naval Institute Proceedings* 124, no. 8 (August 1998), 42-43. [BACK]

[77]USCNS/21, *New World Coming,* 141. [BACK]

[78]Khalilzad and Lesser, *Sources of Conflict in the 21st Century,* 18-19. [BACK]

[79]McKenzie, *Revenge of the Melians*, 3-4, 10-12; USCNS/21, *New World Coming,* 49-50. [BACK]

[80]National Defense Panel, *Transforming Defense: National Security in the 21st Century,* December 1997, 25. Representative arguments include Chandler with Backschies, *The New Face of War,* 177-194; Raymond S. Sheldon, "No Democracy Can Feel Secure," *U.S. Naval Institute Proceedings* 124, no. 8 (August 1998), 39-44. [BACK]

[81]NDP, *Transforming Defense,* 26-27. [BACK]

[82]See F.G. Hoffman, "Countering Catastrophic Terrorism," *Strategic Review* (Winter 2000), 55-57. [BACK]

[83]See Steve Goldstein, "Pentagon Planners Gird For Cyber Assault," *Philadelphia Inquirer,* December 1, 1999, 1; and Robert E. Podlesny, "Infrastructure Networks Are Key Vulnerabilities," *U.S. Naval Institute Proceedings* 125, no. 2 (February 1999), 51-53. [BACK]

[84]A North Vietnamese commander is quoted as saying: "The conscience of America was part of its war-making capability, and we were turning that power in our favor. America lost because of its democracy; through dissent and protest it lost the ability to mobilize a will to win." From "How North Vietnam Won the War," *Wall Street Journal,* August 3, 1995, A8. For a discussion of potential future effects, see Brent Baker, "War and Peace in a Virtual World," *U.S. Naval Institute Proceedings* 123, no. 4 (April 1997), 36-40; and Michael Ignatieff, *Virtual War: Kosovo and Beyond* (New York: Metropolitan Books/Henry Holt, 2000), 191-196. [BACK]

[85]Robert Callum, "Will Our Forces Match the Threat?" *U.S. Naval Institute Proceedings* 124, no. 8 (August 1998), 51-52. E. Anders Eriksson argues that "the cyber WMD problem is likely to be transitional in the sense that as information technology matures, defense will outweigh offense." Eriksson, "Information Warfare: Hype or Reality?" *The Nonproliferation Review* (Spring-Summer 1999), 58. [BACK]

[86]<www.stratfor.com>, "'I Love You' and the Problem of Cyberforce," May 15, 2000, 3. [BACK]

[87]William E. Pohde, "What is Information Warfare?" *U.S. Naval Institute Proceedings* 122, no. 2 (February 1996), 36-38. [BACK]

[88]"Information superiority" is the term used in the 1997 National Military Strategy and *Joint Vision 2010* to indicate "the capability to collect, process, and disseminate an uninterrupted flow of precise and reliable information, while exploiting or denying an adversary's ability to do the same." National Military Strategy, 18. "Knowledge superiority" was used in a U.S. Navy briefing to describe the objective of developing network-centric warfare capabilities. [BACK]

[89]Air Force Doctrine Document 2-5, *Information Operations* (August 5, 1998), i. [BACK]

[90]See, for example, Owens, *Lifting the Fog of War.* [BACK]

[91]Secretary of the Air Force F. Whitten Peters: "I think everyone has agreed that what we did in Kosovo was equivalent to a single Major Theater War." "Whit Peters on the Issues," *Air Force Magazine* 82, no. 10 (October 1999), 47. [BACK]

[92]See Ralph Peters, *Fighting for the Future: Will America Triumph?* (Mechanicsburg, PA: Stackpole Books, 1999), 32-47; Caroline Davies, "Drinks, drugs, and terror-cocktail that turns boys into killers: Using children in combat has reached a horrifying scale in Africa," *The Daily Telegraph* (London), May 25, 2000, 4. [BACK]

[93]"In our lifetimes, this morally savage, unruly killer, not the trained, disciplined soldier, will be the type of enemy most frequently encountered by Euro-American militaries." Peters, *Fighting for the Future,* 48. [BACK]

[94]Testimony to the growing brutality of modern war comes from NGOs and relief agencies. Edmund Cairns, *A Safer Future: Reducing the Human Cost of War* (Oxford, UK: Oxfam Publications, 1997), has sketched a future in which the majority of wars--fought primarily in the developing world--will focus on the civilian as target, will flout the existing laws of war, and will be fought over the distribution of resources within or between states. [BACK]

[95]"The U.S. Army will fight warriors far more often than it fights soldiers in the future." Peters, *Fighting for the Future,* 44. [BACK]

[96]Ignatieff, *Virtual War,* 210-212. [BACK]

[97]See Don Stauffer, "Electronic Warfare: Battles Without Bloodshed," *The Futurist* 34, no. 1 (January-February 2000), 23-26. [BACK]

[98]USCNS/21, *New World Coming,* 143. [BACK]

[99]See discussion in Anthony C. Zinni, "A Commander Reflects," *U.S. Naval Institute Proceedings* 126, no. 7 (July 2000), 34-36. [BACK]

[100]Other sources include Robert F. Hahn II and Bonnie Jezior, "Urban Warfare and the Urban Warfighter of 2025," *Parameters* 29, no. 2 (Summer 1999), 74-86. [BACK]

[101]The term "chaos in the littorals" is adopted from a joint U.S. Naval Institute-Armed Forces Communications and Electronics Association conference of that title held at San Diego on February 10-11, 2000. [BACK]

[102]Danzig, *The Big Three,* 42-49. [BACK]

[103]Danzig, *The Big Three,* 40-42. [BACK]

[104]Craig Covault, "Desert Storm Reinforces Military Space Direction," *Aviation Week and Space Technology,* April 8, 1991, 42; Steven J. Bruger, "Not Ready for the First Space War: What about the Second?" *Naval War College Review* 48, no. 1 (Winter 1995), 73-83. [BACK]

[105]William L. Spacey II, *Does the United States Need Space-Based Weapons?* Cadre Paper 4 (Maxwell AFB, AL: Air University Press, September 1999), 1-7, 109; Randall G. Bowdish and Bruce Woodyard, "A Naval Concepts-Based Vision for Space," *U.S. Naval Institute Proceedings* 125, no. 1 (January 1999), 50-53. [BACK]

[106]See John E. Hyten, *A Sea of Peace or a Theater of War: Dealing with the Inevitable Conflict in Space,* ACDIS Occasional Paper (Champaign, IL: University of Illinois at Urbana-Champaign, April 2000). [BACK]

[107]USCNS 21, *New World Coming,* 143. [BACK]

[108]Spacey, *Does the United States Need Space-Based Weapons?* 107. [BACK]

[109]There are also other political constraints. See Kagan, "Star Wars in Real Life," 112-118. [BACK]

[110]The Honorable Sheila E. Widnall, Secretary of the Air Force, "The Space and Air Force of the Next Century," address to the National Security Forum, Maxwell AFB, AL, May 29, 1997 <www.af.mil/news/speech/current/The_Space_and_Air_Force_of.html>, quoted in Spacey, *Does the United States Need Space-Based Weapons?,* 4. [BACK]

[111]Quoted in Spacey, *Does the United States Need Space-Based Weapons?* 4. [BACK]

[112]In terms of the current status of the United States, see Davis and Sweeney, *Strategic Paradigm 2025,* 286-288. [BACK]

[113]>Seyom Brown has argued that gross imbalances in military power combined with inherently destabilizing deployments cause such competition. See Brown, *The Causes and Prevention of War,* 2d ed. (New York: St. Martin's Press, 1994), 94-98. [BACK]

[114]A similar approach (concerning Russia) was suggested earlier by Fred C. Ikle, "Comrades in Arms: The Case for a Russian-American Defense Community," *National Interest* 26 (Winter 1991/92), 22-32. [BACK]

[115]This is the basis behind the planning methodology known as competitive strategies. See Henry D. Sokolski, ed., *Prevailing in a Well-Armed World: Devising Competitive Strategies Against Weapons Proliferation* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute, March 2000), 10-11. See also Khalilzad and Lesser, *Sources of Conflict in the 21st Century,* 19-20. [BACK]

[116]One proposed approach is to allow other powers to have their own geographic spheres of influence, as suggested in James Kurth, "American Strategy in the Global Era," *Naval War College Review* 53, no. 1 (Winter 2000), 7-24. [BACK]

[117]Patrick M. Cronin, ed., *2015: Power and Progress* (Washington, DC: National Defense University Press, July 1996), 136-137. [BACK]

[118]See, for example, Paul Bracken, *Fire in the East* (New York: HarperCollins, 1999), 63-70. [BACK]

[119]This view is implied by Cronin: "while American military presence overseas would retain its value, the form and context of the presence must be adapted to the shifting parameters of conventional warfare." Cronin, *2015*: *Power and Progress,* 145. [BACK]

[120]"The Access Issue," *Air Force Magazine,* 42-46. [BACK]

[121]Office of Naval Intelligence (ONI), *Challenges to Naval Expeditionary Warfare* (Washington, DC: ONI, 1997), 26-31. [BACK]

[122]A discussion of the force structure implications for the Army can be found in Davis and Sweeney, *Strategic Paradigm 2025,* 306-313. [BACK]

[123]See, for example, John Mueller, "The Escalating Irrelevance of Nuclear Weapons," in T.V. Paul, Richard J. Harknett, and James J. Wirtz, *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order* (Ann Arbor: University of Michigan Press, 1998), 73-98. [BACK]

[124]Robert G. Joseph and Ronald F. Lehman II, project directors, *U.S. Nuclear Policy in the 21st Century, Final Report* (Washington, DC: National Defense University/Lawrence Livermore National Laboratory, 1998), 1.13-1.16. [BACK]

[125]See Scott D. Sagan, "The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks," *International Security* 24, no. 4 (Spring 2000), 85-115. [BACK]

[126]See in Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate* (New York: W.W. Norton, 1995). [BACK]

[127]"Traditional methods of deterrence have inherent limitations and tend to be ineffective in countering proliferation of WMD today." David W. Siegrist and Janice M. Graham, *Countering Biological Terrorism in the U.S.: An Understanding of Issues and Status* (Dobbs Ferry, NY: Oceana Publications, 1999), 7, 18. An opposing view is implied by the discussion in Joseph and Lehman, *U.S. Nuclear Policy in the 21st Century,* 1.13, 2.40-2.41. [BACK]

[128]"For example, deterrence may prove difficult against religiously-motivated terrorists who believe they are carrying out the will of their Supreme Being. The components of deterrence need to be reexamined, then refocused, with other more pertinent options added." Siegrist and Graham, *Countering Biological Terrorism in the U.S.,* 18. [BACK]

[129]"If their strategy can be beaten, terrorists can be defeated." Gray, "Combating Terrorism," 20. [BACK]

[130]Ibid., 22. [BACK]

[131]See Mark E. Kosnik, "The Military Response to Terrorism," *Naval War College Review* 53, no. 2 (Spring 2000), 13-39. [BACK]

[132]See discussion in Tangredi, *All Possible Wars?* 12-13. [BACK]

[133]Davis and Sweeney maintain "that basing studies of the future security environment on such unexpected and unanticipated events ill serves the defense planner or the foreign policy professional, since it is almost impossible to prepare for such eventualities. . . . Putting aside for a moment whether or

not these [wildcards] are even valid arguments, the broader point remains that such possibilities are useless to long range planning." Davis and Sweeney, *Strategic Paradigm 2025,* 218. The NDU Working Group disagreed with their conclusions and sees great value in developing hedging strategies against selected wildcards. Apparently, so do Davis and Sweeney, who later suggest that there are at least "three wild cards worth considering"; ibid., 219-221. [BACK]

[134]The sources surveyed originally identified seven wildcards: (1) creation of a United Nations army; (2) Congress revises or repeals restrictions on direct military involvement in domestic law enforcement; (3) a worldwide economic collapse; (4) cascading economic disasters; (5) unexpected development of a military near-peer; (6) collapse of a key U.S. regional ally; and (7) the rise of neo-fascism or ethnic hatred as a potent world ideology. All wildcards are not of equal probability. A careful selection needs to be made as to which are best candidates for further study. Among the best guides are the degrees to which current plans could be adjusted quickly to a particular unexpected event, and the relationship between the particular wildcard and the dissenting arguments identified through the development of the consensus. Detailed assessment can be found in Tangredi, *All Possible Wars?* 119-132. [BACK]

[135]Michael Pillsbury, *China Debates the Future Security Environment* (Washington, DC: National Defense University Press, 2000), xxiii. [BACK]