INTRODUCTION

This overview attempts to weave highlights of the three regional analyses together with independent judgment to present an overall picture of possible alternative geostrategic worlds and what they might mean for the United States and U.S. Air Force planners.

We begin this overview with nine tenets about global trends in the next 25 years. We offer these propositions in great measure because of their power to shape the security environment as we enter the next century. The nine propositions are as follows:

1. The United States will remain a globally engaged actor.
2. The global distribution of power will change.
3. Great-power relationships will be in flux.
4. Regional divisions will be increasingly blurred.
5. The U.S. homeland will be more exposed to attack.
6. The rise of a “global competitor” is uncertain.
7. Technology, including military technology, will spread rapidly.
8. The spread of nuclear, chemical, and biological (NBC) weapons will remain a major problem.
9. The U.S. military will be called upon to respond not only to major regional warfare but also to other crises, and to play a key role in shaping the future security environment.

We then describe three alternative future worlds, as shown in Table 1. The first represents a base case of what 2025 might look like. In many ways, it is a linear projection of today's world. While not based upon dramatic fundamental departures from the world as we know it, this base case does present some new and intriguing challenges to the planner.

Our second alternative is a more benign world than the first one. The second world might be characterized as a world of convergence and cooperation rather than conflict. While not completely devoid of strife, the great powers are at peace and actively cooperate in preventing or terminating such clashes as do arise among or within lesser actors.

### Table 1

<table>
<thead>
<tr>
<th>Element</th>
<th>Base Case</th>
<th>Benign</th>
<th>Malign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Muddling along</td>
<td>EuroFederalism</td>
<td>EU fragmentation</td>
</tr>
<tr>
<td>Russia/FSU</td>
<td>Russian confederation</td>
<td>Dynamic Russia</td>
<td>Sick man of Eurasia</td>
</tr>
<tr>
<td>Middle East</td>
<td>Regional competition</td>
<td>Stable prosperity</td>
<td>Anarchy</td>
</tr>
<tr>
<td>China</td>
<td>Assertive</td>
<td>Liberalizing</td>
<td>Hegemonic</td>
</tr>
<tr>
<td>Japan</td>
<td>Continuity</td>
<td>Proactive partner</td>
<td>Regional competitor</td>
</tr>
<tr>
<td>Asia</td>
<td>U.S. preponderance</td>
<td>Pax Americana—plus</td>
<td>Regional dominance</td>
</tr>
<tr>
<td>NBC proliferation</td>
<td>Modest</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Power relations</td>
<td>Evolving</td>
<td>Stable</td>
<td>Unstable</td>
</tr>
<tr>
<td>Global competitor</td>
<td>Uncertain</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Sources:** Internal RAND 1996 area papers—Ian O. Lesser, Bruce R. Nardulli, and Lori Arghavan on the Middle East; John Van Oudenaren on Europe and the FSU; and Ashley Tellis, Chung Min Lee, Courtney Purrington, and Michael D. Swaine on Asia. **NOTE:** FSU = Former Soviet Union; EU = European Union.
The third world we describe is one in which things have, quite simply, gone bad. Beset with economic, demographic, and political turmoil, it is a world of instability, weapons proliferation, and tenuous peace. This world is also the only one of our three worlds that features a global rival to the United States.

These future worlds are described according to analyses based in large measure on trends that are observable in the mid-1990s. In addition to these trends, there are a number of potential “wild cards”—unforeseen events that could cause a major discontinuity or fundamental change in U.S. national security objectives and/or the role of the U.S. military in pursuing them. We suggest that there are three broad classes of such wild cards: environmental, politico-cultural, and techno-scientific.

Any of a baker’s dozen of potential wild cards may come into play:

- A highly lethal airborne virus emerges and kills millions.
- Astronomers identify an asteroid or comet on a collision course with earth.
- A powerful earthquake devastates highly populated areas of coastal California.
- Unchecked global temperature increases cause massive crop failure and large-scale coastal flooding around the world.
- An economic depression grips the United States.
- A major regional ally suffers revolutionary collapse and disorder.
- Congress repeals or dramatically revises the restrictions on U.S. military involvement in domestic law enforcement.
- Neofascists or extreme fundamentalists come to power in a nuclear-armed country.
- A new cold war arises along “civilizational” cleavages (i.e., Islam versus the West).
- An energy source is developed that provides clean, inexpensive, and virtually limitless power.
• A new technology promises to revolutionize daily life—and warfare—as dramatically as aviation and computers did in the 20th century.

• New technologies cut the cost of launching payloads into earth orbit by an order of magnitude.

• Sensor technologies render the oceans transparent.

Clearly, we are not suggesting that the United States revamp its whole defense-planning infrastructure to cope with such possibilities. We wish only to call attention to a class of factors that is often overlooked as we lay out future military requirements and to suggest that U.S. interests will be served best by a strategy with built-in flexibility to hedge against the unexpected—prepared both to absorb unanticipated shocks and to exploit new opportunities.

NINE PROPOSITIONS ABOUT THE FUTURE WORLD

1. The U.S. Will Remain a Globally Engaged Actor

We are convinced that the United States will remain engaged as a major player on the global scene through the first years of the 21st century. Indeed, despite the occasional eruption of isolationist sentiments, we believe that the nation simply has little choice in the matter. The sheer magnitude of the U.S. economy; the country’s dense and increasing web of commercial, cultural, political, and security ties to other nations and actors; and its sheer pervasiveness and prominence make the United States the globe’s “500-pound gorilla” whether we like it or not.1

1We would do well not to underestimate the degree to which the United States remains culturally dominant even when its economic and political preeminence is seen by some to be fading. Wander the streets of Paris, Tel Aviv, or Tokyo and note the number of Michael Jordan jerseys being worn by teenagers, the number of U.S. films being shown in cinemas, and the explosion of Pizza Huts and McDonald’s. In how many languages do people wonder, “Who shot J.R.?”

These linkages are not trivial; in some ways they may be deeper and more lasting than political ties (recall that Levi’s blue jeans were a status symbol in the pre-perestroika USSR). And this enmeshing—which seems likely to endure so long as kids worship sports stars and Hollywood remains synonymous with “entertainment”—makes the United States a threat and a target for regimes and creeds that wish to resist our influ-
With the end of the global East-West competition, the United States can be more selective in its military involvement around the world than was the case during the Cold War. However, as a powerful actor with global interests, the United States will remain likely to become involved in a variety of foreign contingencies, ranging from forward defense of a threatened ally to disaster relief and other varieties of humanitarian assistance. The U.S. military will be called upon to play a major role in some such undertakings. As such, it seems desirable that the armed forces, including the Air Force, remain “full-service” providers. It is difficult to identify what existing deployable capabilities the military can afford to divest itself of in the face of the possible menu of challenges confronting the United States over the next quarter century.

Should the United States somehow manage to withdraw from the world stage, the implications would be staggering. Globally, the competition to fill the vacuum left behind by the retreat of American power could lead to widespread instability and conflict, endangering former friends and emboldening former adversaries. Within the United States, the military establishment would undoubtedly shrink dramatically as budgets declined.

This withdrawal would be an unlikely turn of events. U.S. involvement in the world—in Latin America and Asia particularly—long predates the Cold War and will likely long survive it. Commercial ties and humanitarian concerns will continue to link the United States to the world at large. The role the United States chooses—or is, by the weight of historical circumstances, compelled—to play in the world will itself be a primary determinant of the kind of world the United States confronts.

\[\text{References, either out of insular motives or a desire to supplant our message with their own. Thus do security implications grow from seemingly frivolous cultural connections.}\]


\[\text{3For a discussion of the options possibly available to the United States, see Zalmay Khalilzad and David Ochmanek (eds.), \textit{Strategic Appraisal 1997}, Santa Monica, CA: RAND, MR-826-AF, 1997.}\]
2. The Global Distribution of Power Will Continue to Change

For several hundred years, Europe and North America have been the world’s centers of wealth and power. Just as this millennium fades into the new, so, too, will Western dominance decline. The world’s liveliest economies are in Asia. Led by China and the four “tigers”—Hong Kong, Singapore, South Korea, and Taiwan—the region has experienced some of the highest rates of sustained economic growth in recent history, rates that are likely to remain relatively high for at least another two decades (Tellis et al., 1996). China today is widely regarded as having the world’s second largest economy, after gross domestic product estimates are adjusted to reflect parity in purchasing power. The World Bank expects that, by 2020, China will have the world’s largest economy. It would not be surprising if political influence and ambition grow in Asia to accompany this phenomenal expansion of wealth; indeed, in historical terms, it would be more surprising if they did not.

From a U.S. perspective, Asia’s growing importance as a trading partner accentuates the importance of the region’s economic growth. Today, Asia consumes roughly 30 percent of all U.S. merchandise exports and supplies over 40 percent of American merchandise imports; in contrast, the rest of North and South America combine to provide 31 percent of U.S. imports and buy 37 percent of her exports. And, as Figure 1 shows, Asia’s role in U.S. trade patterns displays an inexorable rise over the last 20 years.

In contrast to Asia’s dynamism, Europe finds itself in a period of relative stasis, meaning, in this context, relative decline. While seven of today’s 10 largest economies are in Europe, only two are projected to be by 2020. Further, while a truly unified Europe would be a powerful counterweight to the United States and Asia, there are many obstacles to be overcome before a Europe “whole and free” can be realized. Uncertainties abound concerning the future course of Russia, Ukraine, and other former Soviet states, and there are many questions regarding how to integrate the ex-Communist states and statelets of Eastern Europe into the continent’s political, economic, and security institutions.

---

The greater Middle East will remain a flashpoint demanding constant U.S. attention. Beset by powerful systemic stresses arising from demographics, failed governments, dysfunctional economies, growing resource scarcity (especially water), major ideological cleavages within and between various countries, and ethnic problems, the states of the region face an array of challenges that could explode into widespread inter- or intrastate conflict at virtually any moment. These pressures will only grow over the coming years, meaning that the region—whose oil reserves supply an increasing proportion of the world’s energy demands—will remain as important as ever to the global economic well-being. The future Middle East could well be characterized by events pulling people along, in many cases with no one in control, leading to serious prospects of overall breakdowns.

A key failing of many Persian Gulf states may be their failure to use their oil income to develop economies that are less reliant on the export of petroleum products. Virtually every Gulf country—Bahrain excepted—garners over 80 percent of its export earnings from oil sales. While the nature of the demand for oil may make these states less vulnerable to disruption than might otherwise be the case, such reliance on a single export product typically characterizes a weak and fragile economy.
The other side of this picture of an unstable and implosive Middle East is what might be called the “clash of civilizations” model, which pits a loosely knit Islamic crescent—stretching perhaps from Morocco and Algeria to Pakistan—against the West (broadly defined), creating a new Iron Curtain between north and south. While such an admittedly unlikely arrangement might at least offer some respite from worries about, say, Saudi internal stability, the larger confrontation would have worrisome aspects not completely dissimilar from those of the 1945–1990 East-West standoff.6

3. Great-Power Relationships Will Be in Flux

In part because of the changing centers of political and economic gravity, relations among the great powers—indeed, membership in the somewhat self-defined coterie of “great powers”—will be quite dynamic through the next two decades. Simply put, great uncertainty prevails.

The single largest variable might be China. How will China carry her rapidly growing weight on the global scene? Will economic security make Beijing a status quo power or whet her appetite for power and influence?

A second key actor is Russia. Russia’s location, its vastness, and its potential economic and military prowess mean that Moscow’s eventual destiny is tightly intertwined with the fates of her neighbors in Europe, Asia, and the Middle East. Whether Russia emerges from her present painful transition as a stable, democratic, and economically strong power—a “Russian miracle” analogous to those seen in postwar West Germany and Japan—or as a new “sick man of Eurasia,” the impact will be felt globally.7

Other questions abound as well. For example,

• Will Germany and/or Japan conclude that the time is right to emerge from their postwar places in the wings of the global stage

---

6Interestingly, Lesser, Nardulli, and Arghavan (1996) note that the term “cold war,” or guerra fría, was first used by Spanish commentators to describe the competition between Spain and the Ottoman Empire.

7Van Oudenaren (1996) discusses these and other possible Russian futures.
and take on the geopolitical stature to which their economic weight would seem to entitle them? The implications could be significant: For example, one alternative in the event of a failure of European integration could be a German-dominated central-European political-economic bloc that could find itself in competition with Russia to the east (Van Oudenaren, 1996).

- Germany’s role in the future world will be strongly conditioned, of course, by the outcome of the ongoing process of European unification. A strong, federated Europe, as noted earlier, could help offset Asia’s steadily growing stature. Failed integration, on the other hand, could accelerate Europe’s relative decline in influence, making it neither a strong rival from a U.S. viewpoint nor a strong partner on global or regional issues. (Van Oudenaren, 1996).

- Finally, we are likely to be approaching the conclusion of the 50-year conflict between North and South Korea, which does not strictly fit the category of “great-power relationships.” The nature of the endgame, however, will have a tremendous impact on Asia’s evolution. A major war—one perhaps involving the use of NBC weapons and attacks on territory outside the Korean peninsula—remains a possibility; the negative consequences of such a conflict would reverberate throughout Asia and the world. Even should unification proceed peacefully, the transformations it could spark in Asia’s internal dynamics— involving China, Japan, and Korea itself—could be profound.

It is important to recognize that increasing dynamism does not necessarily imply escalating friction. In what we will later call a convergent world—one in which there is broad adherence to what might be called “Western” standards of pluralistic political and market-oriented economic intercourse—the emergence of new power constellations need not imply increased competition. At the same time, however, significant divergences—on cultural, ethnic, political, historical, or economic grounds—will increase the likelihood of clashes arising from shifting power balances. Regions replete with

---


9The future of Korea is discussed in depth in Tellis et al. (1996).
such cleavages—the Middle East almost certainly, and Asia quite probably—will be more likely to suffer from profound transitional anxieties and the possible eruption of conflict as status shifts among actors.

Interregional power relations will also be in flux. Changes in relations will not be as consequential for global stability as those among great powers, but these interregional trends will have significant implications for cooperation, conflict, and access for U.S. forces in U.S. dealings with specific regions.

4. Regional Boundaries Will Be Increasingly Blurred

It is by now a truism that the world is growing increasingly interconnected and interdependent. From the standpoint of U.S. national security strategy, there is a growing likelihood that tensions and conflicts in one area will spill over into neighboring regions.

Any division of the globe into distinct regions has always been artificial; one need only recall the 14th-century spread of the black plague from Asia to Europe. However, as the century turns over, technology has not only netted the four corners of the earth more closely together, it has also made possible an increase in the strategic reach of nations and groups. A hacker sitting at a personal computer in Finland can be simultaneously everywhere and nowhere; he can wreak havoc on the unsuspecting or the unprotected. On a more physical plane, Figure 2 shows the areas threatened by a ballistic missile with a 3000-kilometer range based near Algiers, Tehran, or Beijing. Note that every major European, Asian, and Middle Eastern capital city falls into one or another range ring.10

The end of the Cold War has also unleashed religious, ethnic, and nationalistic aspirations that had previously been long suppressed or lost in the noise generated by the superpower confrontation. The Kurdish dilemma, for example, bridges Central Asia, the Middle East, and Europe. Similarly, Islam as a unifying identity has little regard

---

10The most notable exception being Helsinki.
for traditional regional boundaries, and events on one edge of the Islamic world—the acquisition of nuclear weapons by Algeria, for example—would have repercussions not only in North Africa but halfway around the globe and beyond.

The world has been growing steadily smaller for hundreds of years; in the next century, it will no longer be possible for any country, including the United States, to rely on physical distance to separate it from the dangers of the world. And the U.S. military command structure, organized around tidy divisions of the globe into well-defined geographic entities, may find itself under considerable stress as more and more crises arise that straddle those neat demarcations.

5. The U.S. Homeland Will Be More Exposed to Attack

A second consequence of the shrinking world is that the United States homeland—for almost two hundred years a sanctuary from foreign hostile action—will be in increasing jeopardy of coming un-
der attack.\textsuperscript{11} These attacks could go well beyond the run-of-the-mill
terrorist acts with which we have become all too familiar.\textsuperscript{12}

Porous U.S. borders and the sheer number of tempting targets in the
United States point toward an increasing likelihood of strikes on
American soil. An adversary might attempt unconventional warfare
operations against militarily significant targets—airfields, space-
control facilities, seaports, command-and-control installations, and
so forth—in an attempt to disrupt U.S. power-projection opera-
tions.\textsuperscript{13} Countervalue attacks directed against civilian targets might
also occur as opponents attempt to deter U.S. involvement or raise
the costs of intervention. It seems possible that, by 2025, several
states hostile to the United States might be able to launch very lim-
ited NBC attacks against the United States; a suitcase or a shipping
container might be as likely a delivery vehicle as a long-range missile,
and the perpetrator could even be a nonstate actor rather than a
country.\textsuperscript{14}

During the Cold War, Americans faced the prospect of instantaneous
annihilation at the hands of the Soviet Union. While Russia and per-
haps one or two other countries will retain into the next century the
ability to devastate the United States, Moscow’s behavior will be
conditioned by the same cold calculus of deterrence that kept the
peace during the years of East-West confrontation. The emerging
and more immediate threat is not one of societal destruction but of
smaller, damaging attacks, some of which could originate from states

\textsuperscript{11}Obviously, Soviet nuclear forces aimed at the United States constituted a very real
and compelling threat; however, the fact remains that no foreign power has conducted
organized military operations on U.S. soil since the War of 1812. Some die-hard ad-
herents to the Confederate cause might argue that Union “aggression” against the
South constituted “foreign hostile action” as recently as 1865. The authors, however,
stand as Lincoln stood: that the Confederacy consisted of states in rebellion and not a
sovereign power and that therefore the Civil War was just that—an internal conflict.

\textsuperscript{12}For a seminal discussion of how terrorism might develop, see Brian M. Jenkins, New
Modes of Conflict, Santa Monica, CA: RAND, R-3009-DNA, 1983.

\textsuperscript{13}For a discussion of how small teams of ground forces could disrupt U.S. Air Force air
base operations, see David A. Shlapak and Alan J. Vick, “Check six begins on the
ground”: Responding to the Evolving Ground Threat to U.S. Air Force Bases, Santa

\textsuperscript{14}At least four countries—Russia, Great Britain, France, and China—are capable today
of striking the United States with nuclear weapons. We are here referring to a future
threat emanating from other, smaller powers.
or groups less susceptible to the “logical” cost-benefit accounting of “rational” deterrence theory. Defending the nation against these sorts of adversaries will be a significant new challenge for the U.S. armed forces over the coming years.

6. The Rise of a “Global Competitor” Is Uncertain

Our analyses suggest that a number of countries—China in particular—could dramatically increase their strategic weight and military reach over the next 25 years. China might even attempt to challenge the United States and its interests worldwide.15

Many other countries could also increase their military capabilities to achieve some degree of parity with the United States in one or more arenas of military competition, and we can identify powers whose ambitions may exceed those normally attributed to “regional” opponents. So the United States will probably encounter challengers who have some peer capabilities—what might be called “niche competitors”—and supraregional appetites. From the perspective of 1997, however, it seems unlikely that any power has, or will in the near term have, both the ambitions and the resources necessary to mount a global challenge to the United States.

In saying this, however, we must bear in mind that history is notoriously unpredictable and that 30 years can be quite a long time. In 1945, the Soviet Union had the largest army and air force in the world and, despite the immense losses it had suffered in four years of combat with Nazi Germany, it stood astride Eurasia as a colossus. Twenty-five years earlier—roughly the same temporal distance as that between now and 2020—the USSR was in turmoil, possessor of a collapsing, largely agrarian economy and engaged in the last stages of a bloody civil war. Five years before that (1915, 30 years before the Red Army raised the hammer and sickle over the ruins of the Reichstag), the Soviet Union did not even exist, and its predecessor state—imperial Russia—was embarked on an ill-advised war that would end in catastrophic military defeat and revolution. Even without war,

15“Global competitor” means precisely that—an adversarial power that would attempt to challenge the United States and its interests worldwide. The Soviet Union was a true global competitor to the United States during the Cold War; Napoleonic France and Britain are another, more historically distant, example of global competitors.
dramatic and unanticipated changes can occur in the balance of power, as was the case with the rise of Germany and the United States between 1870 and 1910.

Because things can change radically over a period of even a few decades or even years, and because we are uncertain about the emergence of a global challenger in the next two decades, U.S. policy must remain cognizant of the possibility of new competition. Precluding such an eventuality should be the most important U.S. objective into the 21st century.16

7. Technology Will Spread Rapidly

In March 1977, a small company called Apple Computer filed articles of incorporation with the state of California. About a month later, the company’s eight employees rolled out their first product—the Apple II home computer—at the West Coast Computer Faire in San Francisco.17 Today, barely 20 years later, there are approximately 16 million desktop computers in homes across America—not including the countless other computers that run our automobiles and home appliances.

Ten years ago, cellular telephones were an expensive rarity. Today, they are an order of magnitude cheaper, much smaller, more capable, and ubiquitous. In the next 10 years, direct-satellite service and high-speed wireless data transmission promise to revolutionize communications as completely and surely as the first cell phones did.

---

16Our colleague Robert Levine made the excellent observation that, while it may be unlikely that China will develop either the appetite or the capabilities to constitute itself a true “global” challenger to the United States, Beijing could marshal sufficient resources to create a strategic nuclear threat to the U.S. homeland—comparable, in terms of retaliatory capability, to that fielded by the former Soviet Union. Such a development would at the least necessitate a revival of some aspects of a classical deterrence posture by the United States. Moreover, such a development could create a triangular U.S.-Russian-Chinese strategic equation, the balancing of which could prove challenging. In either event, the implications for U.S. Air Force force structure and planning could be significant. We are indebted to him for this point.

These are just two of the most striking examples of the pace of contemporary technological change. Computers and computer components—processing units, memory, storage devices—continue to climb in performance while dropping in price; as they do so, they are driving a revolution in how people worldwide live, work—and make war. For cellular communications and powerful laptop computers are not just a convenience for fast-moving business people—they can also form the backbone of, for example, a highly redundant and robust mobile military command-and-control system.

Technologically, the watchword for the coming years is “diffusion.” As commercial needs and standards increasingly dominate, dual-use technology—technology with both civilian and military applications—will proliferate widely, with important security implications. This will be true on the large scale—where pharmaceutical knowledge can be equally applicable to chemical weapons or aspirin, to biowarfare toxins or antibiotics—and the small—where the realtor’s cellular modem becomes the terrorist’s remote detonator.

The next 20 years will also witness a revolution in the nature and extent of access to space-based capabilities. High-resolution multispectral imagery from space, once the province of superpowers alone, will be widely available at low cost.18 The pictures thus acquired will speed around the globe on a world-girdling information network of which today’s World Wide Web is just a precursor.19 The Global Positioning System (GPS)—or a successor family of satellite navigation aids—and satellite communications are just two high-tech common-user utilities available to one and all.20

---


19In 1986, the National Science Foundation’s (NSF’s) NSFNet “backbone,” then the heart of the Internet, ran at 56 kilobits per second (KBPS). By 1992, it was up to 45,000 KBPS; or 45 megabits per second (MBPS)—an 800-fold increase in six years. This year, MCI (one of the commercial carriers who took over Internet management from the NSF in 1995) set up a 122-MBPS backbone. Cable modems, meanwhile, promise user-to-host connectivity at up to 10 MBPS, over 350 times faster than today’s 28.8 KBPS modems. (Glen Banta, “Internet Pipe Schemes,” Internet World, Vol. 8, No. 10, October 1996, pp. 62–70.)

20Commercial GPS receivers, for example, first came on the market carrying price tags in the thousands of dollars. By 1994, they had dropped to the mid-hundreds. In the
Military-specific technology will also spread quickly and widely. As the global arms market becomes ever more competitive, profit-making pressures will likely allow advanced weapons and weapon technologies to get into more and more hands. The future U.S. Air Force could encounter NBC weapons, ballistic and cruise missile systems, advanced sensor capabilities, and sophisticated air-defense weapons at almost any turn. Highly lethal “fire-and-forget” beyond-visual-range air-to-air missiles could turn even a poorly trained enemy pilot into a deadly opponent for U.S. air crews. To visualize the implications, imagine Somali “technicals” with SA-18s and laser-guided mortar shells in addition to AK-47s, or Bosnian Serbs with stealthy ground-launched cruise missiles having GPS guidance and chemical warheads, or Saddam Hussein with functioning nuclear warheads tipping advanced medium-range ballistic missiles (MRBMs).21

8. The Spread of NBC Weapons Will Remain a Problem

As the preceding paragraph suggests, the proliferation of NBC weapons will be a continuing problem through 2025. By then, several dozen countries will almost certainly have the capability to build and deliver NBC weapons, although the number with known arsenals may be considerably smaller. As relations among powers shift in perhaps-unpredictable ways (see assertion 3, above), more countries may perceive it to be in their interests to have NBC weapons as a sort of “security blanket” against the unexpected. Further, as the expertise to build these devices becomes more widespread, reasonably well-heeled nonstate groups—terrorist organizations, insurgencies, criminal rings—may find themselves able to acquire small numbers of them.

As the number of actors possessing nuclear arms and other weapons of mass destruction increases, so, seemingly, does the likelihood of their falling into the hands of individuals or groups who may see

---

21However, there may well be some countries in which a variety of factors—cultural, economic, and educational—may impede the integration of advanced technology into the military or may reduce the military’s ability to employ advanced weapons effectively.
them as usable instruments; the 1995 nerve-gas attack on the Tokyo subway is a disturbing precedent. Although the United States can employ a range of strategies against such actors, some may prove frustratingly hard to deter.\textsuperscript{22} It may be the case that most future overseas military operations will be undertaken in the shadow of NBC weapon use. This would represent a radical break with the past, and it would have major implications for U.S. forces and operations, including the possibility that a future president would be deterred from intervention, even in a situation in which U.S. interests were clearly at stake.

9. The U.S. Military Will Be Called Upon to Respond to Crises Other Than “Traditional” Warfare

In the wake of the Cold War, the U.S. armed forces have increasingly turned their attention to so-called “military operations other than war” (MOOTW). These kinds of activities—lesser conflicts, punitive raids and expeditions, peacekeeping, humanitarian operations, and so forth—seem likely to remain a frequent feature of the world scene through the first part of the 21st century.

To term such undertakings “other than war” risks understating the level of violence that may be involved in such operations. For example, counterproliferation operations—whether conducted via air strikes, special operations forces, or insertion of software “agents” that “soft kill” the weapons—could prompt the targeted group or country to use their NBC weapons before they lose them. Whether the target of such strikes was U.S. forces, an ally’s capital, or the American homeland, the results would certainly feel a great deal like “war” to those unfortunate enough to be in the way. Similarly, it seems possible that a future president could be confronted with a situation in which American citizens must be evacuated from a country whose regime would forcibly oppose any effort to extract them. Although not “war,” successfully carrying out the mission would likely require the judicious and effective use of force.

\textsuperscript{22}For an evaluation of alternative deterrence strategies against opponents having small nuclear arsenals, see Dean Wilkening and Kenneth Watman, Nuclear Deterrence in a Regional Context, Santa Monica, CA: MR-500-A/AF, 1995.
Humanitarian assistance will remain a U.S. vocation, as well. For decades, the U.S. military has been dispatched to assist victims of flood and famine, civil war, and technology run amok. We do not see the demand for such aid decreasing over the years to come. Indeed, it seems to us likely that the number and severity of humanitarian crises will increase over the next 30 years. Continuing urbanization will stress already-limited resources in the less-developed world. Disease pandemics, spreading quickly through impoverished and squalid cities, will exact an enormous toll. Economic failures, political chaos, and ethno-religious strife will create prodigious refugee flows. Meanwhile, the U.S. military will remain the organization best equipped to respond to this menu of challenges.

If responding to, say, a typhoon striking an overcrowded, brutally impoverished, AIDS-ravaged coastal African city seems insufficiently challenging, more-desperate scenarios can be created by overlaying the humanitarian mission with one or more of the other factors discussed in the preceding pages. For example, imagine a situation in which several densely populated South Asian cities have been struck with nuclear weapons by India and Pakistan in an ongoing regional conflict. The United States would surely be called upon to lead relief efforts, and the U.S. military would be at the leading edge of any response. Likewise, internal conflicts in countries important to U.S. interests, such as Saudi Arabia, Mexico, Egypt, and Cuba, might produce irresistible demands for U.S. military involvement—directly or indirectly in support of allies and friends. In short, while U.S. forces must continue to be able to deter and, if necessary, defeat large-scale military aggression, they must also expect to be called upon to engage in many kinds of difficult smaller-scale operations as well.

---

23 According to the United Nations, the urban population will grow from 21.9 to 43.5 percent of total population in the least-developed countries between 1995 and 2025. (United Nations Population Division, Department for Economic and Social Information and Policy Analysis, World Urbanization Prospects: The 1994 Revision, 1994.)

24 In parts of sub-Saharan Africa, for example, nearly 25 percent of the population is HIV-positive.

25 In January 1995, the United Nations High Commissioner for Refugees reported that more than 27 million people fit the UN’s definition of “refugee.” The number of refugees has increased dramatically over the past 20 years or so.

26 We thank colleague Bruce Nardulli for this example.
ALTERNATIVE FUTURE WORLDS: THREE EXAMPLES

We next describe three alternative future worlds. They are not intended to represent the full range of possibilities, but are snapshots of three kinds of security environments, with some discussion of what each might imply for the United States and its military.

The first represents a base case of what 2025 might look like. In many ways, it is a linear projection of today's world. While not based upon dramatic fundamental departures from the world as we know it, this first world does present some new and intriguing challenges to the planner.

Our second alternative is a more benign world than the first one. It might be characterized as a world of convergence and cooperation rather than conflict. While not completely devoid of strife, the great powers are at peace and actively cooperate in preventing or terminating such clashes as do arise among or within lesser actors.

The third world we describe is one in which things have, quite simply, gone bad. Beset with economic, demographic, and political turmoil, it is a world of instability, proliferation, and tenuous peace.

We recognize that it is highly unlikely that any of these three worlds will come to pass as we describe them. We are not trying to predict how the world will change, but how it might change and what those changes might mean to U.S. national security planning.

World I: Evolutionary

Description. Table 2 lays out our base-case world, which is an evolutionary descendent of 1996.

In this world, Europe has not moved decisively toward either federalism or renationalization, but continues to operate with a complex mix of intergovernmental and supranational mechanisms. Shifting subgroups of countries work together in particular areas without decisive leadership from any quarter. (Van Oudenaren, 1996.)

Russia, meanwhile, has become the center of a revitalized confederation of the Slavic components of the former Soviet Union. Be-
Table 2

Three Alternative Worlds—World I

<table>
<thead>
<tr>
<th>Component</th>
<th>Base Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Muddling along</td>
</tr>
<tr>
<td>Russia/FSU</td>
<td>Russian confederation</td>
</tr>
<tr>
<td>Middle East</td>
<td>Regional competition</td>
</tr>
<tr>
<td>China</td>
<td>Assertive</td>
</tr>
<tr>
<td>Japan</td>
<td>Continuity</td>
</tr>
<tr>
<td>Asia</td>
<td>U.S. preponderance</td>
</tr>
<tr>
<td>NBC proliferation</td>
<td>Modest</td>
</tr>
<tr>
<td>Power relations</td>
<td>Evolving</td>
</tr>
<tr>
<td>Global competitor?</td>
<td>Uncertain</td>
</tr>
</tbody>
</table>

SOURCES: Internal RAND 1996 area papers—Ian O. Lesser, Bruce R. Nardulli, and Lori Arghavan on the Middle East; John Van Oudenaren on Europe and the FSU; and Ashley Tellis, Chung Min Lee, Courtney Purrington, and Michael D. Swaine on Asia.

NOTE: FSU = Former Soviet Union; EU = European Union.

larus, Ukraine, and the Russian-populated parts of Moldova and Kazakhstan are reunited with Russia proper in a confederation (in Ukraine's case, perhaps loosely so), while the Central Asian and Transcaucasus countries drift away from Russia and toward Asian and Middle Eastern powers. (Van Oudenaren, 1996.)

In this world, the greater Middle East is dominated by an essentially secular competition among regional rivals. In addition to the United States, the countries of China, Russia, and Pakistan are important extraregional actors in a geopolitical free-for-all in which stability depends on either an external power's influence or the emergence of a regional hegemon. (Lesser, Nardulli, and Arghavan, 1996.)

In Asia, China develops into a great power, one that is considerably more assertive about its role and perquisites in Asia, albeit without active aspirations for regional military dominance. For this peaceful development to happen, Beijing's desire for a placid regional environment and its growing linkages with foreign economies must outweigh its (potentially destabilizing) nationalistic impulses (Tellis et al., 1996). Japan also embraces continuity, focusing on managing its economic development and relying on its partnership with the United States to maintain its security. Elsewhere in Asia, American
preponderance holds in the context of new, multiple, rising regional power centers (Tellis et al., 1996).

This is a world of modest NBC proliferation. While efforts to curb the spread of these weapons have not been universally successful, the number of actors with access to NBC means has not exploded. Power relations among the major actors are changing gradually; the new centers that are arising are by and large integrated into a fairly stable global order. The mischief that arises—and it could be considerable—originates with those who are not so well plugged into this order.

Finally, in this world, no global competitor to the United States is likely to emerge.

Implications. In world I, defense of territory remains an important driver of U.S. force structure and planning. The United States needs to retain the ability to confront and defeat an aggressor rapidly and decisively in a large-scale regional conflict. The context of such operations is somewhat different in that (1) operations in urban environments have become increasingly important, and (2) the United States is likely facing an adversary with at least some NBC weapons and delivery capabilities.

In this world, the United States remains the preeminent power, sitting in the center of a web of security treaties and arrangements. As has been the case in the past, these relationships will be a mixed blessing to the United States, as its friends and allies act sometimes as partners in advancing collective security (as they were in the Gulf in 1990 and 1991) and other times as brakes on U.S. policy desires and initiatives (as they frequently did with regard to Bosnia from 1992 to 1995).

Key unknowns in this world are

- What form, exactly, would the projected “Russian union” take? Would any adventuristic impulses inform Moscow’s behavior, either toward the “near abroad” or Russia’s more-distant neighbors?
- How stable are the gray areas and buffers within and between the key regions (e.g., the Balkans, Central Asia, the Mediterranean)?
• How rapidly would NBC weapons spread? In particular, how many new members of the nuclear club will there be in 2025? How effective will U.S. forces be in defeating these weapons?

**World II: Benign**

**Description.** Table 3 incorporates our second world, which is a relatively peaceful and prosperous variant. It might be called a convergent world—one in which democratic institutions and market mechanisms are the norm.\(^\text{27}\)

In this case, Europe has succeeded in achieving federalist unification. In so doing, it constitutes a power with half again as large a population as the United States and a gross domestic product (GDP) some 40 percent greater. Importantly, this new superpower would field a European army and develop both a common defense and security policy and the institutions and capabilities to carry it out. (Van Oudenaren, 1996.)

<table>
<thead>
<tr>
<th>Component</th>
<th>Base Case</th>
<th>Benign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Muddling along</td>
<td>EuroFederalism</td>
</tr>
<tr>
<td>Russia/FSU</td>
<td>Russian confederation</td>
<td>Dynamic Russia</td>
</tr>
<tr>
<td>Middle East</td>
<td>Regional competition</td>
<td>Stable prosperity</td>
</tr>
<tr>
<td>China</td>
<td>Assertive</td>
<td>Liberalizing</td>
</tr>
<tr>
<td>Japan</td>
<td>Continuity</td>
<td>Proactive partner</td>
</tr>
<tr>
<td>Asia</td>
<td>U.S. preponderance</td>
<td>Pax Americana-plus</td>
</tr>
<tr>
<td>NBC proliferation</td>
<td>Modest</td>
<td>Low</td>
</tr>
<tr>
<td>Power relations</td>
<td>Evolving</td>
<td>Stable</td>
</tr>
<tr>
<td>Global competitor?</td>
<td>Uncertain</td>
<td>No</td>
</tr>
</tbody>
</table>

**Sources:** Internal RAND 1996 area papers—Ian O. Lesser, Bruce R. Nardulli, and Lori Arghavan on the Middle East; John Van Oudenaren on Europe and the FSU; and Ashley Tellis, Chung Min Lee, Courtney Purrington, and Michael D. Swaine on Asia.

**Note:** FSU = Former Soviet Union; EU = European Union.

\(^{27}\)It is the sort of world Francis Fukuyama speculated about in *The End of History and the Last Man*, New York: The Free Press, 1992.
Russia in this world is a strong, dynamic actor whose internal structure has evolved in a truly democratic and market-oriented fashion. Externally, Moscow is a status quo power that inevitably exercises a high degree of influence on its neighbors through trade and investment but not through military coercion.

The Middle East in world II enjoys a comprehensive and durable settlement of the Arab-Israeli dispute, successful political and economic reforms and peaceful transitions from authoritarian rule, and movement toward regional integration and effective security architectures. Secularism, democracy, and free-market economies flourish. (Lesser, Nardulli, and Arghavan, 1996.)

The China of this world is similar to that portrayed in world I. In this case, however, the transition to a new leadership generation combined with ever-increasing trade and investment linkages to the outside world have led to a gradual liberalization of the regime and slow movement toward democratization and a full market economy.

This Japan, too, is broadly comparable to that of the baseline world. In the benign world, Tokyo’s economic strength and growing self-confidence make Japan a strong but cooperative partner to both the United States and China, for whom she serves as something of a model. Indeed, the maturation of the U.S.-Japan partnership creates conditions that allow all of Asia to experience a period of stability and economic prosperity.

In this world, NBC proliferation is low. Indeed, some nuclear powers, including Israel, have followed South Africa’s lead and dismantled their nuclear arsenals. Power relations among the major actors are stable, with enduring U.S.-European and U.S.-Japanese ties forming the bedrock of the global order. Obviously, in this world no global competitor to the United States will emerge.

**Implications.** In world II, very different—and very much reduced—demands are levied on the U.S. military. The flash points for large-scale conflict are many fewer than in world I, and the other great powers—federal Europe, Russia, China, and Japan—are able to deal much more effectively with such outbursts as do threaten to erupt. The Middle East, in particular, is radically transformed from what we know today; the stability that prevails there is, in many ways, the hallmark of this peaceful world. While U.S. defense planning still
needs to hedge against the breakdown of the placid global order, missions such as disaster relief, humanitarian assistance, counterterrorism, and suppression of international criminal activities—mostly undertaken in concert with other powers—constitute the main activities of the U.S. armed forces. We might therefore expect the forces to be much smaller and very different in composition from those that exist today.

Important variables shaping world II include the depth and durability of amity between the great power dyads in Europe and Asia.

- Can a dynamic and self-confident Russia and a strong European Union coexist without friction along their peripheries?
- Can Japan and China overcome decades of distrust to cooperate politically and economically and in security matters?
- Can China liberalize itself without unleashing the kind of centrifugal forces that tore apart the Soviet Union in the wake of glasnost and perestroika?
- Will political and economic reform in the Middle East be deep and pervasive enough to eliminate inter- and intrastate strife in the long term?

**World III: Malign**

**Description.** Our final planning case is illustrated in Table 4; it is a world of violent competition and frequent conflict.

In Europe, the failure of integration efforts create a vacuum of power and influence. Western Europe is unable to project stability and prosperity into Eastern Europe and the Balkans, a void that could be filled by a powerful Germany or by renationalization and possible conflict recurring along national and ethnic lines. The NATO alliance has either become irrelevant or has disintegrated because of disagreements among member states. Although the Russia of world III is “authoritarian but weak” in the wake of failed political and economic reform, the overall depressed state of Europe could allow Moscow to reemerge as a potential hegemon, at least over the eastern part of the continent (Lesser, Nardulli, and Arghavan, 1996). China tugs on Russia from the east, and Iran and Pakistan from the
Table 4

<table>
<thead>
<tr>
<th>Component</th>
<th>Base Case</th>
<th>Benign</th>
<th>Malign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Muddling along</td>
<td>EuroFederalism</td>
<td>EU fragmentation</td>
</tr>
<tr>
<td>Russia/FSU</td>
<td>Russian confederation</td>
<td>Dynamic Russia</td>
<td>Sick man of Eurasia</td>
</tr>
<tr>
<td>Middle East</td>
<td>Regional competition</td>
<td>Stable prosperity</td>
<td>Anarchy</td>
</tr>
<tr>
<td>China</td>
<td>Assertive</td>
<td>Liberalizing</td>
<td>Hegemonic</td>
</tr>
<tr>
<td>Japan</td>
<td>Continuity</td>
<td>Proactive partner</td>
<td>Regional competitor</td>
</tr>
<tr>
<td>Asia</td>
<td>U.S. preponderance</td>
<td>Pax Americana-plus</td>
<td>Regional dominance</td>
</tr>
<tr>
<td>NBC proliferation</td>
<td>Modest</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Power relations</td>
<td>Evolving</td>
<td>Stable</td>
<td>Unstable</td>
</tr>
<tr>
<td>Global competitor?</td>
<td>Uncertain</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SOURCES: Internal RAND 1996 area papers—Ian O. Lesser, Bruce R. Nardulli, and Lori Arghavan on the Middle East; John Van Oudenaren on Europe and the FSU; and Ashley Tellis, Chung Min Lee, Courtney Purrington, and Michael D. Swaine on Asia.

NOTE: FSU = Former Soviet Union; EU = European Union.

south. Amidst these tensions, a catastrophic breakdown of a country that still possesses thousands of nuclear weapons is a never-too-distant possibility.

In the Middle East of world III, we find anarchy and chaos. The region is home to any number of “failed states” in which the economic, political, and social order has broken down (Lesser, Nardulli, and Arghavan, 1996). In this world, the global thirst for oil has presumably not abated; the internal weakness of the Gulf states, in particular, invites both external predatory attack and frequent internal struggles for control of resources.

China in world III eschews democratization and normalization for an accelerated program of military modernization, especially air and naval power-projection capabilities (Tellis et al., 1996). Japan might choose to go in one of several directions in the face of China’s drive for regional superiority. Tokyo might decide to ally itself with Beijing; it might seek U.S. support in balancing China; or it might compete with China for Asian leadership. In the worst case—our world
III—Japan loses faith in U.S. security guarantees and chooses the latter path. Tokyo begins converting its economic power into military strength and deploys a small nuclear arsenal to defend itself and its interests against what it perceives as malign Chinese designs. In the rest of Asia, the second-tier powers jockey for position alongside one or another of the competitors within a complex context of border and resource disputes.

In this world, NBC proliferation proceeds at a rapid clip, as actors see nuclear weapons in particular as insurance policies against the dangers around them. Power relations are fluid to the point of instability as small countries seek protectors and larger powers recruit clients. And in this world, it seems likely that a global competitor to the United States could emerge, perhaps as a result of an alliance of convenience between one of the Asian competitors and Russia.

**Implications.** This world is the polar opposite of world II—where in that world we found stability, here there is anarchy and conflict.

The United States in world III confronts multiple dangers without strong, reliable partners. Tensions run high in Europe, Asia, and the Middle East. In particular, a weak Russia relying on its nuclear arsenal to protect itself could pose a constant danger to important U.S. interests worldwide.

The lack of dependable allies forces the United States to field a military capable of waging a major conflict with limited forward basing and minimal support from friendly forces. The need to operate “from arm’s length” is reinforced by the widespread proliferation of NBC weapons, which endanger any large-scale forward deployment of U.S. forces.

Despite world III’s potential for massive human suffering—especially among the “failed states” of the greater Middle East—the United States may ironically find itself involved in less humanitarian relief than in either of the other two futures. Again, the dangers of projecting large numbers of people into an NBC-rich world and the absence of international support could limit American willingness to undertake MOOTW-like operations overseas.

This is a nasty and brutish world; just how unpleasant it is would be significantly affected by the following:
• Is Moscow weak enough to feel under siege but sufficiently strong to lash out against those it sees as threatening her?

• How extensive and intensive are the military aspects of the Sino-Japanese competition for Asian dominance? A contest that is primarily political and economic will obviously be much easier to manage and have much less dangerous implications.

• Can Western Europe get out of great-power competition and set itself off from the chaos in the east and south, or will it increasingly be forced to organize itself as a major power, perhaps under German dominance, that might then come into conflict with Russia?

• Will a global competitor emerge to challenge Washington’s necessarily piecemeal efforts to sustain and advance U.S. interests in this fragmented world?

Overall Implications

While these three worlds do not exhaust the possible, let alone probable, arrangements of the global environment in the early years of the next century, they might shed light on some drivers of the form that environment will take. These include

• the fate of democratization and market reform in Russia and China,

• the manner in which the countries of central and eastern Europe are reintegrated into the continent’s political-economic structure, and how Russia responds to that process,

• the pace and extent of European unification,

• the internal dynamics of the greater Middle East, especially the outcome of the Arab-Israeli peace process,

• the evolution of Sino-American relations and Beijing’s choices about its role in Asia and the world, and

• the rate and extent of the spread of NBC weapons.
WILD CARDS

Introduction

We have described the future world—or future worlds—according to analyses based in large measure on trends that are observable in the mid-1990s. In addition to these trends, there are a number of potential “wild cards”—unforeseen events that could cause a major discontinuity or fundamental change in U.S. national security objectives and/or the role of the U.S. military in pursuing them.

History features many examples of wild cards shaping the course of events. While the rise of National Socialism in intrawar Germany was perhaps a predictable outgrowth of the social and economic problems of the Weimar Republic, for example, the charismatic and messianic Adolf Hitler was not. Without Hitler’s leadership, the Nazi Party would likely have remained a fringe right-wing group. And had the führerless National Socialists somehow attained power, Germany’s course in the 1930s and 1940s would almost certainly have been vastly different from the tragic trajectory it in fact followed with Hitler at the helm.

One might speak of three broad classes of wild cards:

- Environmental wild cards, such as the devastation of Europe by the Black Death or the storm that crippled the Spanish Armada in 1588
- Politico-cultural wild cards, such as Hitler’s rise to power or the Russian revolution of 1917
- Techno-scientific wild cards, such as Europe’s first encounter with the New World in the late 15th century and the discovery of atomic energy in the 1930s.

It is almost in the nature of events like these that one cannot plan against them; surprise is a fact of life. However, by exploring around the edges of our normal planning futures—by closing one eye and squinting into the kaleidoscope of the future—we can at least narrow the range of events that can take us totally unawares.

The examples that follow are clearly just a selection from an almost infinite list of candidates. Clearly, too, we are not suggesting that the
United States revamp its defense-planning infrastructure to cope with these events, or their like. We present them as a way of illuminating the question, Where do we draw the line between those contingencies against which we hedge (even to the extent of commissioning studies or conducting “what-if” planning exercises), and those that fall off the table entirely? Our examples come from each of the three broad classes described above:

- **Environmental wild cards**
  - A highly lethal airborne virus (e.g., airborne Ebola)—either natural or human-engineered—emerges and kills millions.\(^{28}\)
  - Astronomers identify an asteroid or comet on a collision course with earth.
  - A powerful earthquake devastates highly populated areas of coastal California.
  - Unchecked global temperature increases cause massive crop failure and large-scale coastal flooding around the world.

- **Politico-cultural wild cards**
  - An economic depression grips the developed world.
  - A major regional ally suffers revolutionary collapse and disorder.
  - Congress repeals or dramatically revises the restrictions on U.S. military involvement in domestic law enforcement.
  - Neofascists or extreme fundamentalists come to power in a nuclear-armed country.
  - A new cold war arises along “civilizational” lines.

---

\(^{28}\)The popular movie Outbreak and Michael Crichton’s novel The Andromeda Strain both deal with this frightening possibility. For a more factual, though still speculative, treatment, see Laurie Garrett, The Coming Plague, New York: Farrar, Straus, and Giroux, 1994.
• Techno-scientific wild cards
  — An energy source is developed that provides clean, inexpensive, and virtually limitless power.
  — A new technology promises to revolutionize daily life—and warfare—as dramatically as aviation and computers did in the 20th century.29
  — New technologies cut the cost of launching payloads into earth orbit by an order of magnitude.
  — Sensor technologies render the oceans transparent.

Implications

Hedging against the future's enormous uncertainties is part of the art of force planning, and we do not presume to provide definitive answers. However, a few examples of how U.S. defense planning might take these “X factors” into account may be helpful.

First of all, the Department of Defense can and should take steps to avoid future catastrophic technological surprise. Although the military is no longer the primary motor for technological innovation, it has sufficient resources to keep abreast of cutting-edge developments in both the private and nondefense public sectors. The U.S. Air Force in particular might consider developing a “technology warning system” that would enable it to flag both evolutionary and revolutionary advances of particular salience.

Second, the military could assemble a small, joint, planning cell responsible for sketching the basic outline of possible responses to unexpected challenges. Such a group could, for example, think through how the United States—with or without large-scale support from its security partners—could “denuclearize” a country that suddenly came under the control of a radically dangerous group or individual. These plans could be tested and refined in small-scale command-post exercises and war games.

29Biotechnology and nanotechnology are two obvious candidates.
Also, defense planners—and Air Force planners in particular—should explore the ramifications of widespread, inexpensive access to space. The Air Force has already committed itself to becoming a “space and air” force by 2025, signaling much greater emphasis on the importance of “space control” in future military operations. Planning for this transition should focus not just on how the United States will exploit lowered costs to orbit payloads but how potential adversaries might as well.

Finally, and perhaps most important, the primary lesson of these wild cards—and the dozens of others that fertile minds could undoubtedly produce—is that rigid planning formulae based on a few “blessed” scenarios may be inadequate foundations for U.S. security. We suggest that U.S. interests will best be served by a strategy with built-in flexibility to hedge against the unexpected—prepared both to absorb unanticipated shocks and to exploit unforeseen opportunities.

**IMPLICATIONS FROM THE REGIONAL ANALYSES**

**Introduction**

We reproduce here excerpts from Project AIR FORCE’s three regional area studies.

**Asia**

Our findings regarding Asia can be grouped around two major propositions. The first is that the Asia-Pacific region will become the largest and perhaps the most important concentration of world economic power in the next century. Four factors lead to this conclusion:

- The region is characterized by some of the highest rates of sustained economic growth in modern history, rates that are likely to remain at relatively high levels for at least another two decades.

---

Sources of Conflict

- The wealth and prosperity of the United States will remain dependent on continued linkages with the Asian economies.

- China, Japan, and India will become important alternative centers of power in both economic and military terms, with China possibly emerging as a potential peer competitor to the United States.

- The Asia-Pacific region is home to a large and increasing concentration of technological capabilities with some emerging centers of high-technology excellence.

The second major proposition is that, despite its formidable economic power, the Asia-Pacific region will remain a relatively turbulent region beset by internal conflicts and political transitions and will experience persistent insecurity flowing from both a changing external environment and new kinds of military technologies. Again, four factors support this belief:

- Almost all the major countries in Asia are undergoing internal political transitions at the levels of both leadership change and societal transformation.

- The continent is faced with a morass of interstate conflicts over unresolved territorial and boundary issues, as well as competing claims to sovereignty.

- Asia at large is increasingly militarized in terms of burgeoning conventional capabilities and new weapons of mass destruction combined with new delivery systems.

- The long-term trend is for the traditional security regime that has maintained order in the Asia-Pacific region to be increasingly at risk.

These trends have five implications for the operations of the U.S. Air Force in Asia:

- Air and space power will remain essential for conventional and unconventional deterrence.

- Air power will become increasingly important for rapid reaction when crises break.
• Both because of and despite improving air capabilities among regional powers, U.S. Air Force assets will still be needed to fill gaps in critical capabilities, such as surveillance and long-range strike.

• Growing political constraints will inhibit en-route and in-theater access in the future.

• “NBC-shadowed” environments will pose new operational challenges to air power.

**The Greater Middle East**

Our work points toward six broad conclusions about the future security environment in the greater Middle East:

• Future sources of conflict across the Middle East will be more diverse, with shifting centers of gravity in security terms. Air Force planning must anticipate a much broader set of scenarios and missions.

• The resolution of the Arab-Israeli conflict—or its lack of resolution—will remain an important determinant of the future shape of the region.

• Many leading sources of conflict in the region will be intrastate, and security for Middle Eastern regimes will be, above all, a question of internal security. The United States must prepare for the probable loss of major security partners over the next few decades.

• Islam and nationalism will be key political drivers in the evolution of societies and the security environment. Both phenomena will complicate the outlook for security cooperation even short of revolutionary political change.

• Traditional distinctions between security in the Middle East and adjacent regions will erode as Europe and Eurasia are increasingly exposed to the retaliatory and spillover consequences of developments from Morocco to the Gulf.
• Capable niche competitors, wielding weapons of mass destruction and terrorism and employing asymmetric strategies, may well emerge, possibly supported by extraregional powers.

These findings yield the following implications for and constraints on the application of air and space power in the region:

• Persistent regional frictions and high resource stakes—oil and water—together with the limited capacity for self-defense of key allies in the region, suggest that the defense of borders will be a central task for U.S. air and space power. Attention to the low and high ends of the threat continuum—terrorism and weapons of mass destruction—should not obscure the continued relevance of large-scale conventional defense.

• Demographics, political stakes, and the modernization of economies point to the growing importance of cities as centers of crisis and conflict across the region. Beirut in 1982 may be just as important a model for the future of conflict in the Middle East as the desert war in the Gulf.

• Air and space power increasingly will be called upon to attack and defend economic targets and to wage economic warfare more generally. Middle Eastern economic infrastructures are becoming more important and potentially more vulnerable and will thus grow as potential high-leverage targets in future conflicts. Monitoring and enforcing economic sanctions and blockades against rogue regimes will also pose continuing demands for air and space power.

• The Air Force will face high demands for surveillance and reconnaissance across a broad and rapidly changing region.

• The United States will confront mounting tension between continued demands for regional presence and increasingly contentious and constrained relationships with host countries. In many cases, new arrangements for over-the-horizon deterrence will be required.

• Finally, the United States will face greater uncertainty of en-route and in-theater access in crises. Unpredictability of access and overflight argues for consideration of new hedging strategies and a portfolio approach to basing and security cooperation.
Europe and the Former Soviet Union

Europe is most likely to develop into two opposing poles, one formed by the EU in the West and center of the continent, the other consisting of Russia and possibly other countries re-integrated into a Russian sphere of influence. Although there is unlikely to be a West European superpower comparable to the United States today or to the USSR in its prime, Europe is becoming a more cohesive political and economic force.

Specific implications for the U.S. Air Force that would apply to all or most of the alternative strategic worlds include the following:

- With Russia's military in drastic decline, the United States and its allies will enjoy a decisive technological superiority over potential adversaries in Europe. This superiority will be particularly marked with respect to air power.

- NATO expansion and the proliferation of situations in which the United States might have interests without formal commitments (e.g., Bosnia), combined with continued low-level threats and instability, mean that U.S. forces will continue to be needed for conventional deterrence.

- The future situation in Europe will be fluid and will call for greater flexibility on the part of U.S. forces. For example, there might be cases in which U.S. forces could be asked to help deter attacks on countries, such as Bulgaria, in which NATO lacks bases and infrastructure.

- Future military operations and planning in Europe will be heavily influenced by the need to cooperate with allies. At least some of these allies are likely to continue to be increasingly assertive in pressing for enhanced influence in NATO, even though their actual military capabilities may still be modest.

- While Europe may evolve toward a stable West Europe–Russia bipolarity, there will be an unstable gray area between these two regions for a very long time that will be riddled with ethnic and other sources of conflict. The United States will need to maintain its capabilities for peacekeeping and other limited military operations.
As threats from the south emerge, the United States may be increasingly called upon by its allies and by its own defense requirements to develop effective counterproliferation capabilities and options. Theater missile defense could also become a growing requirement.

We now turn to the first regional study—sources of conflict in Asia.