

**Global Evolutions  
And  
The Role Of Nuclear Weapons:  
Alternative Futures For The Next Decade**

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The CNA Corporation  
May 2004

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**The Future Global System**

The global system (political-military, economic, and social) will be shaped by six major trends that can be identified currently, and which will continue to evolve over the next decade to frame the choices states, organizations, and individuals will make. These trends are independent of the purposes of states, organizations, and individuals. They are the result of a global system that can be characterized as increasing in complexity and integration along political, economic, and social dimensions.

These trends have complementary and contradictory impacts as they evolve and interact across nations, cultures, and regions of the globe. These interactions may result in different combinations of the trends to create three distinct future global security environments. Those environments are characterized here as Cooperative, Competitive, or Chaotic. This is not to say that each outcome is equally likely, or that each outcome is a pure form of one of the three alternatives. For example, a global system that exhibits greater cooperation among its leading nations, with declining chances for major global conflicts and increasing coordination of complex economic and political solutions to international problems, will probably still have a number of small regional or civil conflicts and a number of nations in economic distress. But, these conflicts and the

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existence of economic and social distress will not be at a level of intensity that threatens systemic disruption.

In each of the alternative futures, the role for nuclear weapons in the arsenals of the United States and its allies will be decidedly different. A world characterized by increased great power rivalry and regional competitions for ascendancy will help to shape strategic nuclear decisions on the size and structure of the nuclear forces that are very different from the influences of a world dominated by increasing chaos because of a never-ending war on terrorist organizations and the persistence of “rogue states” pursuing vigorous weapons of mass destruction (WMD) programs.

The objective here is not to suggest a particular policy, but to illuminate the potential directions of the evolving global system, and the choices those directions impose on nuclear weapons policy decision makers in the United States and its allies.

### **The Global Trends**

1. There will be an increasing gap between the globalization of economic interactions and the localization of political interactions. Many questions of security and economic organization will be in supranational regional and international organizations. On the other hand, populations increasingly demand local autonomy on political decisions based on cultural preservation, language, ethnicity, history, education, and governance.
2. The sovereign power of the nation-state will continue to be eroded from above by international organizations and from below by individuals, sub-state regional alliances, and private commercial enterprises. Nation-states must fulfill expectations placed on them by citizens who demand accountability in democratic institutions, yet they are increasingly powerless to counter the life-changing impacts of actors effectively beyond their control.

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3. The global community of states will be increasingly democratic. The end of the Cold War gave rise to democratic revolutions (both liberal and illiberal) in the past decade. 46% (88 out of 191) of the states of the world are rated as free and 28% (53 out of 191) of the states are rated as partly free. 24% (50 out of 191) of the states are listed as not free. This list now includes 39 multiethnic democracies.

4. The diffusion of technology will continue to increase as the mobility of capital, information, and people decrease state controls. Technology (military, business, or entertainment related) will be harder for states to control in the future. A global education system has expanded the applications of such technologies to scientists and policy-makers. Global agreements increase the pressure for states and the private sector to share technological information and spread its applications to other states in an effort to solve transnational problems.

5. The ‘Americanization’ of the global culture will continue to create both positive and negative effects inside and outside of the United States. American dominance of lifestyle, media, culture, and information markets is, and will be, a great source of power for the United States in the world political and economic systems. The United States uses this ‘soft power’ to seduce societies into the democratic, free-market world that promises to create the incomes needed to enjoy this lifestyle. There is a backlash though. This ‘Americanization’ process carries the seeds of destruction of traditional cultures and societies, especially in emerging markets and transitional states where the social fabric is weak from years of repression and a lack of civil society building or widespread legitimacy of the institutions.

6. There will be a single military superpower with dominant forces of global reach and technological superiority. Such a superpower will be the indispensable actor and shaper of the global security architecture. In a world of regional conflicts, the presence or absence of the United States (and its allies) will be a determining factor in decision about whether or not to use force and what level of force to use.

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## **Three Alternative Futures**

The global system that emerges from the interaction of these trends is likely to take one of three courses. These are not equally likely; in fact their chances of coming to pass are very different. All three however, can be reasonably projected as possible outcomes over the next ten years. Whether or not one of them is to be the future depends on the choices made by individuals faced with myriad problems presented by the above trends in their policy incarnations.

### **The Cooperative Future**

This future is characterized by the following developments:

1. The extension and strengthening of the democratic community of states.
2. The continued management of the global economy without major crises by the OECD states through legitimized multilateral organizations.
3. Economic growth at a sustainable level in the first world and the integration of key third world markets through economic development.
4. An absence of major regional conflicts in areas of vital interest to major powers.
5. Conflicts that occur in the third world will be contained and localized with minimal impact on regional stability.
6. Emerging threats to international security (proliferation, terrorism, failing states) will be contained through enhanced cooperation among major states.

### **The Competitive Future**

The competitive future will more than likely have these features:

1. The existence of strong states who challenge the efforts of the United States and its allies to create a system of global governance based on liberal principles.

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2. An absence of major theater wars, but there are increased tensions and instability from regional arms races and the threat of regional wars by aspiring regional hegemons.
3. Divergent security interests and policies among Western powers, leading to renationalization.
4. Conflicts in the third world that will remain localized and contained, but subject to outside influence and machinations by aspiring regional powers, allies, and the United States.
5. Increased economic competition between first world states, while conditions in the third world stagnate.

**The Chaotic Future**

A world of increasing chaos would look something like this:

1. The alliance that won the Cold War breaks down over economic competition and divergent security policies.
2. In this environment, major regional challengers to the interests of the United States and other liberal democracies gain power and move to change regional security arrangements.
3. Terrorism continues to plague the United States (occasionally at home and frequently abroad on installations and deployed troops) and its allies (hitting them at home).
4. Technology and information diffusion lead to the rapid spread of weapons of mass destruction in failing states and terror groups.
5. Local conflicts in the third world have dramatic spillover effects from refugees, diseases, terrorism, and ethnic conflicts.
6. The global economic system is disrupted by a breakdown of prevailing regimes in the financial sector, the trade sector, and the development sector.

## **The Role of Nuclear Weapons**

In each of the future security environments outlined above, the role of nuclear weapons and the structure of the US nuclear arsenal would be markedly different, as would the rationale for US positions on the size of the nuclear reserve stockpile, the resumption of nuclear testing, and the public rationales for maintaining nuclear weapons. Working from least likely to most likely, I will go through these issues for the competitive, chaotic, and cooperative futures described earlier.

**The competitive future**, with large nations and regional blocs jockeying for regional power in many global areas would in some ways be the easiest for the US to adapt to. The US nuclear arsenal might closely resemble its past and current structures. It would rely on a traditional triad to ensure survivability of a deterrent force against the robust nuclear forces of other nations with similar (but probably smaller forces). The targeting policy of the US forces would be very similar to the past as it would be able to concentrate on the traditional counterforce targeting of other nations' military and political assets developed so extensively during the Cold War. A large reserve stockpile could be maintained to guard against "breakout" by any one nuclear power.

These nuclear states might undertake nuclear testing in the future as they sought to ensure the reliability of new weapons systems as they built up deterrent forces opposite the US. In that case, the resumption of testing of by any one of the powers would probably result in the resumption of testing by other states in an effort to prevent vulnerability gaps. The rationale for maintaining a robust nuclear deterrent force along the classic lines inherited from the Cold War would return to that previous era. It is possible that nuclear weapons would serve as a cautionary brake on direct great power confrontations in global and regional political disputes. The need to maintain balance among great powers and the use of the weapons as bargaining pieces in any potential arms negotiations between them could also be cited as reasons for the robust arsenal. Most importantly, a competitive environment would return nuclear weapons to a central role for the US and other states as a measure of great power position.

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**If the global system moves toward a more chaotic future**, the US might choose to make significant changes in all of these areas of nuclear weapons policy and arsenal structure. Such a future could look back at the Nuclear Posture Review written by the Bush Administration as the nascent beginnings of a long-term change in US nuclear forces, their potential use, and the rationale behind their maintenance and evolution. The new targets in this future would probably be the WMD-related facilities and unsophisticated delivery systems of rogue states. The small (and usually paranoid) leadership groups of those rogue states might also be directly targeted. In addition to these targets, leaders of terrorist groups, along with remote or difficult to access terrorist facilities might be targeted if there were evidence of WMD developments or other planned mass attacks.

The US nuclear forces required for missions in this environment would most likely be smaller in number (no need to compete with other large powers), with more emphasis on strike capabilities by (1) tactical aircraft delivering highly accurate low-yield weapons (2) naval assets firing highly accurate low-yield cruise missiles, or (3) single warhead ICBMs (no need for over flight access or bases). The US might boldly try to include new warheads and delivery systems such as the RNEP system under study by the Bush Administration. These developments could lead to increased demands to resume nuclear testing to assess the new systems and assure their utility and reliability. The result of that would be the almost certain resumption of testing by other nuclear powers and the failure of the CTBT regime.

The rationale for testing and developing this new nuclear weapons posture would be very clear, but highly contested. It would be dependent on convincing the public and the international system that rogue states with small numbers of nuclear weapons or other WMD systems posed a serious threat to the security and safety of the US and its allies (and that US and allied intelligence correctly interpreted these rogues as aggressively using nuclear programs to threaten regional peace and security). And that those rogue states could be forced to change their policies or be perpetual deterred by developing a specific threat to the survival of their regimes and the weapon systems they value.

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A central point of domestic and international contention would probably be that the development of a new US arsenal (even a smaller, more focused arsenal) would be more “usable” and therefore lower the threshold for the use of nuclear weapons in a chaotic world of aggressive rogue states and a continuing global war against terrorism. The rationale for this arsenal would have to be based on an old argument against self-deterrence (the political strictures against using large weapons with high collateral damage), and the argument that when faced with “usable” and flexible nuclear forces, aggressor states can not be certain that they will not face catastrophic counterattacks or escalation in any confrontation.

**Finally, the cooperative evolution of the global system** presents the greatest dilemma for the maintenance of current nuclear force postures and the evolution of US and allied nuclear forces in the future as systems age and new ones are required. In such an environment, how would the “need” for robust nuclear forces be explained, what would such a force look like, and what rationale would be offered for targeting policies or the resumption of testing?

A largely cooperative evolution of the global system would put pressure on the US to reduce its deployed number of nuclear weapons and the numbers maintained in reserve (if there are no big threats from other states and if the number of rogue states is declining and terrorist acts are local and do not disrupt the global system, then why keep a large number of weapons?). Similarly, why should the US break the current regime embodied by a consensus adherence to the CTBT regime by developing new nuclear systems that require a resumption of testing? The argument would be that such testing would serve as a declaration of US exceptionalism and an invitation to other states to resume testing and development of new systems and risk a new round of proliferation and raised tensions between regional rivals like India and Pakistan and China.

What would a US arsenal look like in this increasingly cooperative world? It would almost certainly be smaller in number. Fewer weapons would be deployed and they might be on lower levels of alert. A reserve stockpile would be maintained, but it would

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likely be a much lower numbers, as the time needed for any state to reconstitute its forces through testing and production lengthened and transparency increased among the major powers. The structure of the arsenal might be very conservative. It would be dominated by legacy systems and incremental changes to those systems as designers relied on proven technologies in the absence of testing.

The focus of US and international efforts would be redoubled on non-proliferation and counter-proliferation in a few specific cases, and on the gradual reduction in numbers of weapons among those states already holding them. The rationale for maintaining the US nuclear arsenal would be based on maintaining the US position as the world's strongest superpower. No nation, given the current state of world politics (or any future cooperative system absent a permanent state of world peace), would give up its nuclear weapons so long as other states maintained their arsenals. Nuclear weapons would exist as an "insurance policy" against the accidental use, the leakage of weapons from unsecured sites, and the spread of nuclear technology and knowledge (the genie can not be put back in the bottle). Nuclear weapons become "part of the background" of US military power (real and reputational) that under girds a global security regime.

## **Conclusion**

Global trends are directing the world toward a more cooperative future. While this is not a direct, conclusive projection from all of the trends, it is the most likely path for global politics in the next decade. The past ten years have indicated that chaotic disruptions to the world system can be contained by concerted action among the major powers.

- Global economic problems have been met with cooperative measures of the G-7, the OECD, the IMF, Central Banks, and informal arrangements between states. There have been some setbacks in the WTO between the US and Europe, and the last round of trade talks in Mexico did not produce a breakthrough between the West and the Third World, but these are generational projects that must be viewed within the larger growth in world trade, the inclusion of most of Asia in the system, and the coordination of positions between the US and Europe that took place in Mexico.

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- Global security threats from rogue states have decreased, as has their number. The rogue states have been reduced to Iran and North Korea, with some policymakers stretching the definition to include Syria and Cuba.
- The chief security threat to the U.S. and allies, global terrorism, has been hurt by concerted military and police actions from Afghanistan to Europe and Southeast Asia. Terrorism, while a more diverse threat than the one faced in the Cold War, is far less a mortal threat. It is the tool of the weak and it does not pose an existential threat to the West. Local conflicts in Europe, Africa, and South Asia have been isolated and contained.
- The UN, NATO, and ad hoc "alliances of the willing" have involved the United States, its allies, and other regional actors in many peacekeeping and nation-building efforts. Preventive deployments of peacekeepers have taken place to limit the spread of conflicts to neighboring states, and force has been used to enforce some minimal international standards against aggression and ethnic oppression.
- While disagreements over the intervention in Iraq dominated relations for a year, the US and Europe have moved forward on many other fronts to cooperatively address security issues from NATO to Iran to Africa.

The utility of nuclear weapons in a cooperative future lies, not in their “use”, but in their role as insurer. A cooperative future does not mean the end of conflict, nor does it mean that international tensions will disappear. In such an environment, nuclear weapons possessed by the major powers are largely symbolic (signifying status) in relations between major powers. Whereas, their possession by near-major powers (India, Pakistan, and Israel) serves as a reminder that these countries face unique security dilemmas or that they are still at a stage of nuclear relations passed through by the other nuclear powers during the Cold War.

A wild card in this future is the proliferation of nuclear weapons to “rogue states” or terror groups that can never be totally eliminated. To rogue states, nuclear weapons are believed to be the ultimate tool for regime survival. Again, nuclear weapons would have

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utility, but without much rationale for “use”. The maintenance of a small number of weapons (<less than 20 say) would be indicative of a belief that major powers can be deterred from threatening regime survival even if they face a minimal deterrent force. Terror groups (especially those with a “suicide bomber” mentality) may not be easily deterred. Dealing with this threat by denying them access to both weapons materials and parts or to finished weapons from various sources, will be a chief concern for the future. Will terror groups have more than one bomb? Will a single nuclear weapon threat against an Israeli, American, Japanese or European target be enough to destroy any of these societies, or the “West” as a whole? The answer to both questions is likely to be “no”.

Fortunately, the cooperative future of great power coordination against “rogues” and terror groups is already being foreshadowed by the extension of the Nuclear Suppliers Group, the growing membership and acceptance of the Proliferation Security Initiative, the expansion of the Cooperative Threat Reduction program from a US-Russia program to one that includes all members of the G-8, as well as, evolving UN resolutions and international and national law against nuclear proliferation. An international consensus is also forming on strengthening the IAEA for a future where the reprocessing and production of enriched nuclear materials is under tighter control and becomes the firebreak for nuclear proliferation. (The trade off would have to be international guarantees of fuel supplies for civilian reactors and further reductions in great power arsenals.) There is also cooperation among the military, police, and intelligence forces of the major powers on this issue.

By 2020, these developments could form the core of a better non-proliferation regime and the number of nuclear powers could be at no more than 10. They could also allow the US and Russia to further reduce and restructure their arsenals. While new and smaller weapons might require testing, increased transparency and lower numbers overall might be a good exchange. While some might see such a compromise as legitimizing nuclear weapons and increasing their attractiveness and their chances of “use”, there are other conclusions that can be reached. The caution displayed by the US and Russia after the

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near-miss of the Cuban Missile Crisis may be a lesson for India and Pakistan. The arms control agreements of the 1980s may serve as role models of transparency for future multilateral efforts in the future. Restructured and reduced arsenals may make their “use” less likely, but enhance their “utility” as insurers of a cooperative future.