

Future Strategic Environment in an Era of Persistent Conflict

Major Paul Oh

[This article is a draft for discussion for USMA Senior Conference, June 2008. Please do not cite without permission of the author.]

Framing the future strategic environment in an era of persistent conflict is an immense challenge. Unlike the Cold War era, the United States no longer has an overarching paradigm through which it can view the world. Non-state actors and irregular warfare dominate the attention of America as it continues to fight insurgencies while coping with terrorist threats like Al Qaeda. Traditional threats persist in places like the Korean peninsula while the rise of China presents the prospect of a future strategic competitor. Increasingly global forces, whether in economics, environment or health, are having a greater impact on citizens around the world. Domestically, there is uncertainty on how to best structure, fund, and oversee the national security apparatus to meet these future challenges. No overarching paradigm suffices; the United States is left with the prospect of racing from one crisis to the next.

Various studies have presented forecasts of the future to help policymakers plan to meet the national security challenges of the next twenty years and beyond. Among the most recent are:

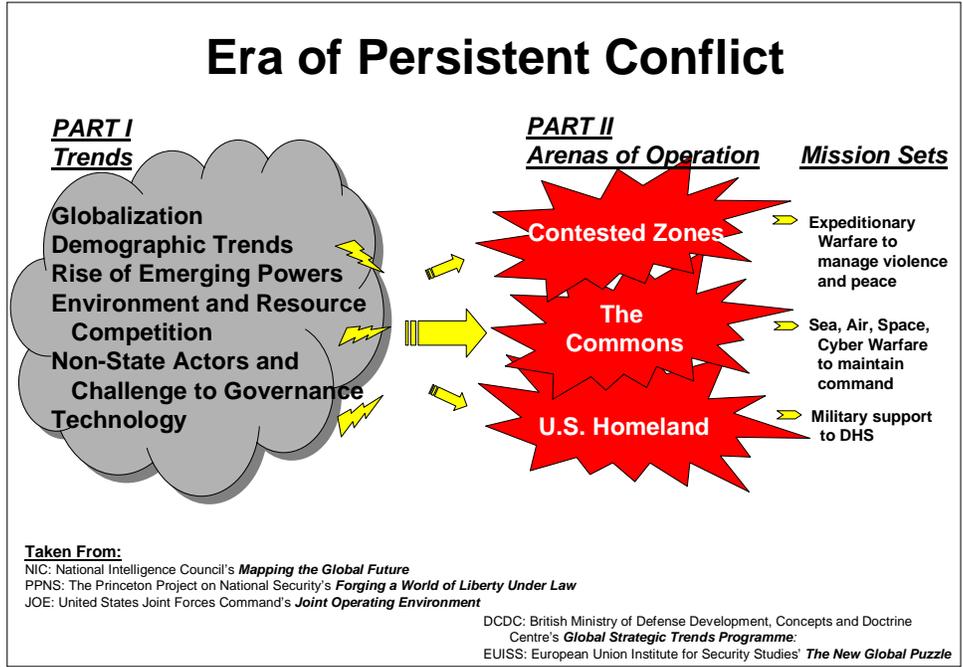
- *Mapping the Global Future* by the National Intelligence Council (NIC)
- *Joint Operating Environment (JOE)* by United States Joint Forces Command
- *Forging a World of Liberty under Law* by the Princeton Project on National Security (PPNS)
- *The New Global Puzzle* by the EU Institute for Security Studies (EUISS)
- *Global Strategic Trends Programme* by the British Ministry of Defense Development, Concepts, and Doctrine Centre (DCDC)

This paper serves two purposes:

Part I: First, it surveys these studies to highlight some of the primary trends that will characterize and shape the future strategic environment. These trends are globalization, demographics, rise of emerging powers, environment and competition for resources, non-state actors and challenge to governance, and advances in technology. These trends will present complex and multidimensional challenges that may require careful use of the military in conjunction with other instruments of national powers.

Part II: Second, the paper examines military response to this future strategic environment by examining three different mission sets the United States will most likely be involved in-- expeditionary warfare to manage violence and peace, defense of the command of the commons, and homeland defense. First, the land force will spearhead the expeditionary missions to “contested zones”¹ to protect American interests abroad. Second, the sea, air and space forces will lead in countering threats to the American command of the commons – air, sea, space, and cyberspace, where the American military currently has dominance. Finally, the military will support the interagency effort in Homeland Defense as technological advances weaken the traditional natural barriers to

attack on U.S. soil. This section will attempt to define the operating environment for these mission sets and broadly evaluate the likely threats that the United States will face.



Part I: Future Trends of the Next Twenty Years

Globalization

The Good...

In *Mapping the Global Future*, the NIC calls globalization the overarching “mega-trend” that will shape all other trends of the future.² Globalization is an amorphous concept, but here it is meant in its broadest definition – primarily the more rapid exchange of capital, goods, and services, but also information, technology, ideas, people, and culture.³ Markets for goods, finance, services, and labor will continue to become more internationalized and interdependent.⁴ Such integration will bring immense benefits to the world as a whole. Globalization will continue to be the engine for greater economic growth. The world as a whole will be richer with many lifted out of poverty. It is unclear, however, whether a richer world where America has less relative economic power will be better for the United States in terms of its global influence.⁵

Barring major shocks, the global economy is expected to be 80 percent larger in 2020 than in 2000 with average per capita income 50 percent higher.⁶ According to the EUISS, the world economy will grow at a sustained annual rate of 3.5 percent between 2006 and 2020.⁷ The United States, EU, and Japan will likely continue to lead in many high-value markets, with the United States continuing to be the main driving force as the world’s leading economic power. Emerging economies will continue to do well, with the

Chinese and Indian GDP tripling by 2025.⁸ The percentage of the world's population living in extreme poverty will likely continue to decline.⁹

The Bad...

The benefits of globalization will not be global. The harsh realities of competitive capitalism will produce definite winners and losers,¹⁰ and result in increased social and economic stratification both internationally and within countries. Internationally, these losers will be concentrated in certain areas of the “arc of instability,” a “swath of territory running from the Caribbean Basin through most of Africa, the Middle East, and Central and Southeast Asia.”¹¹ Here, the gap between those countries benefiting economically, technologically, and socially and the countries that are left behind will continue to widen.¹² And although absolute poverty is declining worldwide, this will not be the case for these regions. In sub-Saharan Africa, for example, people living in absolute poverty – less than one dollar a day – have been increasing from 160 million in 1981 to 303 million today.¹³ Poverty and aggravated income inequality will remain a monumental challenge in the next twenty years.

DCDC notes that “absolute poverty and the comparative disadvantage will fuel perceptions of injustice.”¹⁴ The resulting disparities will be clearly evident to all because of globalized telecommunications. Populations of the “have-not” countries that perceive themselves to be losing relative ground may continue to be breeding grounds for extremist and criminalist ideologies that lead to violence within and outside that society.

Greater economic interdependence will lead to greater political interdependence. Although such a scenario greatly diminishes the prospects of major industrialized war between two nations, it also means that what happens in one part of the globe will impact the other parts of the globalized world. Economic shocks will reverberate throughout the globe. A drastic downturn in the U.S. economy, for example, could cause a global economic depression¹⁵ perhaps requiring global or regional political solutions.

...And the Ugly

The new era of globalization also means that we cannot depend on geography to shield ourselves from the multiple problems of the developing world. This was made clear in 9/11 when the hate espoused by the extremist ideology of radical Islam manifested itself in attacks on U.S. soil. But the dangers of interdependence are manifested in other areas as well. Effects of climate change, disease and pandemics originating from remote parts of the world will affect the United States.

Infectious disease is already the number one killer of human beings.¹⁶ AIDS is a scourge in most of the world and poses an extreme societal threat in portions of sub-Saharan Africa. Even more frightening is the threat of a global avian influenza pandemic.¹⁷ The ever increasing connectivity of nations resulting from globalization means that a strain originating in a remote part of an undeveloped country can spread throughout the world at a frightening pace. A pandemic would also cause severe economic hardship in a globalized world, even if a disease is physically kept out of the United States.

Demographic Trends

Developed countries

The world's population is estimated to increase by 23.4 percent from 2005 to 2025.¹⁸ The population growth in the developed world, however, will remain relatively stable. The United States will grow to 364 million citizens by 2030 while the EU-25 will grow from 458 million to 470 million in 2025 before declining.¹⁹ Japan and Russia will experience a decrease in population, with Japan's population falling from 128 million to 124.8 million and Russia's population falling from 143.2 million to 129.2 million within the next twenty years.²⁰

Developed countries will also experience significant population aging. In the European Union, the ratio of employment age citizens (15-65) to the retired over 65 will shift from about 4 to 1 in 2000 to 2 to 1 by 2050.²¹ Japan will approach 2 to 1 by 2025²², and the median age will increase from 42.9 to 50 years.²³ This trend will fortunately not have as severe an impact on the United States due to higher fertility rates and greater immigration.²⁴ Less conducive to large-scale immigration, Europe and Japan could face societal upheaval as they try to assimilate large numbers of migrant workers from the developing world. These factors will soon greatly stress the social welfare structure of these countries while challenging their ability to maintain economic productivity or to fund discretionary spending, such as on defense spending and foreign assistance.

Developing countries

The overwhelming portion of global population growth (90 percent) by 2030 will occur in developing and poorer countries.²⁵ Population growth in these areas will be 43 to 48.4 percent in sub-Saharan Africa, 38 percent in the Middle East/North Africa region, 24 percent in Latin America, and 21 percent in Asia. Nine out of ten people will be living in the developing world in the next twenty years.²⁶

In contrast to the developed world, a significant portion of the population growth will be the "youth" of the region with a "youth bulge" occurring in Latin American, Middle East, and Sub-Saharan Africa.²⁷ About 59 percent of the population of sub-Saharan Africa will be under 24 years by 2025.²⁸ In the Middle East and North Africa area, the working-age population will expand by 50 percent and 40 percent respectively. The nexus of a bulging youth population and the low socio-economic conditions in the developing world will challenge governments to provide employment for a young and undereducated populace with little employment opportunities, setting up the potential for violent conflict. As a recent *Economist* article notes, these young men without "either jobs or prospects" will trade "urban for rural poverty, head for the slums, bringing their anger, and machetes, with them."²⁹ In the last two decades, 80 percent of all civil conflicts took place in countries where 60 percent or more of the population was under thirty years of age.³⁰

Migration

Significant portions of the global population will be on the move, much of it to the cities. By 2030, 61 percent of the global population will live in cities as compared to 47 percent

in 2000.³¹ And while the urbanization ratio will be greater in developed countries compared to developing countries (81.7 percent versus 57 percent), the developing countries will struggle to control the transition to urban societies.³² Shantytowns in “mega-cities” struggling with crime and disease will likely proliferate. Migration to relatively wealthier countries will also continue as workers search for better economic opportunities. The DCDC reports that the number of people living outside their country of origin will increase from 175 million in 2020 to 230 million by 2050.³³ Environmental degradation, natural disasters, or armed conflicts will also forcibly uproot populations. How both the developing and developed countries absorb the influx of migrants may determine the level of conflict associated with these movements.

Identity

How segments of the global population identify themselves may drastically change in the next twenty years. Individual loyalty to the state and state institutions will become increasingly conditional.³⁴ Identity politics will increasingly be based on religious convictions and ethnic affiliations.³⁵ Religious identity may become a greater factor in how people identify themselves. Although Europe will remain mostly secular, religious practices will continue to spread in areas as diverse as China, Africa, Latin America, and the United States. In areas of the developing world, Islam will continue to increase as the overarching identity for large segments of some populations. In other regions, ethnicity and tribal loyalties will continue to be the dominant form of identification.

Rise of Emerging Powers

The rise of powerful global players will reshape how we mentally map the globe as we move increasingly towards an increasingly multi-polar world. *Mapping the Global Future* likens the emergence of China and India to the rise of a united Germany in the 19th century and the rise of the United States in the 20th Century.³⁶ The global center of gravity will shift steadily to the Pacific.

China

China will become a powerful actor in the global system. The rise of China has been called “one of the seminal events of the early 21st century.”³⁷ China’s economic and diplomatic influence will continue to expand globally. Its gross national product (GNP) is expected to surpass all economic powers except the United States within twenty years.³⁸ Its demand for energy to fuel this growth will make it a global presence as it ventures out to secure sources of energy. In East Asia, China is likely to wield its growing influence to shape the region’s “political-institutional contours” to build a regional community that excludes the United States.³⁹ All this will likely be accompanied by a continued Chinese build-up of its military to reinforce its growing world power status.

Whether China continues to pursue a peaceful rise will have a profound impact on the course of international affairs in the next 30 years. The rise and fall of great powers has been one of the most important dynamics in the international system, a dynamic that is often accompanied by instability and conflict.⁴⁰ DCDC believes China will approach

international affairs with a fair amount of pragmatism, but will face daunting challenges as it develops. It may exert its growing hard and soft power to either protect its growth or ensure internal stability. When China does establish itself as a global power, it may be less restrained in its conduct of foreign affairs.⁴¹

Other Powers

Depending on governance and policy, other nations may also play a greater role in the international arena. Among those mentioned in the studies are India, Russia, Indonesia, South Africa, and Brazil.⁴² Depending on its ability to achieve greater political cohesion, a more united European Union could also play a greater role, especially by serving as a model of global and regional governance.⁴³ Another possibility would be the rise of a rival alliance.⁴⁴

The rise of these powers may mean a decline of relative power of the United States. Though the United States would continue to play the major role in international affairs, its overwhelming dominance may decline. In the next twenty years, we may see a more multi-polar world with political, economic, and military power diffused throughout the globe and America's ability to influence dialogue in key global issues greatly diminished.

Environment and Competition for Resources

Environmental degradation

Scientific consensus increasingly points to human activities as a main contributing factor in global warming. Although climate science is complex and the estimates of probable damages differ, the possibilities of catastrophic effects caused by global warming seem very real. Major consequences are likely due to “melting ice-caps, thermal expansion of the oceans, and changes to ocean currents and flows.”⁴⁵ Possible consequences on land include increased desertification, reduced land for habitation and agriculture, spread of diseases, and an increase of extreme weather events.

The worst-hit regions will likely face political, economic, and social instability.⁴⁶ These regions will be mostly within the arc of instability, impacting the non-integrated areas of the globe and particularly worsening the already marginal living standards in many Asian, African, and Middle Eastern nations.⁴⁷ The likelihood of more failed states collapsing will increase as weak governments are unable to cope with decreases in food and water and increases in disease and violent uprisings.

Competition for resources

Exacerbating the environmental concerns is the ever-increasing competition for resources. As countries grow richer and modernize, the demand for resources will greatly increase in the next twenty years. According to the International Energy Agency, demand for energy will likely grow by more than 50 percent by 2035 with fossil fuels projected to meet 80 percent of this increase.⁴⁸ The world economy will remain heavily dependent on oil through 2025 at a minimum.⁴⁹ Similarly, global consumption of natural gas will increase by 87 percent.⁵⁰ The United States has so far shown little inclination to tackle seriously its addiction to oil. Growing Asian powers' consumption of oil will also

sky-rocket; China will have to increase consumption by 150 percent and India by 100 percent by 2020 to maintain current growth.⁵¹ Such explosive consumption will exacerbate global warming in the absence of a global framework to tackle the problem.

As a result of global growth, competition for these resources will intensify as the United States and other major economies vie to secure access to energy supplies. The competition will bid up energy prices, making it even more difficult for developing nations to afford minimal energy for their populations. As Isaiah Wilson notes, resource security has persistently been the primary objective of national security and military strategies of advanced nations. Quest for this security will continue to draw nations into military and economic engagement in the “arc of instability.”⁵² The United States will continue its involvement in the Middle East for years to come. China will continue to build bilateral agreements with various nations in Africa to secure their oil supply.

The degradation of our environment and increased economic growth of nations will cause competition not only for traditional energy sources, but also for basic necessities like food and water. Major portions of the population will be living in areas of “water stress” and the amount of arable land may diminish.⁵³ The consumption of **blue water** (river, lake and renewable groundwater) will continue to increase, depriving even more people of access to clean drinking water.⁵⁴ Concurrently, environmental degradation, intensification of agriculture, and a quickened pace of urbanization will all contribute to the reduced fertility of and access to arable land.⁵⁵ Increased reliance on “bio-fuels” to provide for growing energy needs will reduce crop yields devoted to food supplies. There will also be increased competition for other food sources, to include the dwindling fish stocks.⁵⁶ Even now, African fishermen are bemoaning the disappearance of their livelihood while Europeans bemoan the increasing prices for fish in restaurants.⁵⁷

Non-State Actors and Challenges to Governance

Scholars view the rise of non-state actors as a fundamental challenge to the Westphalian-based international system.⁵⁸ The United States, as the leader and architect of the system, has been and will continue to be the primary focus of this challenge. Non-state actors, who do not see themselves bound by borders of a nation, are likely to continue to grow in strength and lethality. Small, empowered groups will be increasingly able to do greater things while states’ near monopoly on information and destructive power continues to diminish.⁵⁹ Their cause has been aided by various factors. The NIC describes the “perfect storm” in certain regions of the underdeveloped world as the combination of weak governments, lagging economies, religious extremism, and the youth bulge gives fuel to extreme movements.⁶⁰

Al Qaeda remains a formidable near term threat. Recent testimony by American intelligence officials reported that Al Qaeda is continuing to gain strength from its sanctuary in Pakistan and “improving its ability to recruit, train, and position operatives capable of carrying out attacks inside the United States.”⁶¹ Even if Al Qaeda is neutralized, the NIC believes that the factors that gave rise to Al Qaeda will not abate in

the next 15 years. It predicts that by 2020, Al Qaeda will be superseded by “similarly inspired but more diffuse extremist groups.”⁶²

Challenges to Governance

Non-state actors such as Al Qaeda will play a major role in spreading extreme and violent ideologies. Fueled by the perceived injustices in a globalized world and by frustration with the oppressiveness of regional authoritarian regimes, major segments of the population in the arc of instability may rally to the promises of radical Islam. These forces may continue to attack the institutions of traditional state government through violent means. These forces may also transcend national boundaries to form a transnational governing body dedicated to terrorism and jihad. The NIC, for example, presents a possible scenario where political Islam provides a context in which a Sunni Caliphate forms and draws on Islamic popular support to challenge traditional regimes.⁶³ PPNS presents another scenario where a radical arc of Shi’ite governments rule from Iran to Palestine and sponsor terrorism in the West while seeking to destabilize the Middle East.⁶⁴

Whatever scenario evolves, governments in the arc of instability will face daunting challenges to stability. They will have to deal with the adverse effects of globalization, climate change, unemployment of their increasing youth populations, and a new form of identity politics. To succeed, they will need to fight their own internal corruption and reform their inefficient and authoritative governments. They will need to do this in the presence of a radical ideology that fiercely attacks their legitimacy and any connections to the western world.

International crime will also be a factor that challenges governance.⁶⁵ This criminal activity will continue to increase in sophistication and lethality as enhanced communication technologies and weapons continue to proliferate.⁶⁶ Their activities will increasingly be intertwined with civil conflict and terrorist activities as they leverage the benefits of increased globalization and alliances with states and non-state actors, to include terrorists.

Non-state actors may also provide opportunities for increased cooperation to meet these future challenges. International organizations, regional organizations, and non-governmental organizations will continue to grow in capacity to varying degrees. Although governance over major problems like trade or international crime has increased due to expanded transnational government networks⁶⁷, new collaborative institutions and mechanisms will be required to cope with increasingly complex global and regional problems.⁶⁸ These networks will need to continue to be strengthened to find solutions to globalized problems.

Technology

Advances in technology elicit great hope as well as great fear, with major breakthroughs having an impact on every aspect of our lives. We can expect further progress in information technology and nanotechnology, innovations in biotechnology, and increased

investments in research and development.⁶⁹ Faster computers combined with elements of nanotechnology and biotechnology may improve our ability to deal with society's daunting challenges, to include human health, environmental issues, and malnutrition.

On the other hand, the availability and ease of transfer of technology allows broader access to previously unavailable weapons. The ease of use of off the shelf, commercial technology has also exacerbated to problem of proliferation.⁷⁰ This is most dangerous in terms of weapons of mass destruction. PPNS asserts that the "world is on the cusp of a new era of nuclear danger."⁷¹ North Korea may very well possess nuclear weapons. Despite the findings of the recent United States National Intelligence Estimate, it seems likely that Iran is still determined to acquire the ability to build nuclear weapons. If the international community cannot reign in these countries, other countries in the Middle East and East Asia will likely also attempt to join the nuclear club.⁷²

Countries will also continue to pursue chemical and biological weapons, as well as delivery capabilities for these weapons. Chemical and biological weapons can be integrated into legitimate commercial infrastructures to further conceal a country's capabilities.⁷³ At the same time, more countries will be able to acquire ballistic and cruise missiles, as well as unmanned aerial vehicles. By 2020, the NIC believes that both North Korea and Iran will have Inter-Continental Ballistic Missile (ICBM) capabilities, and several countries will develop space launch vehicles (SLV).⁷⁴ A preview of such capabilities came on 5 February 2008 when Iran launched a Kavoshgar-1 rocket into space using technology similar to that needed for long-range ballistic missiles.⁷⁵

Concurrently, many in the United States fear the waning of American domination in research and development of new, emerging technology. The number of American Ph.D. engineering students is decreasing while the number of foreign students returning to their countries from U.S. universities is on the rise.⁷⁶ At the same time, the *Economist* notes that the domestic trends in American politics and immigration policy are keeping the world's best and brightest talents from "darkening America's doors."⁷⁷

Technology and Terrorists

The potential nexus of terrorist groups and nuclear weapons is perhaps the most frightening scenario for national security experts. The increasing ease with which terrorist elements can acquire weapons to deliver a nuclear attack on the United States presents a nightmare scenario. Graham Allison notes that there are more than two hundred addresses around the world from which terrorists can acquire nuclear weapons or fissile material.⁷⁸ Russia, Pakistan, and North Korea are among the likely sources. If terrorists cannot acquire a nuclear bomb, Allison also notes that the technology and tools are now available for terrorists to build their own.⁷⁹ The difficult task, in this scenario, would be acquiring the fissile material needed for a home-made bomb. There is evidence that Al Qaeda attempted to acquire a nuclear weapon for an attack on the United States.⁸⁰ The prospect of Iran gaining nuclear capabilities is also of great concern in part because of the capabilities of its proxy force, Hezbollah.⁸¹

Part II: Operating Environment and Threat Evaluation

Part II of this paper explores the ramifications of these trends for each type of mission the U.S. military will undertake. Specifically, it explores the operating environment and the nature of the threat that is most likely for each mission set. There are obvious limitations to such attempts to categorize. First, missions will likely be joint and/or interagency ventures with success not achieved purely through the application of military force. Second, the labeling of these challenges as “threats” inherently implies an adversarial relationship, which may not always be the case. The emergence of great powers, for example, may not necessarily lead to adverse conditions in international affairs. Third, some challenges do not fit nicely into this categorization, causing a non-identification of an emerging threat. The emerging radical Islamic community in Europe may be an example.

Such a categorization does highlight, however, the vastly different types of missions our military forces may be involved in during the next twenty years. With tighter budgets for discretionary spending, the nation will need to make difficult decisions regarding prioritization of missions and the most efficient and effective use of our military forces. Examining and analyzing by mission sets allows each service to plan accordingly, providing a basis from which to adapt to the myriad of possibilities that the future strategic environment may hold.

So what do these trends mean for our military forces? American expeditionary forces will need to enter what Posen labels “contested zones.” These zones correspond to areas in what the Pentagon has labeled the global “arc of insecurity.” Any mission to these zones will be both dangerous and difficult as the combinations of political, physical, and technological facts negate many of American military advantages. Although this will have to be a joint venture, land forces will likely spearhead such missions. The air, sea and space forces, on the other hand, will lead the effort in countering threats to the “command of the commons.” The rise of emerging powers and advances in technology will mean countries will venture into the commons where the U.S. military has traditionally maintained dominance. Finally, all forces will continue to support the Department of Homeland Security (DHS) and other federal agencies in defending the homeland against non-traditional actors. For each mission type, the U.S. military will face increasingly capable threats seeking to take advantage of any vulnerabilities.

Expeditionary Warfare to Contested Zones

Though both the Navy and Air Force have begun structuring their forces for expeditionary warfare, the land force will likely spearhead the missions into the “contested zones,” located mainly in the “arc of insecurity.” These areas, running from the Caribbean Basin through most of Africa, the Middle East, and Central and Southeast Asia, will disproportionately involve the losers from globalization.⁸² In fact, these zones are where the many trends of the next twenty years will converge. Increased poverty or at least relative poverty, large numbers of unemployed youth, environmental degradation,

competition for resources, emergence of deadly non-state actors, failed states, and proliferation of devastating technology will be the most evident and severe here.

The American expeditionary force may be drawn into these areas for a variety of reasons. First, these areas will continue to be breeding grounds and safe-havens for extremist ideologies and criminal elements. Second, increased global demand and competition for energy sources could demand military intervention in these contested zones. Third, tribal wars or genocide may oblige the United States to join multi-lateral forces deployed to stabilize failed states or regions so to preclude the spread of any effects. Fourth, humanitarian interventions may increase if natural or man-made disasters cause mass suffering or death. In these zones, the American forces will be involved in both the management of violence and management of peace, forcing it to “fight” wars in a different fashion.

Posen notes that political, physical, and technological facts will make the missions into these areas particularly difficult. First, local actors have stronger interests in a war’s stakes than the United States. Second, our adversaries will have a plentiful supply of males of fighting age. Third, they will have the “home court advantage.” Fourth, they have studied the way the U.S. military fights. Fifth, the weapons required for close combat are inexpensive and plentiful.⁸³ In addition, conflicts that involve more than battles between traditional armies will also require non-traditional expertise in areas like cultural awareness,⁸⁴ working with and training allied nations, interagency operations, and diplomacy. Major General Robert Scales goes as far as stating that the next World War will be the social scientists’ war, describing the wars to follow as “psycho-cultural wars” requiring officers with knowledge based on the discipline of social sciences.⁸⁵ These factors negate the traditional advantages of the American way of war built on technological and organizational expertise.

Operating Environment

What will the operating environment look like for our expeditionary forces in the contested zones? A survey of the literature suggests that U.S. forces will have to operate in an environment that is characterized by the following factors:

- *Highly Urban Environment/Megacities* - 60 percent of the global population is expected to live in cities by 2030.⁸⁶ Some of these cities will grow into megacities containing huge shantytowns. They may be characterized by a high crime rate, ineffective or corrupt police force, and high level of instability. Some megacities may collapse into chaos.⁸⁷
- *Extreme Environments* – These regions may become increasingly inhospitable due to human activities and climate change. There may be less access to basic resources needed for survival, like food and water. These conditions could often obligate U.S. forces to provide such resources to populations in countries in which it operates.
- *Communicable Disease* - They may also have high level of communicable disease, such as HIV/AIDS, malaria, hepatitis, and tuberculosis.⁸⁸

- Endemic Hostility – There may be underlying hostility among the populace caused by transnational or inter-communal conflicts or virulent anti-American ideologies, such as militant Islam.⁸⁹
- Collapse of Functioning State –U.S. forces may have to operate in regions where the government has failed and local warlords use extreme violence to control populations.⁹⁰
- Non-military Partners –U.S. forces will have to understand how to work with other government agencies and elements of society to combat the adversary.⁹¹ The management of peace will undoubtedly be an interagency affair as the integration of the instruments of national power become increasingly crucial for success. The presence of media and internet coverage will also complicate missions. The military will need heightened awareness of legal implications and Rules of Engagement.⁹²
- Cheaper and Deadlier Weapons – Adversaries will continue to benefit from wide availability of weapons, and they will continue to modify what is cheaply available to cause maximum damage on U.S. forces.
- Weapons of Mass Destruction – Advances in and proliferation of technology may make use of nuclear, chemical, and biological weapons on U.S. forces a possibility.
- Greater Collaboration with Developing Country Militaries - Demographic decline and fiscal pressures will result in reduced military capabilities among developed-country allies. Future coalitions will increasingly rely on less well-trained and poorly-equipped developing country forces that may not share the U.S. professional military ethic.⁹³
- Media on the Battlefield - The media will likely cover the actions of the expeditionary force on the ground and communicate them in real time to a global audience.⁹⁴
- Humanitarian Disasters – Increasingly devastating natural disasters caused by climate change could continue to require more military humanitarian assistance.

Nature of the Threat

- Terrorists – Terrorists will continue to target U.S. interests abroad, seeking soft targets to send messages and inspire similar groups to action.
- Paramilitary Forces – These forces will be intermingled with the local population and could be allied with terrorist groups. The United States will face rebel groups, gangs, insurgents, and private military companies (PMCs).

- *Tribal Forces* – Armed tribal forces may especially be a challenge as they have the potential to switch from being adversaries to allies depending on American strategy and tactics and on shifting local political calculations.
- *Criminal Elements* – Weak governance will allow both transnational and local criminal elements to thrive. Drug cartels will continue to be an international presence and the most notorious criminal networks.⁹⁵
- *Traditional Militaries* – Although hostility with another state may be rare, increased competition for resources may cause state-to-state conflicts.

Maintaining the Command of the Commons

Posen describes the “commons” as those areas that no state owns but that provide access to much of the globe. It is analogous to the command of the seas, though Posen also includes command of the air and space.⁹⁶ The JOE includes the command of cyberspace as well. According to Posen, “command of the commons” means that the United States gets vastly more military use out of the commons than others, that the United States can generally deny use to others, and that others would lose access if they attempt to deny use to the United States. The command of the commons has been “the key military enabler” of America’s global position and has allowed the United States to better exploit other sources of power.⁹⁷

U.S. sea, air and space forces will lead in responding to these challenges to the command of commons. Though the command of the commons will most likely remain uncontested in the near and medium term, the rise of emerging powers could lead to competition over time. Posen notes that the sources of U.S. command include American economic resources and military exploitation of information technology.⁹⁸ As American economic power begins to decline relatively and as advanced technology becomes more diffused, other nations may exploit these factors to become viable contenders. Already, nations have launched missiles into space, started investing in blue water navies, and increased their cyber warfare capabilities.

Operating Environment

- *Increased Interest in Space* – Emerging powers will continue to expand their space programs. Advances in technologies will enable more nations to launch rockets and satellites.⁹⁹ The United States will be increasingly concerned about capability of nations to convert this technology into ICBMs as well as weapons threatening to U.S. space capabilities.
- *Nuclear Proliferation* – As more countries acquire nuclear weapons, American ability or proclivity to intervene in various areas of the commons (or contested areas) may decline due to the threat of nuclear retaliation.

- Missile Technology Proliferation – Missile technology proliferation may deny certain areas of the commons to the United States. Examples include sea lanes in the Straits of Hormuz, the Suez Canal, and the Strait of Malacca.¹⁰⁰
- Connectivity Vulnerabilities – Increased automation and reliance on information technology leave the United States more vulnerable to cyber-attacks as adversaries use techniques such as worms, viruses, Trojan horses, botnets, or electromagnetic pulse (EMP).¹⁰¹

Nature of the Threat

- Emerging Powers -The rise of great powers will feature nations with increased conventional military capabilities like that of the United States. They will possess “information-enabled network” forces as well as naval forces with air and undersea capabilities.¹⁰² Nations may be able to challenge command of their regional sea lanes, as well as U.S. dominance in space and cyberspace.
- Terrorist or Criminal Elements – Non-state actors may be able to exploit IT technology to conduct Cyber-warfare.

Military Support to Homeland Defense

With globalization and advances in technology shrinking the world, the homeland of the United States will be more vulnerable. 9/11 was a watershed moment in America as national policymakers began reexamining existing defenses and the balance between security and liberty. Many fear that terrorist and other criminal elements will continue to exploit the openness of American civil society to attack our financial, energy, or governmental infrastructure. The increasing availability of weapons of nuclear destruction may result in an attack that dwarfs the physical and psychological damages of 2001.

Despite the lack of terrorist attacks in the United States since 2001, it is still unclear if security measures implemented so far have made America safer. Many doubt the effectiveness of our changes and criticize the behemoth Department of Homeland Defense and the restructuring that occurred with the creation of this agency. These concerns were heightened by FEMA’s performance during Hurricane Katrina. Additionally, some scholars doubt the wisdom of the creation of the Office of National Intelligence and the preservation of the FBI lead, as a law enforcement agency, on domestic intelligence.¹⁰³ Still others call for reform of Congressional committee jurisdictions and oversight capabilities. How the U.S. military will best support this interagency effort is still unclear. The military has been viewed simultaneously as the last and greatest safety net for devastating events as well as a possible threat to civil liberties when operating within the U.S. borders.

The demand for higher levels of security in the homeland leads to tension with many of the political and cultural traditions of America. Increased surveillance domestically

quickly conflicts with cherished civil liberties. Similarly, increased border protection affects immigration and even openness to foreign business travelers, both of which can have negative economic and cultural impacts. The vigorous, often partisan, debates in Washington on wiretapping, waterboarding, and immigration will likely continue well into the future.

Operating Environment

- *Weapons of Mass Destruction* – Proliferation of nuclear, biological, and chemical technology and material will leave the United States increasingly vulnerable to attacks with WMD.
- *Natural Disasters* - Hurricane Katrina may have been a sign of things to come, with the nation looking more to the military as the most effective institution for dealing with devastating natural disasters.
- *Economic Shocks* - Terrorist elements may target key financial nodes in the United States, such as the New York Stock Exchange, to attack the global financial system.
104
- *Energy Crisis* – Shortages of supplies relative to increasing demand may leave the United States susceptible to energy shocks.
- *Refugee Flows* – Economic and environmental factors may increase both legal and illegal migration from mostly Latin America, but also from elsewhere.
- *Cyber-attacks* – Increased automation of our financial systems, physical infrastructure, and government operations renders the homeland more vulnerable to attacks on our information systems by both state and non-state actors.

Nature of the Threat

- *Non-State Actors* – Al Qaeda and other terrorist groups remain the biggest threat to U.S. homeland. Other Islamic terrorist groups may emerge that are not directly linked to Al Qaeda, but are inspired by similar same extremist ideology.
- *Home-grown Terrorists* – Elements of our society may become disposed to extremist Islamic ideology and independently plan attacks.
- *Criminal Elements* – Transnational criminals, including drug cartels, will continue to have a presence in the U.S.
- *State Actors* – Although state attacks on U.S. homeland will be rare, hostile states may use proxy forces to attack vulnerable sites using difficult-to-trace methods, such as cyber-attack. States could also potentially use economic measures, such as energy embargos or financial measures as holders of US debt, to damage the US economy.

Conclusion

The challenges of the next twenty years are immense and diverse. Some are immediate and others are long-term or systemic. In this context, the U.S. military must be sufficiently flexible and multi-talented to play the various roles the nation may ask of it. Operations in the contested zones will be extremely complex and multidimensional, and perhaps more frequent; the military will have to redefine the concept of war and the nature and utility of military forces. Great power politics will continue and may manifest itself in a challenge to American command of the commons. America may have to reexamine its hegemonic status and the role of U.S. forces in maintaining the international system. Threats to the U.S. homeland will continue and increase. The military will need to function effectively in the interagency process to aid in the defense of our homeland. Yet our military must do this in an era of likely declining military funding. Forward-thinking analysis of the impact of likely trends on these various military missions will prove essential to effectively and efficiently preparing for the challenges ahead.

¹Barry Posen, "Command of the Commons: The Military Foundation of U.S. Hegemony," *International Security* 28, no.1 (Summer 2003): 5-46. Posen divides the world into two areas: the "commons" and the "contested zones." The United States currently enjoys the command of the commons, which he defines as composed of air, sea, and space. The contested zones, on the other hand, are "enemy held territory." U.S. currently does not have dominance in these areas.

² National Intelligence Council, *Mapping the Global World* (Government Printing Office, 2004), 10.

³ *Ibid.*, 27.

⁴ Development, Concepts and Doctrine Centre (DCDC), *The DCDC Global Strategic Trends Programme 2007-2036* (2007), 3.

⁵ West Point Mini-Conference, March 2008.

⁶ National Intelligence Council, 10.

⁷ European Union Institute of Security Studies (EUISS), *The New Global Puzzle: What World for the EU in 2025?* (EU Institute for Security Studies, 2006), 32.

⁸ *Ibid.*, 32.

⁹ *Ibid.*, 34.

¹⁰ DCDC, 3.

¹¹ Joint Chief of Staff.

¹² National Intelligence Council, 29.

¹³ EUISS, 34.

¹⁴ DCDC, 3.

¹⁵ United States Joint Forces Command, *Joint Operating Environment (JOE): Trends and Challenges for the Future Joint Force Through 2030* (December 2007), 54.

¹⁶ The Princeton Project on National Security (PPNS), *Forging a World of Liberty Under Law: U.S. National Security In the 21st Century* (The Woodrow Wilson School of Public and International Affairs, 2006), 51.

¹⁷ *Ibid.*, 50-51.

¹⁸ EUISS, 15.

¹⁹ EUISS, 19, 20.

²⁰ *Ibid.*, 20, 21

²¹ UN Department of Economic and Social Affairs/Population Division, "Replacement Migration: Is it a Solution to Declining and Ageing Populations?," 21.

²² *Ibid.*, 53.

²³ EUISS, 20.

²⁴ *Ibid.*, 20.

-
- ²⁵ The United Nations, *World Urbanization Prospects: The 2005 Revision*.
- ²⁶ EUISS, 15.
- ²⁷ United States Joint Forces Command, (*JOE*), 10.
- ²⁸ EUISS, 22.
- ²⁹ “Young, alive but not very heaven.” *The Economist*, February 2-8, 2008. 54.
- ³⁰ United States Joint Forces Command, (*JOE*), 10.
- ³¹ Barney Cohen, “Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability.” *Technology in Society* 28 (2006), 68.
- ³² EUISS, 17 .
- ³³ UN Department of Economic and Social Affairs/Population Division. *International Migration Report 2002* (New York , 2002).
- ³⁴ DCDC, 10.
- ³⁵ National Intelligence Council, 79.
- ³⁶ *Ibid.*, 9.
- ³⁷ PPNS, 47.
- ³⁸ National Intelligence Council, 9.
- ³⁹ PPNS, 46.
- ⁴⁰ *Ibid.*, 48.
- ⁴¹ DCDC, 45.
- ⁴² DCDC, 38, National Intelligence Council, 51.
- ⁴³ National Intelligence Council, 57.
- ⁴⁴ West Point Mini-Conference, March 2008.
- ⁴⁵ DCDC, 2.
- ⁴⁶ PPNS, 53.
- ⁴⁷ United States Joint Forces Command, (*JOE*).
- ⁴⁸ International Energy Agency: *World Energy Outlook 2005*.
- ⁴⁹ United States Joint Forces Command, (*JOE*), 30.
- ⁵⁰ EUISS, 54.
- ⁵¹ PPNS, 53.
- ⁵² Isaiah Wilson, “The Arc of Instability and Energy Predation.”
- ⁵³ DCDC, 8.
- ⁵⁴ EUISS, 78.
- ⁵⁵ DCDC, 8.
- ⁵⁶ United States Joint Forces Command, (*JOE*), 25; DCDC, 78.
- ⁵⁷ Elisabeth Rosenthal, “Europe’s Appetite for Seafood Propels Illegal Trade,” *New York Times*, January 15, 2008.
- ⁵⁸ Isaiah Wilson, “Strength and Honor,” 8.
- ⁵⁹ West Point Mini-Conference, March 2008.
- ⁶⁰ National Intelligence Council, 14.
- ⁶¹ Mark Mazzetti, “Intelligence Chief Cites Qaeda Threat to U.S.,” *New York Times*, February 6, 2008.
- ⁶² National Intelligence Council, 94.
- ⁶³ *Ibid.*, 83.
- ⁶⁴ PPNS, 39.
- ⁶⁵ United States Joint Forces Command, (*JOE*), 12.
- ⁶⁶ *Ibid.*, 12.
- ⁶⁷ Anne-Marie Slaughter, *A New World Order* (Princeton : Princeton University Press, 2004).
- ⁶⁸ DCDC, 14.
- ⁶⁹ EUISS, 91.
- ⁷⁰ West Point Mini-Conference, March 2008.
- ⁷¹ PPNS, 43.
- ⁷² *Ibid.*, 43.
- ⁷³ National Intelligence Council, 100.
- ⁷⁴ *Ibid.*, 101.
- ⁷⁵ Nazila Fathi, “Iran Launches Rocket to Commemorate New Space Center,” *New York Times*, February 5, 2008, A10.

-
- ⁷⁶ West Point Mini-Conference, March 2008.
- ⁷⁷ “Help not wanted.” *The Economist*, April 12-18, 2008. 38.
- ⁷⁸ Graham Allison, *Nuclear Terrorism: The Ultimate Preventable Catastrophe* (Times Books: New York, 2005), 67.
- ⁷⁹ *Ibid.*, 92.
- ⁸⁰ *Ibid.*, 20.
- ⁸¹ *Ibid.*, 36.
- ⁸² “Arc of Insecurity” - labeled by the Joint Chief of Staff (JCS), provided in Wilson, “The Arc of Instability and Energy Predation,” 3.
- ⁸³ Posen, 24.
- ⁸⁴ United States Joint Forces Command, (*JOE*), 59.
- ⁸⁵ Robert H. Scales, “Clausewitz and World War IV.”
- ⁸⁶ United States Joint Forces Command, (*JOE*).
- ⁸⁷ DCDC, 29.
- ⁸⁸ DCDC, 7.
- ⁸⁹ *Ibid.*, 51.
- ⁹⁰ United States Joint Forces Command, (*JOE*), 39.
- ⁹¹ *Ibid.*, 59.
- ⁹² DCDC, 72.
- ⁹³ West Point Mini-Conference, March 2008.
- ⁹⁴ West Point Mini-Conference, March 2008.
- ⁹⁵ United States Joint Forces Command, (*JOE*), 42.
- ⁹⁶ Posen, 8.
- ⁹⁷ *Ibid.*, 8-9.
- ⁹⁸ *Ibid.*, 10.
- ⁹⁹ DCDC, 65.
- ¹⁰⁰ *Ibid.*, 54.
- ¹⁰¹ United States Joint Forces Command, (*JOE*), 35.
- ¹⁰² *Ibid.*, 39.
- ¹⁰³ Richard Posner, *Remaking Domestic Intelligence* (Hoover Institution Press, Stanford, 2005).
- ¹⁰⁴ *Ibid.*, 47.