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# **The Lasting Challenge: A Strategy for Counterterrorism and Asymmetric Warfare**

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## **The Lasting Challenge**

It is rapidly becoming a cliché that the world changed for Americans on September 11<sup>th</sup>. Well, the world does change every day, and certainly American perceptions of the world changed as we all watched the horrors of the destruction of the World Trade Center, the strike on the Pentagon, and thousands of innocent Americans die.

Our perceptions have continued to change as we have seen the lingering human tragedies that grow out of these attacks on our homeland, and their impact on our economy and way of life. Our perceptions have changed further as we have seen biological warfare used against other Americans in a deliberate effort to create a climate of fear, to paralyze our system of government and media, and do still further damage to our economy.

My purpose here tonight, however, is not to mourn the tragedies that have already occurred, but rather to discuss the broader forces at work, how to minimize the risk of such tragedies occurring in the future, and how best to deal with them if they occur.

It is also to make a point that all Americans are going to have to learn to accept. This war cannot be won in Afghanistan, or even by destroying all of Al Qaida. It cannot be won by dealing with every other terrorist movement we can identify today, or by dealing with all of today's terrorist states. We face an evolving and enduring threat that is nearly certain to last for decades, if not for the lifespan of everyone here.

“Victory” cannot be defined in terms of eradicating terrorism or eliminating risk. Victory must be defined in much more limited terms. It will consist of reducing the threat of terrorism to acceptable levels – levels that allow us to go on with our lives in spite of the fact that new attacks are possible and that we may well see further and more serious tragedies.

This, in turn, means restructuring our military forces and defense posture overseas. It means creating new Homeland defense capabilities, and it means improving our ability to respond if attacks succeed. This will take time and be a continuing struggle. We are not going to bring a sudden end to the threat of terrorism and asymmetric warfare. In fact, no victory we can win today or over the next few years can be complete and lasting.

## **The Illusion of American Security**

If these conclusions sound pessimistic or unsettling, it is time for a little realism about the world we live and for a better perspective about the dangers we face in operating in the world we live in.

We cannot afford to overreact to terrorism simply because it means added risk. We have already learned to live with equally serious threats, and most of us have thrust them into the background of our consciousness. In fact, the seeming security of our homeland has been an illusion for virtually the entire life of every member of this audience.

Russia has been able to strike at us with nuclear weapons since the 1950s. In 1970, at a point near the time when most of the students in this audience were born, the Soviet ICBM force alone

had some 6,000 thermonuclear weapons targeted on the US. There were nearly 1,800 more thermonuclear warheads on submarine-launched ballistic missiles, and an unknown number of additional weapons on some 250-350 strategic nuclear bombers. At least another 6,000 or more tactical nuclear weapons were deployed against NATO and US forces at sea.

In the early 1990s, when the Cold War ended, the former Soviet Union had an inventory that some Russian experts put as high as many as 62,000 nuclear weapons – although a figure of around 20,000-25,000 seems more likely. Some 10,280 thermonuclear weapons were still targeted on the U.S. In spite of the Biological Weapons Convention, the Soviet Union had also militarized some 37 agents for attacks on human beings and had created a stockpile of four lethal biological agents to use against the American people after a nuclear attack to prevent the recovery of the US.

Russia has since reduced its actual deployment of START-accountable nuclear weapons to around 5,600-5,800 strategic warheads, and the talks held between President Bush and President Putin in have called for further reductions to between 1,750 and 2,250 – far lower than the goal of 3,000-3,500 weapons set earlier for START II.

These “factoids” about the Cold War almost seem reassuring today. They do tell us that risk is not something that began or first became tangible on September 11<sup>th</sup>. They also tell us that we have dealt with far worse threats than we face today for half a century and that every student in this room has already survived the experience of living their entire life at risk. They also tell us that the right efforts can ensure that even the worst possible threats can be contained and reduced to acceptable levels.

## **Terrorism and Actuarial Risk**

Tragic as our losses to terrorism have been, we also need to remember another fact of life. At least to date, our losses are scarcely a reason for mass fear, or for changing most of our way of life. We do not normally think in actuarial terms. We do not want to be reminded on a day-to-day basis that everything we do has risks and that we all die of something. At the same time, if we are going to deal with a threat as broad and vague as terrorism intelligently, we really do have to consider the overall risks we face simply in living ordinary life and thus put terrorism in its proper perspective.

Let me begin providing that perspective with a fact that is easy to miss. In spite of all that has happened to date, the life expectancy of the average American will go up again this year. The loss of life and injuries resulting from terrorism to date are minor compared to the normal forces shaping our life expectancy. Improved medical capabilities and safety systems are still increasing our security far more quickly than terrorism has as yet reduced it.

In fact, estimates by the Center for Disease Control indicate that reductions in the use of drugs alone will save more lives in 2001 than have been lost to terrorism, and that the life expectancy of Americans born this year will rise to 77 years.

As for the actual causes of death, the leading 10 causes are still natural disease – which killed about 400 times more Americans than terrorism. We have lost less than 10 Americans to Anthrax

attacks, and seen less than 30 hospitalized for cause. Yet, in an average year, some 30,000 Americans die of the flu, virtually unnoticed, and well over 100,000 are hospitalized. Tragically, we are still more of a threat to ourselves than terrorists are. Even in this year, Americans are seven times more likely to die of suicide than terrorism.

I do not mean to communicate a false sense of security, or to trivialize the new threats we face. A minor change in timing might have tripled or quadrupled the death rate at the World Trade Center as more workers and visitors entered the building. Any mass release of the Anthrax powder used to kill a few individual could have killed thousands more, and our society has countless points of vulnerability.

We do have much more to fear from terrorism and asymmetric warfare than fear itself, but constant risk of some kind is the very price of existence. We can never eliminate any given major risk entirely, however, and every risk must be kept in perspective. If we can keep such risks to a low enough levels of probability, we can and do live normal lives.

### **The New Security of America's Young Men and Women: Choosing Between Being an Actor or a Victim**

There is also a special irony in talking about the cumulative balance of risk to an audience that is composed of so many young men and women. One major risk of my youth – the draft – has been virtually eliminated. The fact is that it now takes a year to 18 months to really train an effective soldier for modern warfare, and that the nation needs dedicated and well trained volunteer professionals and not draftees. We rely on a professional military because we need one: Men and women with the training, special skills, and practical experience demanded by today's weapons, technology, and tactics.

It has become popular to call for new forms of national service, but these will be pointless without dedicated volunteers. Similar levels of expertise and training are needed in most Homeland defense job. We do not need unskilled college students or unskilled labor of other kinds to deal with the problems of Homeland defense.

Skilled, trained, and motivated volunteers can be of immense help. However, drafting young men and women into such jobs would simply displace people in the lower levels of the work force and those who cannot find alternative employment while creating an administrative nightmare for the government. We again need dedicated and well-trained professionals with specialized law enforcement, intelligence, medical, and emergency response training and as much training and practical experience as possible.

Today's students can plan their lives with the near certainty that if they do not care enough to serve their country and society, no one will make them serve except in emergencies so grave that serving will probably offer more security than standing helpless on the sidelines. It is you, not your country, who will choose whether you make a meaningful contribution and are an actor, rather than a bystander or a victim.

## **The New Risks of Terrorism and Asymmetric Warfare**

Make no mistake, that choice will be a real one. Terrorism may be a threat that we can put in perspective and reduce to acceptable levels, but this will only be true if we develop a mix of strategies and problems that can reduce that risk – and inevitable future casualties – to acceptable levels.

It is also vital that we look beyond the narrow definition of the word “terrorism” as we begin to think out how to deal with deterrence and retaliation once the current struggle against Bin Laden, Al Qaida, and the Taliban is over. The entire world has now seen we are vulnerable, and that it is possible to carry out both major direct attacks that cause thousands of deaths and slow insidious attacks that attack our institutions, economy, and confidence in our government and society.

Shortly after the Gulf War ended, an Indian general remarked that the chief lesson of the war was to never attack the US without first having nuclear weapons. Others focused on asymmetric warfare. Iran tailored a new asymmetric threat to the oil traffic moving the Gulf. Nations like China began to develop a body of literature on how to covertly attack the US by military means, through its economy and information systems, and through its allies. Nations like Iraq and North Korea focused on proliferation.

There is no meaningful way to separate the threat from terrorism and the threats from states. We must also prepare to deal with major state-driven attacks using covert and asymmetric forms. We must also prepare to deal with the fact states may use terrorist and extremist movements as proxies and given them weapons of mass destruction.

## **Playing Three Dimensional Chess: No Simple, Quick, and Wrong Solutions**

Given this background, it is important to understand that the traditional American impatience with complex solutions is precisely the wrong approach to dealing with these issues. The old joke that Americans have the same initial solution to every problem – simple, quick, and wrong – could become a tragedy if we do not face the fact that we must make progress in many different areas, both foreign and domestic. It will become an equal tragedy if we do not begin looking far into the future at both the nature of the problems we face and the need for new solutions.

We cannot solve the problem of terrorism and asymmetric warfare by winning a military struggle in Afghanistan or by destroying Al Qaida, although we must do so. We cannot reduce the remaining risks by dealing with the most urgent additional causes and sources of terrorism and asymmetric warfare, although we must do this as well.

If we are to create a lasting capability to reduce the risk of terrorism and asymmetric warfare to acceptable levels we must recognize that there are major forces at work that will change these threats over the coming decades, and that we need sustained major programs in three areas:

- First, transforming our military forces to deal with terrorism and asymmetric warfare.

- Second, creating new law enforcement and government systems to provide much stronger defenses inside the United States.
- And third, developing new emergency response capabilities to deal with the effects of successful terrorist and asymmetric attacks.

You cannot win a game of three-dimensional chess by trying to play checkers, and the struggle against terrorism and asymmetric warfare is at least as complicated as three-dimensional chess.

## **First Things First: Defeating Bin Laden, Al Qaida, and the Taliban**

To succeed, we do need to put first things first. No broader strategy can work unless we succeed in winning a decisive victory over Bin Laden, Al Qaida, and the Taliban. This is not simply a matter of winning the war in Afghanistan. Any victory will leave thousands of Islamic extremists from Afghanistan, the Arab world, Chechnya, Pakistan, Central Asia, and other areas that hate the United States. No matter what happens to Bin Laden, and Sheikh Omar, some will carry the struggle on, and there will be serious ongoing problems with Afghan factions and the nations around Afghanistan.

### **Shaping a More Stable Post-War Afghanistan is Critical.**

Only a government of all of the Afghans for the benefit of all of the Afghans can both bring the kind of internal stability that will ensure that Afghanistan does not become the home of future extremist movements, and ensure that the rivalry between Iran, Pakistan, Tajikistan, and Uzbekistan is kept to a minimum.

It may be possible to create such a government simply by giving each major ethnic faction a high degree of autonomy, but any solution will involve a difficult political effort to balance both the factions inside the Afghan opposition and the interests of the nations surrounding Afghanistan.

US and allied diplomacy and aid can do a great deal to help in this regard, and to reassure Russia and China that the West fully understands that the present war must not be the preface to a “new Great Game.” Broad Western humanitarian aid can reassure the Afghans, the region, the Middle East, and other Islamic states that the West does not see Islam as an enemy.

The three key ingredients are acceptance of the fact that the Afghans will have to move in their own way and at their own pace, that a US effort must be patient and persistent, and that nation-building takes money. Whatever happens in the next few weeks or months; we are talking about a sustained effort over years, and probably half a decade.

## **Afghanistan is a Critical First Step in Engaging in the Battle for Hearts and Minds: Creating a Coordinated Outreach and Media Program**

The US needs to work with its allies to reach out to the Afghans, others in the region, and all of those in the Islamic world. Any military victory must be followed up with a battle for hearts and minds.

The US must strengthen its government information and outreach programs, and work with its allies to use BBC, VOA, and other government broadcast efforts in ways that ensure full coverage of all of the nations, ethnic groups, and languages involved is critical. So are efforts at common diplomacy to reduce the tension between the West and Islamic and Arab world, and avoid tensions with nations in the region.

The battle against terrorism will often be a battle of perceptions, and such an effort should be a prelude to a broader and more sustained effort in areas like satellite broadcasting, more effective use of the Internet, and better efforts to use scholarships, visiting fellows, embassy information sections, etc. to build understanding between the West, Central Asia, the Arab World, and Islamic World. There is a need for a lasting effort to avert any “clash of civilizations.”

## **Rooting out Al Qaida and Possible Allied Extremist and Terrorist Groups**

The US and its allies already have strengthened intelligence and law enforcement cooperation. They are cooperating in shutting off the sources of terrorist financing, shutting down cells with terrorist connections and reviewing the character of political movements. This has not only affected Al Qaida operations in Europe but operations all over the world.

Both intelligence and law enforcement groups are also attempting to improve international warning. This combined effort is key for ensuring that the military outcome in Afghanistan does not produce a new wave of terrorism, and one that will be of continuing importance indefinitely into the future. What is not clear is that the US will receive equal cooperation in extraditing terrorists. The issues of the death penalty and military tribunals are ones the US may have to review in terms of their impact on the laws and policies of allied nations.

## **Taking the First Set of Steps to Improve Transportation, Trade, and Critical Infrastructure Security**

At the same time, we must take what short-term steps we can to improve our physical security. Virtually every Western country is rushing to try to improve the security of its airports and airlines. Many of these efforts, however, still differ sharply from country to country, and less effort is going into coordinating sea and air cargo traffic and inspection. The same is true of physical security efforts to protect critical infrastructure, shipping, and communications..

It will not be possible to create common approaches and institutions, or to implement them quickly. More can be done in the near future, however, to exchange plans and methods and seek a more common level of protection that affects all aspects of inter-US and global activity.

## **First Things Second: The Broader Response to the Current Crisis”**

It would be far, far better if there was only one crisis to be dealt with at a time. The reality is, however, that the struggle against Bin Laden, Al Qaida, and the Taliban is inextricably linked to other ongoing crises. Virtually all of these crises involve long-standing problems for the West with no good answers. While it may be impossible to take a unified approach, however, there is certainly a clear need to take as common and coordinated approach as possible:

### **The Second Intifada and the Arab-Israeli Peace Process**

The events of September 11<sup>th</sup> have demonstrated all too clearly just how important progress is in the Arab-Israeli peace process, and how vital it is for both the US and Europe to make visible action to prove they will do everything possible to bring an end to Second Intifada. This also means increased political pressure on Israel, the Palestinians, and moderate Arab states, while proving that the West can show balance in dealing with both sides. Without progress in this area, Al Qaida may simply have written the road map for new attacks by different groups.

The speech that Secretary Powell gave in November is a start. So is sending General Zinni to the region to try to move both sides towards a ceasefire. It is already clear, however, that American words will have little impact unless they are backed by more substantive actions.

The US must not compromise Israel's security or compromise with terrorism on the part of the Palestinians. It may well be, however, that the US will have to establish “redlines” for Israel as well as for the Palestinians, particularly in terms of Israel occupation of Palestinian areas and further development of the settlements.

At some point, the US may also have to define what the “international presence” called for in the Mitchell report really means, and define what level of roll-back it advocates in Israel's current settlements. This cannot mean a retreat from the greater Jerusalem area, but the US may have to exert pressure to push towards an Israeli withdrawal from Gaza, Hebron, and similar settlement areas, and for a return to the compromises that Israel offered at Camp David and Tabah.

### **The Problem of Iraq**

The Bush Administration has delayed, not avoided, a major military confrontation with Iraq. As best, this means there must be a highly visible rollback in Iraqi missile efforts and development of weapons of mass destruction. It may mean major US strikes on the Iraqi leadership until it is forced from power if there is any firm evidence linking Iraq to the attacks on the US or if Iraq carries out any significant military adventure or support of terrorist activity on any of its borders or against its Kurds.

Some of our allies tend to underplay this threat and the dangers Iraq poses. The US may or may not be overreacting. It is vital, however, that a quiet dialogue takes place with all of our critical allies on this issue as soon as possible.

There is -- at a minimum -- be a need for a common statement that the US will not tolerate any aggressive action by Iraq, and that any such Iraqi action will lead to war. This may well require that the US define specific redlines for Iraqi behavior, and make it clear that violation will lead to war and a concerted effort to overthrow Saddam Hussein's regime by force.

At the same time, there may be a need for the US to cooperate with its allies in looking beyond "smart sanctions" to "wise sanctions," and finding ways to offer the Iraqi people more help on both a humanitarian and development basis.

## **The Problem of Iran**

If Europe has tended to understate the problem of Iraq, the US has overstated the problem of Iran. Many of the senior leaders in the Bush Administration seem to recognize this, even if the US Congress does not.

Given the acute divisions in Iran, it may be impossible to create any kind of formal US-Iranian government-to-government relations. It may, however, be possible for the Bush Administration to allow Europe to take a more aggressive approach to investing in Iran with the certainty that ILSA will be avoided with waivers. Similarly, continued European support of informal US and Iranian dialogue will be of value.

## **The Problem of Pakistan**

We must follow through in Pakistan. Nothing could be worse than winning in Afghanistan and destabilizing a nuclear Pakistan in the process. We need to new aid, trade, and investment activities might do much to reinforce Musharaff and provide added stability.

The delivery of Pakistan's F-16s is one such step, but we need to take a broader approach to helping Pakistan in its economic development efforts, and to concentrate on and to the Pakistani people rather than simply military assistance. An effort to work with other industrial nations to aid Pakistan would be one possible approach. Another would be to seek some kind of new IMF or World Bank development effort.

## **Dealing with Key Arab and Islamic "Moderates"**

The key to improving US relations with the Arab and moderate Islamic world is to make real progress in the Arab-Israeli peace process. However, more is required. The US and other Western states need to collectively and individually reach out to moderate Arab states and the Islamic world. Along with other Western governments, we need to rethink their diplomacy, public information, and aid policies to make it clear that there is no clash between civilizations, and that a major effort is being made to support friendly Arab regimes.

Western governments and intellectuals also need to develop a common understanding that the litmus test of regimes is not whether they are political clones of the West -- or provide a political echo of Western views -- but whether they are making a serious effort at secular development and meeting the needs of their people.

## **The Longer Term Challenges: Why Putting First Things First is Not Enough**

While we must deal with first things first, we must also come to grips with much longer-term problems and challenges. Our success in keeping the level of human, political, and economic cost of terrorism to acceptable levels requires us to look just as far into the future as well can, to develop a realistic picture of how the world is changing; and then carry out a constantly evolving effort over decades.

### **The Impact of “Globalism”**

We, as Americans, need to understand that we cannot hope win a battle for hearts and minds to the point where some nations, political movements, and terrorists do not remain our enemy. Every alliance and friendship we have overseas involves choices, and almost invariably aligns us with one state or movement at the expense of others. We cannot be true to our own values without coming into conflict with the values of others.

It is a long-standing reality that the world is a violent place, and this level of violence is something that has *not* changed since the end of the Cold War. There have been at least 25 major civil or international conflicts every day of every year since the end of World War II, a period of more than half a century. While the levels of force were often little more than token in character, the US had already had to deploy military forces to protect its interests and citizens more than 300 times to deal with these conflicts, and has now fought two major wars and several lesser conflicts.

We also need to understand that the same things that make us a symbol of hope to many nations and peoples throughout the world will sometimes also make us an enemy to others. The development of the global economy has had many beneficial effects. It has raised the living standard of much of the world, and it has been a key force that has limited the fall in the living standards of much of the rest.

At the same time, what we have come to call “globalism” has combined with the collapse of the Soviet Union to make the US the “world’s only superpower.” The US has become the very symbol of Western and secular military and economic power, and the natural target of resentment by failed states and those societies and cultures that are under stress.

Our ties to Israel are one source of such tensions, but scarcely the only one even in the Arab world. Throughout much of the world, the US is widely viewed as the embodiment of foreign interference, neo-“colonialism,” and of Western power projection. It is the symbol of the secular and economic forces that are imposing outside change on many previously isolated or static societies. Even if we could deal with all of our current foreign threats – and ignore our own domestic problems, extremists, and terrorists – we would still live in a troubled world.

There are many cultural, political, and economic tensions that divide the world, but demographics alone almost ensure that new terrorist and asymmetric threats will continue to evolve deep into the 21<sup>st</sup> Century. In 1940 -- roughly the year that I was born -- the world had

about 2.3 billion people. In 1950, at the time of the Korean War, that number was still to 2.6 billion. Today, however, the figure has risen to 6.2 billion – nearly three times the population when I was born. By 2050, even conservative estimates put that figure at 9.1 billion.

These are hard numbers to put into perspective, but another way of putting these figures is that 8,700 more humans live on this planet every hour, 147 every minute, and almost 2.5 every second. This is driven largely by the birthrate in the poorest countries in the world, but it is also driven by an aging process that is increasing the number of dependents. The UN estimates that the average global lifespan is 65 years to day. It will rise to around 69-70 by 2015, and to around 71-72 by 2025.

Much of this population growth has and will occur in productive and stable nations. In broad terms, the world is becoming much better and wealthier place and far more nations are developing than fail. Unfortunately, however, it *is* the poorest states that generally have the highest birth rates, and the World Bank calculates that at least one-third of the world's countries still have 30-40% of the their entire population living below the poverty line.

Some 40% of the world's population lives in economies where the average per capita income is less than \$800. We are talking about a total of 2.8 billion people who have incomes of less than \$2 dollars a day and 1.3 billion earning less than \$1 dollar a day. Furthermore, the global trends have not been positive. The poor are getting poorer. The poorest 20% of the world had about 2.3% of the world's income in 1960. It had 1.4% in 1991 and about 1.2% in 1997.

While economic conditions in much of the world will improve over the coming decades, the UN and World Bank estimate that at least 600 million to one billion people will still be born into dire poverty between 2000 and 2015. At least three billion people will still live in poverty by that date.

A large portion of the world's growing population is also losing its traditional social structures, extended families, and "safety net." For example, some 38% of the world lived in hyperurbanized cities with more than one million people in 1975. The figure is close to 47% today. The UN estimates that it will be some 58% by 2025.

In the process of this hyperurbanization, the number of urban poor doubled from 390 million in 1980 to 760 million in 2000, and nearly 22% of all the people in the world's poorest cities now live in cities of over one million. This figure may well reach 30% by 2015.

In far too many cases, schools and infrastructure have already failed to keep up. This failure affects the most basic conditions of life. For example, some 1.4 billion people lack safe drinking water today. We estimate that this figure will be 3 billion by 2025, and many of these people will face severe shortages of water of any kind,

There are also gross imbalances in regional economic development. For example, the World Bank estimates that the entire Middle East and all of Africa experienced no real growth in per capita income in the two decades between 1980 and the year 2000.

Under these conditions, it is almost inevitable that the cultural, religious, and ethnic differences that divide most regions and countries in the world will interact with massive social changes and

sharp national and regional differences in wealth to produce continuing threats from hostile states and terrorist groups.

We in the US are part of a limited number of high-income countries that have an average per capita income of some \$26,000 a year. We, however, are the lucky exception and not the rule. South Asia has an average income of \$440, Africa \$490, East Asia \$1,010, and the Middle East \$2,160. To put it differently, some 225 of world's richest men and women have the same total wealth as 2.7 billion of the most poor, and well over half of the richest people in the world live in the US.

It is a common axiom of counterterrorism studies that an effective effort must address the structural or root causes of terrorism. No matter what we do, however, many nations, cultures, and societies will be under continuous pressure deep into the 21<sup>st</sup> Century.

At the same time, vast improvements in global communications already ensure that virtually all of these people are all too well aware of the growing gap between them and the industrialized world. They are aware of our wealth, their poverty, and how much we have -- or have not -- done to help them.

This does not mean that most of the world will dislike or hate *us*. Most people in the world will simply have no time for hatred or dislike. They will be far too concerned about their own personal living conditions. Even most of those who do envy our success, would far rather emulate our success than attack us.

Nevertheless, we must look beyond the near-term problems we are having with Islamic extremism, today's terrorist groups, and today's rogue regimes. We face a future where some groups and nations will inevitably continue to see us as the cause of their problems and see us as an enemy or as being to blame for their plight. Terrorism and asymmetric threats are almost certain to be a continuing fact of life, and every victory against one nation or group will eventually be followed by the emergence of another.

### **A Broad Process of Proliferation is Increasing the Threat from Weapons of Mass Destruction.**

Other trends also are shaping the world in ways that affect the future of terrorism and asymmetric warfare. The attacks on the World Trade Center and the Pentagon have shown us that we cannot afford to look so far into the future that we fail to concentrate on present threats and the risks posed by "conventional" methods of terrorism.

At the same time, our strategy must consider several major ongoing changes in technology that will continue to reshape the world for as far into the future as anyone can see. One of these threats is proliferation, and particularly the threat posed by biological weapons.

Advances in biotechnology, advanced food processing, and pharmaceuticals are steadily increasing the ease with which both terrorists and states can manufacture lethal biological agents and do so all over the world.

The full impact of the proliferation of genetic engineering may be a decade or half-decade away, but the equipment needed to make dry, storable biological weapons with the lethality of small nuclear weapons has already proliferated through much of the world. There are long-standing infectious threats like smallpox that can be at least as lethal as nuclear attacks.

A World Health Organization (WHO) estimate based on the weapons technology available in the late 1960s estimated that the release of 50 kilograms of Anthrax -- over a developed urban area with a population of five million -- could infect as many as 250,000 people, of whom 100,000 could be expected to die.<sup>i</sup>

A 1993 report by the Office of Technology Assessment of the US Congress estimated that the release of 100 kilograms of aerosolized Anthrax over a densely populated city the size of the greater Washington area could theoretically kill between 130,000 and three million and have economic costs of \$26.2 billion per 100,000 persons exposed. A chart in the same study estimated that 100 kilograms of a 1-5 micron aerosol of Anthrax could theoretically kill up to three million people in a densely populated city the size of the greater the Washington area, versus 750,000-1.9 million for a one-megaton bomb.<sup>ii</sup>

Bad as these figures sound -- and it must be stressed that the technology involved in producing such Anthrax weapons is no more exotic that it was in the 1960s -- genetic engineering will make it far easier to develop bioagents in the future that are difficult to detect, which defeat known treatments, and which are far more lethal.

We also have far too little understanding of how to respond to many of these biological threats. The Anthrax attacks on the US, and the recent outbreak of Hoof and Mouth Disease in the US, have already shown us that we do not fully understand the effects and risks of relatively well-known biological agents. We have little practical experience with militarized agents and none with deliberate large-scale attacks with infectious diseases and efficient militarized strains and agents. In many cases, our current methods of detection, disease control, and treatment may be ineffective, and this is particularly true if the attack uses a mix of different agents and is spaced and sequentially timed to deceive or disrupt effective response.

Nature will also be an enemy. Progressively more lethal strains of disease are emerging throughout the developing world. The World Health Organization and the CIA both warned of a continuing threat to the West from natural causes long before Anthrax was used in a terrorist attack in the US.

A National Intelligence Council study, issued in January 2000, warned that twenty well-known diseases--including tuberculosis (TB), malaria, and cholera--have reemerged or spread geographically since 1973, often in more virulent and drug-resistant forms. At least 30 previously unknown disease agents have been identified since 1973, including HIV, Ebola, hepatitis C, and Nipah virus, for which no cures or fully effective treatments are available.

A major biological challenge existed long before the Anthrax attacks, and would have existed even if the horrors of biological warfare had never been brought to our homeland. A World Health Organization report on infectious diseases issued in 2000 warned that the global abuse of antibiotics was systematically ending our ability to deal with diseases like Streptococcus

pneumoniae and Haemophilus influenzae dysentery, and Tuberculosis, while malaria, hepatitis, Staphylococcus aureus (MRSA) and vancomycin-resistant Enterococcus (VRE), and yes, Gonorrhoea, were becoming immune to conventional treatment for other reasons.

It can be argued that most natural outbreaks are relatively slow killers that can be dealt with over time, or can be contained in most cases. However, this is not always the case. Diseases like Ebola present a different kind of threat. A National Intelligence Council study warned in 2000 that some 10-12 outbreaks of new strains of disease emerge each year. While I am not quite sure what reassurance any one can draw from the fact, we were under serious biological threat long before September 11<sup>th</sup>, and this threat will continue throughout the lifetime of the youngest person here even if there is never another biological terrorist.

As Britain and Taiwan have learned at immense cost, biotechnology can attack agriculture as well. Even moderate outbreaks of natural disease can easily cost billions of dollars and have a powerful political and social impact.

Biological weapons are also only part of the problem. We can scarcely ignore the risk of terrorist or asymmetric attacks using chemical weapons. While so-called “fourth generation” chemical weapons remain so secret that governments will not talk about them even in broad terms, some developing nations already are developing them, and doing so in ways that are not covered by the Chemical Weapons Convention. At some point in the next decade, these weapons too will be common knowledge.

Many countries have lied about their possession of chemical weapons in the past, and both countries and terrorist movements may be able to acquire the materials and technology to make “fourth generation” chemical weapons over the next decade. Even if they do not, there are many commercial hazardous chemicals materials that can be used as terror weapons, as well as radioactive materials that can be used in radiological weapons.

There are terrorist and asymmetric nuclear weapons threats as well. No major advances are taking place in the ease with which fissile material can be manufactured, but there is still the issue of the Russian stockpile, and the emergence of new sources of fissile material like Pakistan. Moreover, every other aspect of nuclear weapons manufacture is becoming more commercially available from triggering devices to the ability to make and test high explosive lenses.

These emerging threats interact with changes in international transport and trade. The commercialization of space technology and the technology for cruise missiles and drones is one such threat. So, however, is the steady increase in air traffic, international road traffic, and commercial shipping. Any shipping container can be equipped with GPS to explode just before it goes through customs. Most shipping containers are never really inspected, and no commercial screening device can as yet reliably detect a biological agent – and even amounts less than 100 kilograms can produce massive amounts of damage.

## **Advances in Information Systems, and the Steady Integration of World Trading and Financial Systems, Are Steadily Increasing Vulnerability to Cyberwarfare and Terrorism**

Constant attacks by “crackers” and cybercriminals have already become routine, but states and terrorist groups have the potential to use such technology to do far more damage. No one has to attack a nation or physical target directly and visibly as was done in attacking the World Trade Center and the Pentagon, Indirect attacks on information systems can be just as damaging to an economy, government, and the social order.

This form of asymmetric warfare is a very much a matter of personal skill, almost an art form. A small terrorist group may be as effective as a state, although sustained mass attacks remain an attractive form of state asymmetric warfare. It also may not matter much to the West whether key information systems and trading and financial systems are attacked in New York, Frankfurt, or London.

At the same time, direct physical attacks on key information, trading, and financial systems are also possible. Here, a combination of technology, engineering, and cost-considerations has acted to create steadily greater dependence on critical utilities, facilities that house critical communications gear and nodes in networks, and places where large numbers of skilled human beings interface with such systems. Wall Street and nuclear power plants are just two examples of such critical infrastructure.

Furthermore, the problem of insuring against all of the risks of terrorism and asymmetric warfare – and the future role of states in ensuring the viability of what has become a global insurance business – is becoming a challenge in itself. Insurance must deal with both information systems and virtually every form of major terrorist or state-driven asymmetric physical attack, and it is unclear that any one nation in the West can afford to secure its national insurance industry against such risks.

## **Advances in the Technology and Weapons for Other Forms of Asymmetric Warfare, and the Steady Dissemination of Advanced Conventional Technology and Weapons, Add to the Threat.**

As the recent US Quadrennial Defense Review has warned, terrorists and states are acquiring access to a wide range of technologies that both erode the West’s conventional edge and support asymmetric warfare and terrorism.

These technologies include secure communications, satellite phone systems, satellite imagery, highly effective anti-ship missiles and advanced mines, GPS location and triggering devices, advanced manportable surface-to-air missile, robotic crop dusters and UAVs, and a host of other systems. Steady advances in the global dissemination of technology are constantly changing the technological map of terrorism and asymmetric warfare.

## **Advances in Global Transportation Systems Create Another Mix of Vulnerabilities.**

US and global dependence on key transportation systems like jet aircraft, container vessels, and oil and gas tankers is projected to grow steadily and do so indefinitely into the future. As we saw all too clearly on September 11th, however, virtually every major transportation system we depend on for international commerce can be transformed into a weapon. So can any interference in the growth and flow of such systems.

A passenger or cargo aircraft can become a transatlantic guided missile without warning. A LNG or LPG tanker can produce a major explosion in any crowded port, and LNG is heavier than air and could produce serious damage. A cargo vessel can become a delivery system for a weapon in a container. Biological weapons to attack people or agriculture can be concealed in virtually any form of container.

At the same time, any attack on key global trading system like the flow of oil exports – or even a long-term interruption in the growth of air traffic – can have a major impact on the West as a whole. An asymmetric attack that destroyed a single major Saudi oil port like Ras Tanura would attack the entire West as effectively as a similar asymmetric attack on the US or Europe.

## **Dealing with the Mid and Long-Term: The Continuing Challenge of Homeland Defense**

It would be nice if the United States and its allies could deal with the present crisis in narrow terms. In practice, however, such a strategy is virtually certain to fail. In many cases, it simply is not cost-effective to solve only part of the problem when marginal increases in effort could deal with a much wider range of risks. In many other cases, the lead-times for effective action are too long to wait.

More generally, US and global economic vulnerability is no longer a matter of theory and the perceived constraints on the use of truly lethal methods of attack like biological weapons have been severely undermined. A workable Western strategy must address the entire problem or be the prelude to further and possibly far more dangerous attacks.

We cannot deal with such changes in the world, and the mid and long-term challenges they present, by pouring money into instant solutions. We can only meet them if we both restructure our government to provide the proper focus on Homeland defense, and if we develop and implement systematic plans, programs, and budgets to create the necessary capabilities.

We must also remember that no one set of improvements will be enough. We cannot create a lasting capability to reduce the risk of terrorism and asymmetric warfare to acceptable levels unless we recognize that there are major forces at work that will change these threats over the coming decades. To repeat a point made earlier, this means we sustained major programs in three areas:

- First, transform our military forces to deal with terrorism and asymmetric warfare.

- Second, create new law enforcement and government systems to provide much stronger defenses inside the United States.
- And third, develop new emergency response capabilities to deal with the effects of successful terrorist and asymmetric attacks.

It is already clear that we are talking costs of hundreds of billions of dollars. It is almost axiomatic that virtually every major improvement in each of these three areas will take years to implement, and that few – if any -- will not mature efforts before the end of the present Bush administration. It is equally axiomatic that many desirable new technologies will take much longer to develop, acquire, and translate into effective systems.

As we are now learning, many of these improvements also require a “new federalism:” new forms of cooperation between federal, state, regional, and local officials. The federal government can lead in some areas and not others. Some key tasks – like the most critical hours of initial response to an attack – will always be a primarily local responsibility.

Moreover, a US-centric or neo-isolationist approach to these tasks will be self-defeating if not suicidal. The attacks of September 11<sup>th</sup> are a model of why we cannot defend alone or ignore our friends and allies. The cooperation we have had from NATO, Europe, and friends and allies in the Middle East and Asia has been absolutely critical to our success in Afghanistan and defeating Al Qaida in other states. The role of Russia and China in helping us is also a clear message that we need to broaden traditional alliances.

At the same time, it is clear that attacks like those of September 11<sup>th</sup> affect the entire world’s economy– not simply one country. The deepening world recession that has followed the attacks on the World Trade Center and Pentagon presents the irony that ultimately the developing world and most countries in the Middle East may suffer more from the economic consequences than the US.

Yet, it is also a warning that any attacks on a critical aspect of the global economy outside the US would hurt us deeply even though they occurred on foreign soil. Strong national Homeland defense programs will not be enough. We need to work with our allies to create common programs and capabilities.

It is only possible to touch on the full list of efforts required in any speech or overview, but even the effort to list the most necessary efforts illustrates the depth of the challenges involved. It also again shows that decades – not months or years -- of effort will be involved.

### **Transforming US Forces, Allied Forces and Developing the Capabilities for Asymmetric Warfare and Homeland Defense**

The US Quadrennial Defense Review already calls for transforming US forces to fight asymmetric warfare and perform homeland defense tasks. However, we are just beginning to define what this really means. We will not have clear proposals in time for next year’s defense budget submission, and even the FY2003 defense budget request will only be a first step in a transformation process that will take years, if not decades.

The need for such force transformation will be equally great for all of NATO and for other critical allies like Japan. It must be developed on a regional basis in areas like the Gulf. Interoperability is difficult enough in conventional combat. The fight against terrorism and asymmetric warfare is far more political and often far more complex. It requires constant innovation, and it presents the constant risk of both covert attacks and the use of CBRN weapons.

One solution to developing such force transformation in NATO would be a new Force Planning exercise that looked beyond both the US focus on power projection outside of Europe, and the narrow limits of the European Self-Defense Initiative, and explored common approaches to these tasks. Other efforts will have to be bilateral, but will be equally important.

Specific issues that must be addressed in such a national and international force transformation process include:

- **Defining a New Approach to Extended Deterrence**

Determining how the US and the West can develop a mix of conventional and nuclear deterrents to mass terrorism and asymmetric warfare. One key question will be the extent to which improved targeting, precision and smart conventional weapons, and more lethal conventional weapons can deter and respond to CBRN weapons. At one level of threat, we may be talking surgical attacks against CBRN facilities in urban areas. At another, we may be talking about the conventional equivalent of the SIOP.

We cannot size our Nuclear Posture Review and/or START II solely around our traditional view of the Russian and Chinese threat. We must reexamine the role of nuclear weapons in deterring asymmetric attacks, as well as and the role that NATO and other Western nuclear powers should play in using nuclear weapons to deter CBRN asymmetric attacks on Western and allied states.

Here, we need to also consider whether it may be possible to include Russia and China in such a structure of deterrence, or find some kind of modus vivendi with them.

- **Resolving the Problem of Missile Defense**

Missile defense is only one aspect of military transformation and homeland defense, but it remains on the most controversial ones. The US must reexamine what mix of ABM, TABM, and air/cruise missile defenses will be needed, and what level of international cooperation is possible, or whether US deployment must remain a largely national issue.

- **Determining How to Restructure Conventional Forces for Asymmetric Warfare**

The US has already seen in Afghanistan that Special Forces and ranger units, specialized power projection units, psychological warfare units, and similar forces can play a critical role in crises like Afghanistan. Both Kosovo and Afghanistan have also shown the critical need to rethink the issue of collateral damage and the political dimension of war. They have also shown the growing value of high mobility light forces, the ability to rapidly project power at longer ranges and without access to traditional bases, and the need for

more “low density assets” like UAVs, special forces aircraft, and electronic warfare platforms.

The practical problem for the US and its allies is to determine not only what new forms of force are needed, but also how to ensure how they can be made interoperable, how they can be projected, and how the US and its allies can ensure that it will actually be possible to use such forces with some degree of political consensus.

- **Rethinking the Geographic Focus of NATO**

Much of NATO’s posture and geographic focus is still Cold War oriented, largely by default. It concentrates on the security of Central Europe and Northern Flank. One key question is whether the expansion of NATO and improved relations with Russia allow NATO to focus more on protecting global sea-lanes and lines of communication, the tensions in the Balkans and on its Southern Flank, and power projection outside the NATO area. As part of this rethinking, the need to develop coalition partners in regions outside NATO, and particularly in the Middle East and Africa, will be a major issue.

- **Reshaping the Expansion of NATO and Partnership for Peace**

Both the US and Europe need to reexamine the role of Russia and non-NATO states in security cooperation in the light of the problem of terrorism and asymmetric warfare. It may now be possible to cooperate in new ways, and the incentive for such cooperation seems much stronger.

## **Institutionalizing An Integrated New Approach to Homeland Defense, Law Enforcement, and Counterterrorism**

We cannot hope to defend ourselves at our borders, but we must improve the integration between such efforts as intelligence, immigration, customs, the border patrol, and the Coast Guard. At the same time, we must improve defense within the US. As we have already begun to see, this means systematic changes are required in the nature of federal, state, and local law enforcement, as well as in related activities such as Customs, immigration, and the Coastguard. They also require changes in virtually every aspect of federal regulatory activity, especially those relating to transportation, communications, utilities, major information systems, and other aspects of our critical infrastructure.

We are already beginning to make major changes to the Homeland “defense” related activities of over 40 federal agencies and departments. We must not only follow up by developing suitable plans, programs, and budgets in each such agency, but prioritize and coordinate these efforts and make intelligent trade-offs between them and the remaining margins of risk.

We need to further improve the cooperation between law enforcement and intelligence and we need to strengthen the US intelligence community in terms of human intelligence, technical assets, analysis, and operations to deal with terrorism and asymmetric warfare. At each step of the way, we also need to carefully examine the resulting impact on civil liberties and the rule of

law, and we need to determine whether new approaches, added investment, and new technologies can provide adequate protection without restricting human rights.

Effective homeland defense means creating a new process of fusion between domestic defense and international security. This is a process that not only means strengthening US intelligence capabilities located in the US, but far more emphasis on stronger embassy and country teams and doing so after years of undermanning and underfunding. It requires an equal emphasis on creating operations teams in the CIA that can work independently or in unison with US Special Forces, rangers, and other military forces.

At the same time, we need to understand that parallel, lasting, and well-institutionalized efforts will again be needed to work with our allies in intelligence, counter-terrorism, law enforcement and related activities like customs, coast guard and port control. Some clear decisions will be needed about the creation of new agreements to detail cooperation and set international standards for trade, infrastructure, and transport security. The role of Interpol will also need reexamination.

We are already making real progress in many of these areas, but it would be both totally unrealistic and totally unfair to say that we can even make a fully coordinated start in less than two to three years, or implement mature Homeland defense programs in less than half a decade. Even then, we will have to constantly evolve our capabilities to adapt to changes in the threat.

### **Developing a New Approach to Dealing With CBRN and Biological Attacks**

We will have to face the fact in all of these efforts that “body counts” really do matter. We must give far more priority against protecting large numbers of Americans against massive risks than protecting every American against every risk, and once again we must think in actuarial terms.

The threat of attacks using conventional means has scarcely gone away. And September 11<sup>th</sup> has shown that innovative “conventional” attacks can produce very serious casualties. At the same time, we do need to concentrate on the growing risk of far more serious attacks using chemical, biological, radiological, and nuclear weapons. Smallpox is only one such threat, and we cannot assume that there are any political, moral, technological or military barriers that will prevent such attacks in the future.

The US and its allies also need to rethink internal security planning, public health, response, and defense efforts to deal with the broad range of CBRN threats. This requires us to refocus homeland defense on attacks using each type of CBRN weapons, and covert means of delivery.

Within the United States, we need to examine the full range of options for defense and response, make hard trade offs between them, and develop an integrated mix of federal programs to deal with them. The most urgent effort, however, should be in dealing with biological attacks, simply because they combine high potential lethality with greater ease of acquisition and use.

This means developing new detection, characterization, and warning systems where these can be proved to be cost-effective. It also means rethinking the national stockpile of vaccines and medical goods, and our investment in public health services and surplus medical capacity.

At the same time, effective Homeland defense means paying close attention to the risk of attacks on crops and livestock. The British experience with a natural outbreak of hoof and mouth disease and “mad cow” disease is a warning of both how dangerous such attacks can be and how much more effort is needed to detect and respond to them.

Within the United States, we need to redefine the federal-state-local relationship in responding to emergencies so we have the most workable possible arrangements for defending and responding to all forms of CBRN attack. Many forms of biological attack, and any nuclear attack, would saturate and overload local capabilities very quickly. Unless there are state and federal defense and response capabilities that can be tailored quickly and flexibly to aid in a given attack, thousands or even millions of Americans might die which an effective program might prevent.

At an international level, biological attacks create the need for integrated response plans that can rush capabilities from one country to another, and deal with any kind of outbreak of human and agricultural disease. International efforts to stockpile vaccines and antibiotics, develop common travel and quarantine procedures, develop common warning and public health approaches could prove critical in treating and containing an emergency. Cost-effectiveness would also be a critical issue.

## **Information Warfare and Defense**

As we prioritize risk and solutions, we must also systematically reexamine critical infrastructure protection in the light of our growing dependence on national and global information systems. This does not mean focusing on day-to-day cybercrime, “cracking, or hacking.

Once again, we must distinguish what threats really have national priority and the private sector must assume virtually all of the responsibility for its own defense. The same is true of the normal operations of federal, state, and local governments; universities and NGOs; and utilities.

Information systems and future critical infrastructure systems cannot be designed simply for cost effectiveness, ease of use, or out of carelessness and neglect. There must be Draconian criminal civil and legal liability for failing to create systems with state of the art defenses, controlled degradation, and rapid reconstitution. The same must be true of fixing existing systems. Federal, state, and local regulation must develop and enforce suitable standards. Insurance companies must make performance a condition of insurance, and the courts must punish companies and CEOs who fail to meet the proper standards.

At the same time, we and our allies must prepare for much higher levels of cyberwarfare and much more serious levels of attack on our critical infrastructure. Federal and state agencies must develop a cyberwarfare and critical infrastructure component. We must develop the capability to protect and repair critical regional and national systems ranging from information systems to power grids and pipeline systems in the face of major terrorist or asymmetric attack.

The Department of Defense and our intelligence agencies must develop a major cyber counterattack capability and national policy must make it clear that we will be just as ruthless in counterattacking any information system terrorists use to attack the US as we will be in responding to physical attacks. We must make it clear that national policy calls for destroying the

information systems and critical information systems of any nation that conducts asymmetric attacks or shelters terrorists who conduct attacks on their soil – even if this means destroying much of the economy of such states.

At the same time, this again is a global problem. Efforts have already been made to cooperate in fighting cybercrime. A dedicated NATO effort to deal with cyberwarfare, backed by clear commercial standards for data protection, liability, recovery capability and other defense measures will be equally critical. The same will be true of forging similar cooperation with our other allies.

## **Rethinking Key Aspects of Our Economy and Global Commerce**

We have just begun to rethink other aspect of our national and international economy, and much will depend on how the threat of terrorism evolves, and how serious an effort the world is willing to make to meet it. There are, however, at least two additional areas where simply reforming US capabilities will clearly not be cost-effective or meet the need.

- **An International Approach to Transportation, Hazardous Material, High Risk Facility, and Critical Infrastructure Security**

The US and its allies should pursue the creation of common security standards for air, road, rail, and maritime traffic, airport security, port security, security for containers ports and shipments, energy, and hazardous material shipments. Some common standards for the protection of key commuter facilities like subways, critical infrastructure facilities like nuclear power plants, plants producing or storing large amounts of hazardous materials, and key public facilities and government buildings may also be needed.

- **Rethinking Insurance Laws and Regulations**

Some form of common approach to insurance, best practices, liability, and other risks needs to be examined. International insurance and the handling of common risk pools could be critical to limiting cost. This is particularly true because improvements in the protection of information systems and critical infrastructure protection are likely to change the focus of asymmetric and terrorist attacks. Food processing might become the next focus of attack, to be followed by attacks on medical services or the pharmaceutical industry.

## **Rethinking the Problem of Human Rights and Immigration**

Nothing we or our allies do will be totally free of at least some human rights implications. On a national level, we need to find ways to ensure that we properly measure the human rights impacts of every step we take, and explicitly consider the merits of alternatives in such terms. We do need to rush action now, but we cannot continue to rush forward without some form of “human rights impact” analysis in the future, and we should probably sunset every step with major human rights implications to ensure it receives proper review in the future.

Up until now, the industrialized world has tended to deal with such trade-offs on almost a purely national basis, and some of the solutions have been classified. Every should be a subject of both national and international debate. No sacrifice should be made casually or unthinkingly, any more than we should put lives at risk for the sake of rigid and doctrinaire approaches to civil liberties.

We should also consider paying compensation where we do abridge the rights of individuals. This cannot make up for some of the human costs of our mistakes, but it can redress many. The right to compensation will also ensure suitable review, and act as clear proof of innocence. It will not prevent urgent action but it will identify excessive action and compensate for inevitable mistakes.

We need to carefully examine the solutions and procedures of other states find to dealing with terrorism and asymmetric warfare to see if they have better answers. We need to exploit every opportunity to find international solutions that minimize the impact on civil liberties.

It is also clear, however, that legal and especially illegal immigration presents special problems. Immigration has long been seen largely as a national problem, and not a global security problem. At the same time, few industrialized nations have attempted to fully analyze the trade-offs between the need for additional labor to compensate for their aging work force, the cultural impact on their society, and the need to preserve human rights and tolerate cultural diversity.

It may well be impossible to develop anything approaching a common international strategy to dealing with immigration, human rights, and security, but the West should at least try. A purely national series of efforts is unlikely to meet either security or human needs and is likely to exacerbate tensions between the West and the Islamic world.

### **Rethinking Globalism, Foreign Assistance and National Outreach Programs in the Light of Terrorist and Asymmetric Threats**

The West cannot afford to blunder into a “clash of civilizations” with the Islamic world by default. There is a clear need to coordinate better on information programs, foreign aid, and every other aspect of outreach activity to try to bridge the growing gap between the West and Islamic world.

While the relationship between the West and Islamic world is part of the structural problem of terrorism, the West also needs to make equally aggressive in making the case for global economic development and growth. The next set of terrorist attacks could have a very different cause and come from a different part of the world.

The growing tension over “globalism” – which is a reaction to many different patterns of change – illustrates the broader problems that North-South tensions create. In the process, the West needs to look for alliance with the successes in the developing world and pay close attention to the “tigers,” China, and to joint efforts with long-developed Asian powers like Japan.

## **Rethinking Arms and Export Controls**

Much of the transatlantic debate over the CW, ABM Treaty, BWC, and CTTBT has avoided coming to grips in detail with the threat of asymmetric attacks and terrorism, and has a heritage of focusing on large-scale conventional war fighting.

The same has been true of export controls. A joint effort at comprehensive review of how to change arms control agreements and export controls -- looking at the CBRN and advanced technology threat as a whole -- is needed to develop a more effective common strategy.

## **Anti-Proliferation, Deterrence, and Retaliation**

The US and its allies should at least consider cooperation in creating a form of extended deterrence and military retaliation against any nation that uses weapons of mass destruction against a nation without such weapons, or aids or tolerates a terrorist movement that uses such weapons.

At least on the part of the US, this should involve the tacit threat of escalating to the use of nuclear weapons. Arms control and well-meaning security agreements are probably not going to be enough. Limiting the worst forms of asymmetric warfare and terrorism are going to take sticks as well as carrots.

## **Beyond September 11<sup>th</sup>: the Future We Still Had to Face Even if No Attacks Had Ever Occurred**

At one level, taking these steps may seem like a daunting set of challenges. At another level, they may seem like an exaggerated over-response to what so far has been a relatively narrow set of attacks on the US. In reality, however, such a strategy is not so much a response to the particular threat that emerged during the attacks on the Pentagon and World Trade Center as a reaction to forces that have long been at work and which the West must ultimately deal with either actively or by default.

Many analysts saw that some form of major new terrorist or asymmetric attacks were nearly inevitable for years before these threats became a grim reality. The idea of an easy transition to a "new world order" or the "end of history" has always bordered on mindless intellectual infantilism. The same is true of the idea that end of the Cold War brought an end to major military and security challenges to the West.

Virtually every area where the US and Europe need to improve their cooperation and strategy today was also a priority on September 10<sup>th</sup>. If anything has changed, it is that we now have had a clear warning.

It is all too true that nothing we do to implement an effective US or international strategy will be quick, cheap, or easy. Similarly, no one can predict with any certainty just how serious the future threats to Europe and the US will be. In broad terms, however, each step in the strategy I have

outlined will be necessary in some form simply to deal with the evolving complexity of the world we live in, changes in our national vulnerability, and the need to change our alliances.

Equally important, the level of threat we must respond to in the future – and the cost of that respond -- will be heavily dependent on how well we begin to respond now and over the next few years. At this point in time, limited action and investment, and improved international cooperation may well be able to accomplish a great deal. It may deter the massive escalation of future threats, and sharply reduce every aspect of the political, human, and economic costs involved. Waiting for disaster is a kind of strategy; it is rarely a successful one.

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<sup>i</sup> World Health Organization, Health Aspects of Biological Weapons, Geneva, WHO, 1970, pp. 98-99.

<sup>ii</sup> Office of Technology Assessment, Proliferation of Weapons of Mass Destruction: Assessing the Risks, OTA-ISC-559, US Congress, 1993, pp. 53-53.