

GLOBAL THREATS AND CHALLENGES: THE DECADES AHEAD

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"There are times when America and America alone can and
should make the difference for peace." *President Clinton*

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"Everywhere ... they look to us as the country that provides
for their security and their safety and their freedom."

Secretary of Defense Cohen

Mr. Chairman, I am again pleased to have the opportunity to provide the Defense Intelligence Agency's perspective on the threats and challenges confronting the United States now and in the decades ahead.

The testimony I provided before the Committee last February reflected the extensive analysis done by the Defense Intelligence Community in support of the Joint Strategy Review and the Quadrennial Defense Review. The conclusions drawn from that effort were based on our understanding of the most important trends and factors shaping the international security environment over the long term. *Much of what I testified to last year remains valid.* The "headline" events of the past year – confrontation with Iraq, developments in Bosnia, NATO expansion, unrest in Central Africa, the troubled Middle East peace process, rogue state efforts to acquire advanced weapons, and the economic crisis in Asia – reinforce the central themes from that testimony:

- *The turmoil and uncertainty that have characterized international affairs since the end of the Cold War will last at least another decade. During this transition period, the United States will*

continue to face a dynamic, complex, and uncertain security environment.

- *The "bi-polar" (Cold War) security framework has given way to a more generalized global set of partners, competitors, and potential adversaries, the troubling proliferation of "negative" technologies, and the advent of numerous persistent small-conflict circumstances. US security policy planners and operators must carefully study these emerging circumstances in order to understand this evolving paradigm.*

- *Despite our tremendous power and influence, threats and threatening conditions exist today. Others will emerge over time. The most important of these involve challenges posed by competing regional powers, including a host of very complex and demanding local, regional, and transnational circumstances and conditions.*

- *The combined impact of rapidly advancing technology and human ingenuity will continue to alter the nature of warfare and the characteristics and capabilities of future threats. This change could be very positive given the right circumstances, but the potential, indeed the trend, for continued proliferation of missile technology, weapons of mass destruction, and related capabilities, is negative and of growing concern.*

Critical Assumptions

In attempting to analyze this uncertain environment, we make two basic assumptions:

- *The United States will remain the dominant global power* – politically, economically, and militarily – and will continue its *active engagement* in world affairs. If either our power or our willingness to remain globally engaged diminish significantly, then the overview outlined here would change accordingly.

- *The future unfolds along discernible (linear) lines*, as reflected in current trends and conditions. History tells us that this will not occur – at least not in all of the dimensions addressed here. Thus, our "best estimate" will no doubt prove partially wrong. In order to deal with this dynamic, we in Defense Intelligence will continue to consider and analyze alternative (nonlinear) futures.

Prolonged Turmoil and Uncertainty

"There are many truths, some valid for one, some for another.

Things are not what they seem ... It is a lesson we must learn

and relearn because we keep searching for certainty, and

certainty does not exist." Harrison Salisbury

The objective global conditions that have driven the turmoil and instability of the post-Cold War era remain largely in effect. The most important include:

• ***Uneven economic and demographic development*** ... population in the developed world remains relatively stable, but the number of people in the developing world will increase some 25% over the coming two decades. Rapid urbanization continues throughout Asia, Africa, and Latin America. Meanwhile, although we expect global economic growth to continue over the long term (despite recent events in Asia), progress will be sporadic, particularly throughout the so-called 3rd World. These conditions will strain the leadership, resources, and infrastructure of the developing states. Many will struggle to cope. Some will undoubtedly fail.

• ***Disparities in wealth and resource distribution*** ... the developed (mostly northern) world accounts for some three-quarters of global wealth and consumes the lion's share of the world's resources, with less than a quarter of global population. Local or regional shortages of fresh water, arable land, food, fisheries, and energy are already causing tensions. Resource shortages will be a source of regional conflict and will retard environmental, health, and economic progress. These general conditions will not "improve" significantly over the next decade or so, exacerbating north-south and inter-regional tensions and contributing to regional instability.

• ***Ethnic, religious, cultural strife*** ... political and cultural entities will continue to align along ethnocentric, theocratic, and linguistic lines. Tensions between and among various ethnic groups, and between them and established governments, will continue. As evidenced by the genocide in Bosnia, the Great Lakes region of Africa, and the former Zaire, ethnic-based conflict is often brutal and intractable.

• ***Broad, rapid technology advances and attendant proliferation of advanced weapons*** ... the rapid pace of technological change is straining the social order in both developed and developing nations. Technological competition is an increasingly important aspect of relations between advanced states. The gap between information and technology "haves and have-nots" will become a key issue for future international relations. Meanwhile, the proliferation of weapons and other military technologies will alter regional arms balances and, in many cases, undermine stability.

• ***Uncertain regional and global security structures*** ... the dramatic and complex changes underway in many regions continue to tax "Cold War" security structures, precepts, and organizations. Many of these are ill suited to the new era. As evidenced by the problems and tensions associated with NATO expansion, the process of adapting old and developing new structures is proving complex and sometimes confrontational.

• ***International criminal activity with national security overtones*** ... terrorism, drug trafficking, and other forms of transnational crime will continue as criminal groups and individuals take advantage of advances in global communications, transportation, finance, and other favorable circumstances. The potential for such groups to have access to and to use weapons that can cause large numbers of casualties will increase. Countering international crime will become an increasingly important dimension of US security policy.

• ***Rogues, renegades, and outlaws*** ... "isolated" individuals, sub-national groups, and states – for instance Iraq, Iran, and Libya – will continue to exist. These "rogues" will frequently engage in behavior outside commonly accepted international norms – violent extremism, terror, and unacceptable use of military force – as they struggle to improve their position while undermining the established order.

• ***Western cultural expansion*** ... the global expansion and perceived dominance of "western" (and particularly American) values, ideals, culture, and institutions is very threatening to some individuals, groups, and states. Efforts to slow, halt, prevent, or undo this phenomenon, though generally futile, will give rise to "anti-American" behavior of all kinds. While there is not at present an ideology that is both inimical to our interests and widely appealing, one could conceivably arise under the rhetoric of providing a counterpoint to western culture.

- **Natural disasters and environmental issues** ... natural disasters of all types will continue to occur, often with little or no warning. Global awareness of the human consequences will keep pressure on governments and leaders to respond. Meanwhile, mankind's global activities – particularly population growth, resource consumption, pollution, urbanization, industrialization, "desertification," and deforestation – will increasingly impact climate and weather patterns, strain fragile ecosystems, and put more pressure on health and social support systems. All of these issues will take on increased national security import.

- **Other critical uncertainties** ... Russia and China in transition, Korea's evolution, the viability of the nation-state, the outcome of the Middle East peace process, the future of Bosnia, internecine conflict in Africa, and an array of upcoming leadership changes, are but a few of the many key uncertainties which add to the general turmoil in the global condition.

These factors bring great stress to the international order. No condition, circumstance, or power is likely to emerge over the next 10-20 years, which will somehow transcend them and lead to a more stable global order. The international security environment will remain dynamic, complex, and challenging for US security policy planners and operators.

The New Global Threat Paradigm

"While the future is there for anyone to change ... it's easier

sometimes to change the past." Jackson Browne

During the Cold War, the predominance of the Soviet threat, and the bi-polar nature of superpower competition, allowed for substantial continuity in US defense planning and force development.

Defending the 'western way of life' against Soviet expansion provided the basic context for US security policy decisionmaking. Meanwhile, Soviet doctrine, warfighting concepts, and equipment – combined with Warsaw Pact-NATO force ratios and mobilization potential, and the unique terrain and geographic features of Central Europe – provided the basis for our doctrine, strategy, tactics, and materiel development, our force sizing criteria, our equipment, operational, and organizational requirements, and our functional characteristics. Within this broad "Soviet threat" paradigm, other force requirements were generally considered lesser-included cases, on the assumption that if the US could handle the Soviets in Central Europe, we could also handle everything else.

One of the more intriguing aspects of the post Cold War era is that while the global strategic threat to US interests has greatly diminished in comparison to the Soviet era, the residual regional and transnational threats are much more complex and diverse, and much harder to plan for. For instance, Iraq and North Korea, currently our most likely opponents in a major theater conflict, pose significantly different challenges in terms of their tactics, equipment, and capabilities, and the theater terrain and locale. Neither state presents a pacing technology threat, although it is likely that North Korea has a limited nuclear capability and the capability to engage in chemical warfare. Meanwhile, Russia and our European and Asian allies represent our most important military technological "competitors," but we are not likely to face any of these states in a direct military conflict during the next ten-to-twenty years. Similarly, our most pressing current challenges – terrorism, narcotics trafficking, and other criminal activity with national security implications – and the biggest emerging threats – weapons of mass destruction (WMD) and missile proliferation – have limited utility as the basis for sizing and defining future force requirements.

This complexity and diversity presents a unique challenge for Defense Intelligence: ***to discern, from the***

general mix of global political, economic, military, technological, and social conditions, a specific characterization of extant, emerging, and potential threats and circumstances. Our efforts to address this challenge and establish a new threat paradigm center on three general factors:

- ***A recognition of conditions that would threaten US interests ...*** for instance, the rise of an ideology inimical to US ideals, concepts, and values; denial of access to key resources and markets; regional or local instability in areas of US vital interest; and the emergence of foreign economic, technological, or military capabilities that undermine our general economic position, or our deterrent and warfighting superiority.
- ***An understanding of the reasons why peoples, leaders, and states engage in warfare ...*** to include competition grounded in antiquity; internal or external pressures on leaders, governments, and states; competition over access to or control of markets and resources; and dissatisfaction with present conditions or the perceived "likely" future.
- ***An understanding of the interaction between a potential enemy's capability ...*** which we are generally very good at determining; ***intentions ...*** which are difficult to anticipate and understand without indwelling or invasive sources; and ***will ...*** which is a function of evolving conditions, as well as the emotions and perceptions of leaders and citizens. Will is transient, ephemeral, and nearly impossible to know with certainty.

Using this general analytic framework, and our assessment of the key factors shaping the global security environment, we can outline the three central features of the new global paradigm.

- First, it is clear that ***the bipolar world has given way to a more generalized multi-polar, global set of partners, competitors, potential adversaries, and conflict circumstances,*** some of which do not conform to traditional nation-state or alliance definitions but rather transcend political boundaries and territorial limitations. We classify these entities as follows:

- ***Cooperative partners ...*** who generally share US values and usually can be considered allies (particularly in the military field).
- ***Uncooperative partners ...*** who generally share our values but may at times be inclined to frustrate our policies to further their own interests.
- ***Competitors ...*** who are generally neutral regarding our values and interests, will compete with us in a variety of fora, but are not military adversaries.
- ***Benign adversaries ...*** who generally conform to contrary values and interests, but lack the economic or military wherewithal to actively oppose us.
- ***Renegade adversaries ...*** who engage in unacceptable behavior frequently involving military force and violence, are current or potential enemies of the US, and against whom we must consider the active use of military force.

It is important to note that, circumstantially, a nation-state or non-state entity can be a cooperative partner, an uncooperative partner, and even a competitor, concurrently, depending on the issue and conditions extant.

And finally...

- **Emergency conditions** ... usually involving humanitarian disasters, attempts at "deconfliction" of warring groups, and/or the restoration of civil control – which could require the commitment of our military forces, often in threatening and sometimes lethal conditions.

- Second, the **"traditional conflict spectrum"** – ranging from conflict short of war at the low end, through conventional (both local and regional) war, to global nuclear war at the high end – remains valid in that the US military could conceivably engage in operations along the entire spectrum. However, within that broad spectrum, some conditions and circumstances are more likely than others:

- **Operations at the lower end of the spectrum** – military assistance, various peacekeeping contingencies, operations other than war, etc. – **are most likely**.

- **Limited local or regional conflict is likely to occur.**

- **Large-scale regional war or global nuclear war is unlikely** to occur.

- **Chemical and biological warfare will probably occur**, generally within the context of very limited use and very restricted kinds of conflict.

- **Terrorism will remain a transnational problem** but will mainly be a factor at the lower end of the conflict spectrum.

- **New (or innovative modifications of old) forms of warfare**, many of which transcend the entire conflict spectrum, are emerging and will likely be employed (these will be discussed in more detail in the **Future Warfare Trends** section beginning on page 18 below).

- **Information warfare** ... actions taken to degrade or manipulate an adversary's information systems while defending one's own.

- **Cybernetic warfare** ... a form of information warfare involving operations to disrupt, deny, corrupt, or destroy information resident in computers and computer networks.

- **Transnational Infrastructure warfare** ... attacking a nation's key industries and utilities – telecommunications, energy and power, transportation, governmental operations and services, emergency services, financial, manufacturing, etc.

- **Asymmetric warfare** ... attacking an adversary's weaknesses, avoiding his strengths, while preventing him from doing the same to you, using asymmetric means such as terrorism.

- **Asynchronous warfare** ... a pre-selected or delayed attack on an adversary taking advantage of the passage of time to develop a strategic opportunity or exploit a future vulnerability.

- Third, *the likelihood that several separate events or conditions will occur simultaneously*, or concurrently, over time, thereby amplifying and compounding their impact. One related aspect of this phenomenon is that the daily global engagement posture of the US military will limit the forces and resources available to respond immediately to multiple crises. Anticipating a threat environment in which more than one situation will require a direct military response at the same time is critical to contingency and operational planning.

Beyond this general description of the new global threat paradigm, we are also able to identify a number of specific threats and potentially threatening conditions. The most important of these are outlined below.

Extant, Emerging, and Potential Threats

"The greatest threat to America today is not Iraq, Iran, North Korea, terrorism, or weapons of mass destruction. It is the potential that we will become too complacent during this time of peace." *General Henry Shelton, Chairman of the Joint Chiefs of Staff*

No state has the potential to match the worldwide strength and influence of the United States – in terms of combined political, economic, technological, military, and cultural power – over the next two decades. However, *a select group of states – Russia, China, Japan, Europe (collectively or a coalition of key European nations), and India – will likely possess capabilities that are an echelon above other regional powers and nations*. These major powers will routinely exert influence within their own regions, and in some cases or dimensions, will also exert influence on a global scale. They will retain unique capabilities to either assist or frustrate US interests and policies. Each nation will also continue to compete for regional and global influence, and for access to or control of resources, markets, and technology. Relations between and among these major powers and the US – particularly the nature and extent of their competition – will be a primary factor shaping the future global security environment. In this regard, there are two potential – though unlikely – developments that would be especially troubling for the US:

- *The formation of an anti-US alliance* involving two or more of the major powers or a similar regional alliance led by a single major power.
- *An expansion of major power competition from the political-economic to the military sphere.*

Beyond this interaction between the major powers, there are a wide variety of conditions, circumstances, states, and individuals who either now do, or could in the future, threaten the vital interests of the United States. We generally classify these current and potential threats as either transnational or regional.

Key Transnational Threats and Issues

Proliferation

The proliferation of nuclear, chemical, and biological weapons, missiles, and other key technologies remains the greatest direct threat to US interests worldwide. More than 20 states are actively pursuing weapons of mass destruction (WMD), motivated either by regional competition or the desire to develop a deterrent or counter to the concomitant superiority of others, including the US.

- ***Nuclear proliferation*** – both weapons and technology – presents a continuing significant threat. While nuclear weapons are generally difficult and expensive to obtain, and counter-proliferation efforts have been successful to date, we expect ***the number of nuclear states to slowly increase into the next century.*** We are also concerned with the threat posed by ***"peaceful nuclear technology"*** – due to unsafe or faulty technical designs, aging facilities, inadequate safeguards and security, improper handling, etc. – which will grow as more nuclear technology is used over the coming decades.
- ***Chemical and biological weapons*** – being generally easier to develop, hide, and deploy than nuclear weapons – will be more widely proliferated and ***have a high probability of being used over the next two decades.*** The technology and materials to produce relatively sophisticated chemical weapons are readily available, often as dual-use commercial items. Many states see chemical weapons as a cost-effective alternative to developing large conventional capabilities. Biological agents are more difficult to weaponize, handle, and store, but the information and technology to do so is available. We are particularly concerned about the increasing potential for chemical and biological weapons use by sub-national groups or individuals – that are very difficult to identify and to deter.
- ***Ballistic and cruise missile proliferation*** presents a growing challenge to deployed US forces worldwide. While the types of missiles most likely to be proliferated will be a generation or two behind the global state of the art, states that acquire them will have increased or enhanced capabilities for delivering WMD or conventional payloads inter-regionally against fixed targets. We are particularly concerned about two trends:
 - The significant increase we expect over the next two decades in the numbers of ***ballistic missiles with ranges between 300 and 1,500 kilometers.***
 - The potential for ***land attack cruise missiles to be more widely proliferated.***
- ***Certain key technologies***, such as ***nanotechnology*** – which allows advanced functions to be achieved in very small and lightweight form – are important to the development and effective delivery of WMD. Information-related technology, including encryption, high volume data handling, complex computational capability, and offensive and defensive information warfare capabilities, are also critical proliferation concerns.

Terrorism

Terrorism will continue as a global challenge so long as groups and individuals oppose established political, economic, and social processes due to perceived ethnic, religious, nationalist, political, and other forms of discrimination. In some cases, the use of extreme violence for some identifiable goal will be more criminal and less political than in the past, blurring the line between terrorism and common crime. The characteristics of the most effective "terrorists groups" – highly compartmented operations

planning, good cover and security, extreme suspicion of outsiders, and ruthlessness – make them very challenging intelligence targets. The following emerging trends are particularly noteworthy:

- ***The terrorist threat to the US will increase*** – both abroad and here at home – as groups exploit technological advances in communications and transportation, forgery and counterfeiting, cover and concealment, and weapons and explosives.
- ***Middle East-based terrorism, which remains the primary politically-motivated terrorist threat*** to US interests, will increase over the next two decades, in part because of growing demographic and resource tensions.
- ***Many state sponsors will be less active than in the past, but Iran and private entities (such as Usama Bin Ladin) will continue to sponsor*** a wide range of terrorist activities.
- In some cases, such as in Algeria, ***internal terrorism will threaten the viability of the national government*** and will lead to spiraling violence.
- ***Terrorists groups are becoming increasingly multinational, more associated with criminal activity,*** and less responsive to external influences.
- ***Counterterrorism successes will lead to more "unknown and new name" groups*** that are less likely to claim responsibility for their actions.
- ***Advanced and exotic weapons (including WMD) will be increasingly available*** and the will and intent of terrorists groups to use them will likely increase. But terrorist capabilities to use such weapons will remain limited for a number of technological, operational, and other reasons.
- ***Chemical or biological agents would likely be the choice if WMD were employed.*** The Aum Shin-Rykyo chemical attacks are harbingers of future possibilities.

Narcotics

International drug cultivation, production, transport, and use will remain a major source of instability, both within drug producing, transit, and target countries, and between trafficking and consumer nations. The connection between drug cartels, corruption, and antigovernment activities (terrorism and insurgency) will increase as the narcotics trade provides an important funding source for criminal and antigovernment groups. States with weak democratic traditions and poor economic performance and prospects will be particularly susceptible. Counternarcotic activities will become more complex and difficult to discern as new areas of cultivation and transit emerge and traffickers exploit advances in technology, communications, transportation, and finance. ***Illicit synthetic drug production in urban areas is a significant and growing threat.***

Other International Crime

International organized crime will pose an increasing threat to US interests. Criminal cartels are becoming more sophisticated at exploiting technology, developing or taking control of "legitimate" commercial activities, and seeking to directly influence – through infiltration, manipulation, and bribery – local, state, and national governments, legitimate transnational organizations, and businesses. Increased cooperation between independent criminal elements, including terrorist organizations, is likely. ***We expect that greater interaction between the US military and other federal agencies will be required to counter this growing threat.***

Key Regional Threats and Issues

North Korea – A Failing State

North Korea remains in crisis. As the pressure builds on the economy, society, and military, the potential for internal collapse, instability, and leadership change is rising. ***Some form of significant – perhaps violent – change is likely in the next five years.*** There are four basic alternatives: leadership change, government collapse, negotiated accommodation with the South, or major economic reform. Any of these scenarios will have significant security challenges for the US.

In the meantime, *North Korea's overall military readiness continues to erode in line with its worsening economic situation.* However, because the North retains significant, forward-deployed strike systems – artillery, missiles, rocket launchers, and aircraft – it will maintain its capability to inflict enormous damage on heavily populated northern areas of South Korea with little or no warning. In fact, ***over the next several years Pyongyang's WMD, missile, artillery, and special operations force capabilities will likely improve, despite***

China's top priorities will continue to be economic development, modernization, and domestic political stability. The Chinese regime is

the dire economic situation. Continued vigilance and readiness, for both "implosion and explosion" scenarios, is required. /Tired.

China – Another Transformation

likely to become more responsive to the desires and needs of its people, but not significantly more democratic or pro-Western. Beijing's foreign policy will seek to avoid conflict and sustain the trade, investment, and access to technology that are essential to economic development. Within this cooperative framework, however, several points of friction will persist:

- ***The Taiwan issue remains the major potential flashpoint.*** US policy supports peaceful evolution in cross-straits relations, but Beijing believes US policy encourages the independence movement of Taiwan, deliberately or inadvertently.
- ***Beijing believes the US is bent on containing, dividing, and westernizing China*** and will continue to pursue policies designed to counter perceived US efforts toward that end.
- ***China perceives Japan as its principal Asian regional rival,*** and views US-Japanese defense cooperation as helpful only if it limits the emergence of a long-term Japanese military threat.
- ***Other regional territorial disputes*** may flare into periodic crisis.
- ***China's ethnic separatist movements are another potential point of conflict,*** especially in Tibet and northwest China.

China's military strategy will continue to emphasize the development of a survivable nuclear retaliatory capability as a deterrent against the use of nuclear weapons by the United States, Russia, or India. ***There is no indication that China will field the much larger number of missiles necessary to shift from a minimalist, retaliation strategy to a first-strike strategy.***

China's conventional force modernization will continue at a measured pace, with emphasis on developing a more credible military threat against Taiwan (though not the large amphibious capability necessary for invasion), and protecting claims in the South China Sea against Southeast Asian rivals. ***China is not likely to build the capability to project large conventional forces beyond its immediate borders or nearby seas.***

- The Chinese military will decrease in size during the next two decades to conserve funds for military modernization. Absent a major resurgence of Russian military power, the air and naval threat from the east is seen as much greater than the ground threat from the north. ***China's top military priority will therefore remain modernizing its air, air defense, and naval forces.*** With the exception of several select units, the ground forces will continue to receive relatively low priority.
- Beijing's emphasis on defense requires the PLA Navy in particular to expand its operating area further out from the mainland. ***The Navy's emphasis is on offensive strike capability against surface ships, including more modern fighters, aerial refueling, and anti-ship cruise missiles launched from surface, sub-surface, and aerial platforms.***
- ***China will continue to actively seek advanced technology***, including a much-improved knowledge base from "overseas" students, and from cooperative nations and commercial partners, and will proliferate some technical capabilities as it sells selected weapons systems to other countries.

Russia – Perplexing Evolution

Russia will remain focused on internal political, economic, and social imperatives for at least the next decade. The periodic turmoil that has plagued Moscow since the late 1980s will continue. Immature political institutions, economic weakness, organized crime, and corruption will heighten the potential for political instability, particularly during periods of leadership transition.

As with the other components of Russia's social order, economic progress is the key to the future of Russia's military. Over the next several years, Moscow will be hard pressed to maintain the modicum of conventional military capability it now has. Barring a significant increase in Russia's external threat perception, ***non-military issues will continue to receive priority in terms of national leadership attention, resources, and popular concern.*** Moreover, other para-military and internal security forces will continue to compete with the Ministry of Defense for scarce security resources.

- ***There is little chance that Russia will reemerge as a global military peer*** competitor to the US over the next two decades. During this period, ***Russia's strategic nuclear forces will remain the backbone of Moscow's military might***, preserving Russia's perception of great power status and protecting its vital security interests.
- ***The size, characteristics, and capabilities of Russia's conventional forces could vary widely over the next 20 years***, depending on the outcome of numerous unsettled issues. Among the most important of these are: the timing, pace, and extent of Russia's economic recovery; the "urgency" embodied in Russian external threat perceptions; the ability to achieve political and cultural stability; the size of Russia's defense investments; whether or not the national leadership achieves consensus on a blueprint for Military Reform (including restructuring and "recapitalizing" the defense industry); and Moscow's success at restoring the "intangible" components of military

operational effectiveness (effective leadership, readiness, morale, sustainment, etc.). There are two basic alternatives:

- ***Military reform fails*** – due to continued underfunding, indecision, and leadership indifference – and Russia's future conventional forces present about the same (or even a reduced) level of threat to US interests as does the Russian military today. This alternative becomes more likely the longer Russia's economic problems persist, defense budgets decline or remain relatively stagnant, there is no consensus on the direction for defense reform, and the national leadership continues to neglect the needs of the military.
- ***Military reform succeeds*** and the Russian armed forces emerge smaller, but more modern and capable. The keys to this future are that the Russian economy achieves sustained, steady growth, Russia's defense burden stabilizes, a national consensus on military reform emerges, and the General Staff is "put back in charge" of the reform process. These developments would allow the military to sustain adequate levels of research and development, improve training, and complete the restructuring of forces over the near term, to begin moderate rates of series production of a new generation of combat systems around 2005, and reemerge beyond then with greatly improved capabilities for regional military operations.

Bosnia – Progress with Permanence

International Peacekeeping forces in Bosnia continue to operate in a complex inter-ethnic environment that poses significant challenges to the establishment of a stable and enduring peace. ***We believe the Bosnian factions will continue to generally comply with the military aspects of the Dayton Accords and Stabilization Force directives, and will not engage in widespread fighting between themselves, so long as Peacekeeping forces remain credible.*** However, if civil implementation of Dayton lags, the prospects for renewed fighting would increase significantly following the withdrawal of stabilizing forces, due to the unrealized aims of the Bosnian factions. The threat to US and allied forces from organized indigenous military and police forces will remain low. Nonetheless, the Stabilization Force continues to face a threat from mines and various forms of low-level, sporadic and random violence, which could include high profile attacks by rogue elements or terrorists. ***Pervasive international engagement -- both political and economic -- will be necessary to prevent de facto or even permanent division of Bosnia along ethnic lines.***

Iraq – Continued Belligerence

Iraq will remain capable of limited incursions against its neighbors but incapable of holding against a determined "western" counterattack. Saddam retains the goal of dominating Kuwait, but his options to destabilize the Gulf region and the GCC will remain limited so long as UN sanctions are in place and effective.

- ***Iraq's military capability continues to erode.*** Saddam's forces have significant weaknesses – in leadership, morale, readiness, logistics, and training – that would limit their effectiveness in combat.
- ***Iraq continues limited efforts to preserve and expand its missile and WMD capabilities*** and to hide that activity from the international community. If sanctions are removed, these efforts will receive increased emphasis, along with efforts to improve Baghdad's air defense and ground forces capabilities.

- ***Iraq will remain a threat to US regional policies and interests*** and to the safety and security of Iraqi opposition groups, so long as Saddam remains in power. His presence demands the continued enforcement of UN sanctions to limit Iraq's military expansion, and the continued commitment of US power to deter Iraqi aggression.

- While predicting the nature of a post-Saddam government is highly speculative, ***Iraq is likely to maintain its regional ambitions***, and will continue to place a high premium on military power, well into the future. The perceived threat from neighboring nations will also motivate any future Iraqi government to sustain and enhance Baghdad's military capability.

Iran – A Chance for Change

Iran is deliberately building up its military and developing new capabilities, motivated by its desire to provide a means to intimidate its Gulf Arab neighbors, to limit the regional influence of the west -- particularly the United States -- and to deter a resurgent Iraq or any other potential aggressor. Tehran will gradually overcome its near term economic difficulties, although progress will be slowed by the dual challenges of a rapidly growing population and uncertainties over the pace and extent of internal reform. Over the longer term, Iran will probably eschew some of its more visible unacceptable practices abroad and seek better relations with the US – although its early moves in this direction are likely to be tactical expedients. However, Tehran will not abandon its drive for regional hegemony and circumstantial domination or for increased WMD capabilities.

- ***Iran recognizes that it cannot hope to match US military power directly and therefore seeks asymmetric and asynchronous means*** to challenge the US indirectly: through subversion and terrorism directed against US and western interests; the development of air, air defense, missile, mine warfare, and naval capabilities to interdict maritime access in the Gulf and through the Strait of Hormuz; and the pursuit of WMD designed to deter the US and intimidate Tehran's neighbors. These efforts reflect a clear intent to build an offensive capability well beyond Iran's defensive needs. Iran will continue to seek more effective ways to use its single best defensive asset – the geography and terrain of the country.

- ***Given its internal difficulties, Iran's rearmament will proceed gradually.*** Over the next decade, Tehran will likely develop and deploy additional WMD and missile capabilities, make moderate progress in its ability to interdict shipping in and around the Strait of Hormuz and the Gulf, and limited progress in its air defense programs. Thereafter, depending on the pace of Iraq's military modernization, Iran will likely devote additional resources to develop its ground forces, which are its principal means of deterring and defending against Baghdad, as well as a significant internal and regional control mechanism for Tehran to use in its version of the future.

- Despite these gradual force improvements, ***the Iranian military will retain many of its current conventional force shortcomings*** – particularly command and control, maintenance, training, and equipment – which will limit its effectiveness against Iraq and the west.

India-Pakistan – Dangerous Circumstances

The tense rivalry between India and Pakistan remains an important security concern. ***India's economic growth is likely to continue at a brisk pace, while Pakistan's problems – including weak infrastructure, high illiteracy, weak political institutions, and the slow pace of reform – will temper economic growth. As a result, India's considerable military advantage is likely to increase, leaving Pakistan feeling more vulnerable, and more dependent on international moderating influences and its WMD, especially nuclear, deterrent.*** Both countries will remain beset by numerous internal

challenges to national unity. While India will continue to pursue improved ties to other Asian states and the west, proliferation concerns will remain a source of friction.

In the military sphere, *India and Pakistan both continue to view their security relationship in zero-sum terms, possess sufficient material to assemble a limited number of nuclear weapons, have short range ballistic missiles, and maintain large standing forces in close proximity across a tense line of control.* In short, although the prospect for major war between India and Pakistan is low at present, we remain concerned about the potential, particularly over the near term, for one of their occasional military clashes to escalate into a wider conflict. *Over the longer term, however, the threat of large-scale war should diminish.*

Latin America – Hopeful Progress

The outlook for democracy in Latin America is good. The acceptance of military subordination to civil control will expand and should be commonplace over the next two decades. Nevertheless, there will be a continuing susceptibility to setbacks and stresses rooted in the persistent political, social, and economic problems of many countries. *The scourge of narco-trafficking, related money laundering, weapons and contraband smuggling, illegal migration, and insurgency will remain the principal obstacles to stability and democratic progress.*

The prospect for interstate warfare in Latin America will remain low. Historic, unresolved border issues – such as the dispute between Peru and Ecuador – have the potential to erupt abruptly into armed conflict, but these conflicts will generally be limited in scope and duration.

With some notable exceptions, *relations between Latin American states and the US will remain positive and friendly.* There is virtually no threat of armed conflict with the US. However, the US military is likely to deploy to Latin America for operations at the lower end of conflict spectrum – natural disasters requiring humanitarian assistance, counterdrug operations, military assistance, etc. Evolving conditions in Cuba, Haiti, and several drug producing and transit countries may lead to some greater concern.

Greece–Turkey – Flashpoint

The situation in the Aegean will continue to be fragile. Though diplomacy has helped contain tensions, the potential for conflict remains. Ongoing disputes over territorial claims and Cyprus, advanced weapons proliferation into the region, and contentious economic issues have furthered tensions between the two NATO members.

Ankara's failure to obtain European Union membership has raised the sense of isolation for some Turks, while others have been "vindicated" in their anti-western rhetoric. Security assistance and economic cooperation with the US will help alleviate Turkish concerns, but any withdrawal of US interests in the next few years will exacerbate Turkish fears and frustration. These conditions could foster more extreme nationalism, and could undermine the government's efforts to sustain secular stability.

Sub-Saharan Africa – Tribal and Cultural Confrontation

Perhaps the greatest challenge for the future of Africa is the need for good governance, the rule of law, and respect for human rights. *Protracted tribal competition and conflict will continue to destabilize the Sub-Saharan region, exacerbated by population growth, poverty, and poor humanitarian conditions.*

Despite these festering problems, there are productive efforts by many Sub-Saharan countries to move toward more representative government and the pursuit of political pluralism. Some are addressing security concerns through greater regional cooperation and collective participation. Other African states have pursued security arrangements through private firms in lieu of state-to-state assistance.

Black and gray arms markets will continue to be the primary venue for military forces to acquire new

equipment. Small arms and light weapons – which are cheaper, easier to transfer, and require minimal maintenance – will be emphasized.

Relations between Sub-Saharan countries and the US will generally be friendly and positive as these nations seek increased US trade and economic investment.

Central Asia and The Caucasus – Future Challenge

The Caspian Macro region will be attractive as a relatively new global market for energy resources and infrastructure projects. ***International interest and investment in the oil and gas fields of this region will continue to grow*** in concert with the global demand for energy. Russia will likely acquiesce to both western and Asian investments as long as Russian entrepreneurs are included in the concessions. Turkey, Iran, and China will pursue greater economic and political involvement.

The region will continue to experience ethnic, tribal, and other forms of internecine conflict and it is probable that Central Asian problems and Central Asian involvement in ethnic issues will "spillover" into both China and Russia. Relations between the US and the various states of the region should remain "fair-to-good" as many explore economic ties to the west.

Future Warfare Trends

**"Any sufficiently advanced technology is virtually
indistinguishable from magic." *Arthur Clarke***

The Impact of Technology -- Technowar

The rapid pace of military technology advancement – particularly in the areas of precision weapons, information and communications – will continue. ***Major technological breakthroughs in military capability are likely in the next two decades. Some aspects of our technological dominance – especially those with commercial and industrial applications – will be difficult to maintain*** because the transfer of these capabilities will initially appear as purely civilian events. Perhaps our greatest challenge is that a rogue nation or sub-national group might acquire key technologies, which would lead to some form of strategic technical surprise.

Overall, the impact of applied automation and computers, electromagnetic warfare, brilliant sensors, and the other technologies listed below will lead to the rise of a military-techno culture in which time, space, speed, and other fundamental conditions are radically changed. ***These developments have the potential to dramatically alter the nature of warfare and the characteristics of future threats.***

- Nuclearization and the proliferation of WMD capabilities
- Precision munitions
- Electrodynamic weapons

- "Conventional" weapons of mass destruction
- Non-lethal weapons
- Information technology and cybernetic warfare
- Camouflage, cover, concealment, denial, and deception (C3D2)
- Techno-terrorism
- Nanotechnology
- Applied Biotechnologies

To date the development and integrated application of the most important military technologies and concepts has been limited to the advanced western militaries -- particularly the United States. One key reason is economic. In general, these technologies are very expensive to develop and maintain and most nations have emphasized other priorities since the end of the Cold War. In fact, non-US global defense spending has dropped some 40 percent since the late 1980s, and the "military modernization accounts" -- research and development, and procurement -- have been hit even harder. Moreover, during the same period, the global arms market has decreased by more than 50 percent. With reduced domestic procurement, declining foreign consumption, and other spending imperatives, many nations have had neither the motivation, the resources, nor the capability to pursue high technology military endeavors. Over the next decade, however, as post Cold War defense reorganizations are completed, defense industries stabilize, and funding (potentially) increases, these areas could see additional, albeit still limited, emphasis.

New (Modified) Forms of Warfare

Technology, combined with the creative genius of military thinkers around the world, is leading to the development and application of new forms of warfare, and the innovative modification of traditional military practices. While the US and its allies are the source of much of this innovation, others are motivated by the dominant military position of the US, and our demonstrated commitment to maintaining our military lead. This basic reality is forcing many of our adversaries (current and potential) to seek other means to attack our interests. Some of the more important are listed below:

- ***Information Warfare (IW)*** involves actions taken to degrade or manipulate an adversary's information systems while actively defending one's own. Over the next two decades, the threat to US information systems will increase as a number of foreign states and sub-national entities emphasize offensive and defensive information warfare strategies, doctrine, and capabilities. Current information on our vulnerabilities, and foreign intelligence initiatives in general, point to the following threats:

- ***Trusted insiders*** who use their direct access to destroy or manipulate the information or communications system from within.
- ***Modification*** of equipment ***during transport or storage.***
- ***Physical attack*** of key systems or nodes, including the insertion of modified or altered hardware.

- **Network penetration** to include hacking, exploitation, data manipulation, or the insertion of various forms of malicious code.
 - **Electronic attack** of various interconnecting links, sensors that provide data to the system, or other system components.
 - **Empowered agents** including "sponsored" or individual hackers, cyber-terrorists, criminals, or other individuals who degrade, destroy, or otherwise corrupt the system. In the most advanced case, empowered robotic agents, embedded in the system, could be used to take autonomous (timed) actions against the host or remote systems or networks (cyber war).
- **Cybernetic warfare (CYW)** is a distinct form of information warfare involving operations to disrupt, deny, corrupt, or destroy information resident in computers and computer networks. One particularly troubling form of "war in cyberspace" is the covert modification of an adversary's data and information systems. This form of warfare will grow in importance as technology makes new methods of attack possible. Cybernetic warfare defies traditional rules of time and distance, speed and tempo, and the conventional or traditional military capabilities of the opposing elements.
- **Transnational Infrastructure Warfare (TIW)** involves attacking a nation's or sub-national entity's key industries and utilities – to include telecommunications, banking and finance, transportation, water, government operations, emergency services, energy and power, and manufacturing. These industries normally have key linkages and interdependencies, which could significantly increase the impact of an attack on a single component. ***Threats to critical infrastructure include those from nation-states, state-sponsored sub-national groups, international and domestic terrorists, criminal elements, computer hackers, and insiders.***
- **Asymmetric warfare** – attacking an adversary's weaknesses with unexpected or innovative means while avoiding his strengths – is as old as warfare itself. In the modern era, many forms of asymmetric attack are possible – to include the forms of warfare outlined above, terrorism, guerilla operations, and the use of WMD. Because of our dominant military position, ***we are very likely to be the focus of numerous asymmetric strategies as weaker adversaries attempt to advance their interests while avoiding a direct engagement with the US military on our terms.*** If forced into a direct conflict with the US, those same adversaries are likely to seek ways of "leveling the playing field."
- **Asynchronous warfare** involves a preselected, or delayed (timed) attack on an adversary, taking advantage of the passage of time to develop a strategic opportunity or to exploit a future vulnerability. In a preselected attack, the operation has a latent effect on the adversary. Human or technical assets are strategically placed well before – sometimes years before – the actual confrontation. In a delayed attack – often carried out as an act of reprisal months or even years later – the operation is conducted after an opponent has lowered his guard.

Other Warfare Trends

Ground Forces

Many ground forces throughout the world are being reduced due to diminished threat perceptions and other, mostly economic, imperatives. Many developing nations – who still see ground forces as the essential force component – are saddled with outdated equipment that is either non-operational or in serious disrepair. These states hope to "modernize" – within economic limits – with surplus Cold War stocks. For many, however, ***overall combat effectiveness will remain limited due to persistent shortfalls in training, maintenance, leadership, operational concepts, and morale.***

The developed states are in various stages of modernization, but ground forces are a low priority for many of these countries. In terms of doctrine, few states have either the inclination or the capability for anything other than old western or Soviet-era equipment and practices. Training and logistics are generally in tandem with modernization and doctrinal advancement. ***Most nations do little beyond battalion level training and few have any proficiency at joint or combined arms operations.***

To balance the demands of responding rapidly to local or regional contingencies, while maintaining the capacity to mobilize for large scale war, ***many states are adopting a two-tiered readiness structure*** consisting of a few "ready" units (smaller, more mobile, better-equipped, trained, and manned), and a larger component of "not-ready" units (usually large units, with older equipment, manned at pre-mobilization or cadre status).

Those nations with the motivation and resources to upgrade their armies will generally be able to acquire improved tanks and fighting vehicles (primarily with western fire controls, night-vision devices, add-on passive or reactive armor, threat warning and obscurant systems, and, in the more distant future, active protective systems).

Naval Forces

The foreign naval threat in the next 20 years will consist of both larger numbers of older weapons systems and a smaller yet more diverse set of modern systems. Naval warfare will become more complex, with a wide variety of potential adversaries, situations, and forces capable of confronting the US during the execution of overseas presence and warfighting missions. This is especially true in littoral regions.

- The majority of the world's fleets will consist of ships not larger than destroyers and frigates, although a select few will retain or build aircraft carriers. New ship designs will emphasize improved multi-mission capability, endurance, reduced signatures, and increased system automation and firepower.
- The submarine threat will remain significant especially in coastal or contiguous waters where many smaller navies are confined to operate. ***Russian submarines, sensors, and weapons will continue to pose the pacing undersea technology challenge for the US.***
- ***Mine warfare threats will increase*** as maritime nations continue to see mines as cheap and effective weapons against ships and submarines, and more sophisticated mine systems become widely available.
- ***Anti-ship cruise missiles will be more widely proliferated,*** posing an increasing threat to naval and civilian maritime traffic.

Air and Air Defense Forces

Global combat aircraft inventories will decline over the next two decades, but residual aircraft will be

more technologically capable and lethal (extended ranges, multirole mission capability, and multiple engagement capability). The proliferation of advanced air-to-air missiles, precision-guided munitions, land attack cruise missiles, and "smart weapons" will increase the defensive and strike capabilities of air forces globally. Most countries will focus on modified and upgraded versions of proven airframes.

Overall, however, ***resource shortfalls, qualitative training deficiencies, and limited C3I, electronic warfare, logistics, and maintenance capabilities will limit the combat effectiveness of most air forces.***

Cognizant of the advantages afforded those nations possessing superior air warfare capabilities, and unwilling or unable to bear the high cost of advanced air superiority aircraft, ***many nations will place a high premium on improving their ground-based air defenses. Across-the-board upgrades in missiles and sensor capabilities – improved seekers, propulsion, guidance, and control – will occur. However, most states will lack the resources and technological sophistication necessary to acquire and field integrated air defense networks and systems.*** As a result, the operational effectiveness of these advanced weapons systems will remain limited, albeit challenging.

Space Warfare

While the US will remain the world's dominant space power, over the next two decades, increased foreign military and civilian space capabilities will erode the relative US advantage in satellite reconnaissance, communications, mapping, and navigation. The space systems of 2018 will be much more capable and more widely used than those of today. By that time, nearly 40 countries will have their own satellites (compared with about two dozen today), and more than a dozen commercial consortia will provide satellite services (imagery, geo-spatial data, communications) to the rest of the world. As part of this general commercialization of space, ***the number of countries capable of using space-based platforms or capabilities for military purposes will increase.*** We must also consider the increased potential for future adversaries to employ a wide variety of means to disrupt, degrade, or defeat portions of the US space support system.

Conclusion

As the protracted transition from the Cold War order to an uncertain future continues ***the United States will remain the world's dominant power.*** Beyond the enduring challenge posed by the strategic nuclear forces of Russia and China, ***the global threats facing the United States are diminished in magnitude when compared to the Cold War era.*** This relative "strategic hiatus" provides the opportunity for a breathing space in which the US gains time at reduced risk.

However, the world remains a very dangerous and complex place and there is no relief from the high tempo of operational activity short of war as US forces respond to a broad spectrum of challenges resulting from the general global turmoil. A wide variety of operations – peacekeeping, peace enforcement, counternarcotics, humanitarian emergencies, non-combatant evacuations, military assistance, and limited conflict when necessary – will continue to place our military personnel at risk. Operational environments in these contingencies range from relatively benign, to non-permissive, to hostile.

We are trying to maintain military superiority and to use military capability in positive and constructive ways in an environment in which espionage and the selective public disclosure of US classified information is commonplace. ***Unless we make progress in preventing espionage and stopping the unauthorized public disclosure of classified information, we should anticipate a steady erosion of confidence in our abilities and the real loss of advantage to our adversaries.***

A number of nations, especially rogue states like North Korea and Iraq, retain capabilities to directly threaten US interests. This condition demands constant US vigilance and the retention of demonstrable warfighting capabilities.

Various transnational threats – weapons smuggling, terrorism, drug trafficking and other forms of criminal activity – continue to plague the international environment and pose the most direct daily threat to US citizens, forces, property, and interests. Some aspects of these threats have national security implications and will continue to involve US military forces and capabilities in the future.

The changing nature of future warfare – including the application of new technologies and innovative doctrinal concepts, and the development of new forms of asymmetric and asynchronous warfare – presents a constant challenge for US strategy, doctrine, force structure, and materiel development.

The continuing proliferation of weapons of mass destruction, missiles, and related technologies, will result in a broadly increasing threat to stability and a specific direct threat to US military forces.

The global presence of the United States – our tremendous power, influence, and willingness to remain engaged – is the key factor affecting the future shape of the international security environment. We in the Defense Intelligence Community remain committed to providing the best possible military intelligence support to US and allied leaders engaged in planning for and acting in any contingency or crisis.

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