GLOBAL THREATS AND CHALLENGES

Statement for the Senate Select Committee on Intelligence, February 5, 1997
by Lieutenant General Patrick M. Hughes, USA, Director, Defense Intelligence Agency

Mr. Chairman, I am pleased to have the opportunity to provide a Defense Intelligence Agency perspective on the threats and challenges facing the United States and its interests, now and well into the next century. It is important to note at the outset that this testimony directly reflects the baseline threat assessment DIA has provided to the Joint Staff and the Office of the Secretary of Defense in support of the ongoing Quadrennial Defense Review. This review of the global security environment assumes that the United States remains a global power politically, economically and militarily, and that our country continues its active engagement in world affairs. If either of those assumptions is wrong, then the threat picture depicted here would change significantly. Finally, this analysis presents a global overview of the future in somewhat linear form — that is, we are providing our best estimate, from today’s perspective, under the working premise that current trends and conditions will continue to evolve along discernible lines. We recognize, however, that the future is nonlinear and that what we present here is likely to change. To address that concern, DIA analysts will continue to examine and study alternatives and excursions to each specific condition, event and circumstance.

The New Order . . . Transition, Turmoil and Uncertainty

There is nothing more difficult to take in hand, more perilous to conduct or more uncertain in its success, than to take the lead in the introduction of a new order of things.

Machiavelli

The world is in the midst of an extended post-Cold War transition that will last at least another decade. Many factors and forces are at work during this transition, and some aspects of it have so far been very positive. The community of democratic states is expanding, the world economy has largely recovered from the decline of the late '80's and early '90's, and most experts expect steady, positive global economic growth — on the order of four percent per year — well beyond the next decade. From a national security standpoint, the threats facing the United States have diminished in order of magnitude, and we are unlikely to face a global military challenger on the scale of the former Soviet Union for at least the next two decades. The world is spending in real terms some 30 to 40 percent less on defense than it did during the height of the Cold War, the “rogue” states are relatively isolated, and at least one — North Korea — is probably terminal.
But despite these and other positive developments, this era of transition remains complex and dangerous. In much of the world, there still exists a potentially explosive mix of social, demographic, economic and political conditions which run counter to the global trend toward democracy and economic reform. I will highlight the most significant of these.

Demographic Trends

Global population will increase some 20 percent between now and 2010, with 95 percent of that growth occurring in the developing areas that can least afford it. Many of these states will experience the “youth bulge phenomena” (a relatively high percentage of the population between 18 and 25 years of age) which, historically, has been a key factor in instability. At the same time, we are witnessing virtually unchecked urbanization in many developing regions as millions of the world’s poorest people move from rural to urban areas each year. These factors are straining the leadership, infrastructure, and resources of many developing states and regions. Some governments — mostly in the developing world — will be unable to cope with these challenges.

Growing Humanitarian Needs

A combination of several factors — the great disparity in north-south distribution of wealth, rising nationalism, the violent fragmentation of existing states due to ethnic, religious, political, and economic strife, and the steady occurrence of natural disasters — has led to dramatic increases in both the number and scale of humanitarian operations. Compared to the 1980’s, such crises are four times more frequent, last longer and are more dangerous to respond to because they more frequently involve large numbers of internally displaced persons located in remote, conflict-ridden regions. One measurable consequence of these trends is the significant increase in the number, size, cost and intensity of UN peace operations over the past decade. While there is some evidence that these trends have leveled off over the past few years, the plateau is a high one, and we expect no significant decrease over the next decade or so.

Resource Scarcity

While most experts predict global resource availability will keep pace with increased consumption, local and regional shortages will occur more frequently, particularly in areas experiencing rapid population increases and/or expanded economic growth. These shortages will retard economic, social and environmental progress, and will frequently be seen by affected peoples and states as a distribution contest in which the needs of others have been given priority for political, economic or social reasons. Such perceptions will increase the potential for violence — moves by individual nations to control fresh water supplies already contribute to tensions among nations and future conflicts over water are increasingly likely. On a global scale, the worldwide demand for Persian Gulf oil will remain high and, for regions such as Asia, dependency on Gulf oil could reach 90 percent of total oil imports by the end of the next decade. This dependence places a very high premium on ensuring stability in this troubled region.

Weapons of Mass Destruction and Missile Proliferation

Proliferation — particularly with regard to nuclear, chemical and biological weapons and missile delivery systems — constitutes a direct threat to U.S. interests worldwide. Many states view the
acquisition of these capabilities as vital to countering U.S. conventional warfighting superiority and to providing an unparalleled measure of power, respect and deterrent value within a regional context. Currently some two dozen states remain actively engaged in the pursuit of weapons of mass destruction (WMD); we do not expect that number to grow substantially. While nuclear technology is difficult and expensive to obtain, counterproliferation efforts are not perfect, and one or more of the determined rogue states are likely to develop or acquire nuclear weapons over the next decade. One complicating factor is the security of weapons-usable materiel within the former Soviet Union. Although the Russians are working in good faith to protect such materiel and related capabilities, the potential for loss of control will remain with us into the foreseeable future, in part because of the unstable conditions in Russia.

Chemical and biological agents are likely to be more widely proliferated. Chemical weapons are easiest to develop, deploy and hide, and the technology and materials to produce relatively sophisticated weapons are readily available, often as dual-use items in the commercial world. Similarly, biological weapons technology is also widely available but handling and weaponizing is more difficult.

In my view, ballistic and cruise missile proliferation presents one of the greatest emerging threats to U.S. regional interests and deployed forces. The types of missiles most likely to be proliferated in significant numbers — SCUD upgrades and unmanned aerial vehicle (UAV)-like cruise missile variants — and the nations which field them will generally not have the technical sophistication or targeting support which is available to more advanced military powers. But these missiles will have sufficient range, accuracy and payloads to deliver WMD or conventional warheads interregionally to the vicinity of an intended target. As such, they pose a direct threat to fixed targets such as large personnel and equipment concentrations, airfields, seaports, ships at pier or anchor, command control and communication C³ nodes, logistics/transportation centers, and amphibious assault zones. Possession of such weapons by adversaries complicates U.S. and allied planning, decisionmaking and operations, and is a source of local and regional instability.

Regarding longer-range missiles, fewer than five nations now possess operational theater ballistic missiles with ranges greater than 500 km — that number could grow to more than 10 by 2010. In terms of intercontinental missiles, it is unlikely that any state, other than the declared nuclear powers, will develop or otherwise acquire in the next 15 years a ballistic missile that could directly target the United States. However, in this key area, I believe we could encounter some form of technical surprise, where a rogue state could acquire the capability to build and use a missile which could threaten our vital interests. We must carefully monitor this potential threat.

The Rejection of Western Culture

The abrupt end of the Cold War, the rapid spread of western values, ideals and institutions, and the dramatic personal, societal, and global changes underway as a result of the global village phenomenon and broad technology proliferation, are changing fundamental concepts, beliefs and allegiances in many areas of the world. Those peoples, groups and governments who are unable to cope with or unwilling to embrace these changes frequently resent the dominant role played by the United States in the international security environment, and attempt to undermine United States and western influence and interests. Two aspects of this condition are particularly noteworthy. First, although 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. Second, the perception of western political, economic and especially military "dominance" means that many of our enemies will
choose asymmetric means to attack our interests — that is, pursuing courses of action that attempt to take advantage of their perceived strengths while exploiting our perceived weaknesses. At the "strategic" level, this probably means seeking to avoid direct military confrontation with U.S. forces; at the operational and tactical levels it means seeking ways of "leveling the playing field" if forced to engage the U.S. military.

**Terrorism**

Terrorism will remain a major transnational problem, driven by continued ethnic, religious, nationalist, separatist, political, and economic motivations. One worrying trend is the rise of terrorists groups that are more multinational in scale of operation and less responsive to domestic or external influences. Middle East-based terrorism, especially that supported by Iran and private sources in several other countries, remains the primary terrorist threat to U.S. interests. While advanced and exotic weapons are increasingly available, their employment is likely to remain minimal as terrorist groups concentrate on peripheral technologies — communications, more sophisticated conventional weapons, and weapon disguise techniques — that improve the prospects for successful execution of attacks. If weapons of mass destruction are used, chemical or biological agents would likely be the choice, since they are easier to build, hide, and transport. The Japanese experience with the Aum Shin-Rykyo sect is a harbinger of what is possible in the future.

**The Drug Trade**

The international drug trade is becoming more complex as new areas of drug cultivation and transit continue to emerge and international criminal syndicates take advantage of rapid advancements in global communications, transportation and finance to mask their illicit operations. Drug-related crime and corruption will remain endemic throughout the major drug source and transit countries. Nondemocratic states, or those with weak democratic traditions, are particularly susceptible to criminal penetration of police, security, legislative, judicial, banking and media organizations, and to insurgency which is supported by narco-trafficking. Drug money will retain its influence in populations with little or no opportunity for equivalent, legitimate sources of income and employment. This situation produces a newly monied element in drug-producing and transit countries, and engenders serious, often violent clashes between and among these elements, established social structures and national governments. These drug trafficking constituencies also contribute to tensions between their countries and other governments, notably consumer nations. One especially troublesome trend is the rise of urban drug production using nonorganic chemicals. These production facilities are relatively easy to conceal, their product is easy to transport and distribute and, since the distance between producer and consumer is minimal, the supply is difficult to interdict.

**Critical Uncertainties**

Beyond the obvious challenges outlined above, there is significant uncertainty surrounding today’s international security environment. The end of the Cold War had three key strategic consequences — the collapse of international communism, the demise of the Soviet Union, and a hiatus in bipolar competition. These consequences, in turn, are affecting power and security relationships throughout the world. One result is the relative dispersal of power away from the states of the former Soviet Union toward regional power centers. Another is the potential struggle within regions as the dominant states vie for position within the emerging power hierarchy. A third is that in many regions the “lid has come
off” long-simmering ethnic, religious, territorial and economic disputes. These conditions are taxing the capabilities of what are still largely Cold War-era international security concepts, institutions and structures. The process of adapting the old security structures and developing new ones is often complex and confrontational. This will be particularly true within the remnant states of the former Soviet Union.

Beyond 2010, as the world becomes more multipolar, there is the potential for increased competition among and between the major powers for access to or control of resources, markets and technology. The nature and extent of that competition will be a key determinant of international stability. One potential consequence of that competition would be the formation of strategic alliances between two or more major powers that directly challenge U.S. security interests. Overall, we expect future alliances and coalitions will be based more on specific issues than dogma or enduring ideology, and will therefore be more flexible in their membership and less durable than during the Cold War.

In addition to the broad uncertainty outlined above, the future of Russia and China — two major powers undergoing great change — plus other issues such as the dynamics on the Korean peninsula, the prospects for lasting peace or continuing conflict in the Middle East, genocide, ethnic, religious and tribal conflict in Africa, the global impact of the proliferation of military technology, and an array of upcoming leadership changes, are but a few of the more specific uncertain circumstances we face.

Characterizing the Threat

Gentlemen, I notice that there are always three courses (of action) open to an enemy and that he usually takes the fourth.

von Moltke the Elder

This backdrop of change, turmoil and uncertainty presents a complex strategic planning environment in which new challenges and opportunities arise on a daily basis. The critical task for military intelligence is to discern from these general conditions a more precise characterization of emerging threats — that is, the unique combination of location and circumstance, U.S. interests and a potential enemy’s capabilities, intentions and will.

One key to understanding the strategic level of this dynamic is to recognize those conditions that would threaten our vital interests. A generalized list would include the rise of an ideology inimical to U.S. ideals, concepts and values; denial of access to key resources and markets; regional or local instability in areas of U.S. vital interest; and the emergence of foreign military capabilities that undermine our general deterrent and warfighting superiority.

Another important factor in identifying emerging threats — and also critical to deconflicting disputes or to crisis and conflict management — is an understanding of the reasons why peoples, leaders and states engage in warfare. Generally, these 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.

A third imperative for discerning emerging threats is to understand the components of enemy capability, intent, and will. In most cases (barring exceptional technology breakthroughs or innovative doctrinal advancements) the intelligence community has enough information to measure and understand the capabilities of our adversaries. Intent, however, is another matter. Without indwelling or invasive sources, we cannot adequately anticipate or understand true intent. Will — being a function of
dynamic conditions as well as the emotions and perceptions of leaders — is constantly in flux and very
difficult to know with certainty.

Using this analytic framework, and our assessment of the global security environment, we can
make a number of judgments about current and future threats to U.S. interests. These judgments fall
into four broad categories: the emergence of a new threat paradigm; a reaffirmation — albeit with
some modifications — of the traditional conflict spectrum; an analysis of key regional threats; and a
look at future warfare trends.

The New Threat Paradigm

First, the threat paradigm has shifted from the “known” enemies of the Cold War to a more
generalized, global set of potential competitors, 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. These may be classified as follows:

♦ Partners and allies, who generally share U.S. values and interests and may be military allies. Often,
however, these states produce weapons, technologies and other products that, once proliferated,
enhance the capabilities of our enemies. In this regard, our partners and allies often present the
“pacing technology threats” for U.S. weapons and technology development.

♦ Noncompliant competitors who generally do not conform to our values and interests, but are not
military adversaries. While they are frequently in opposition to U.S. political, economic and
strategic goals and may undertake actions which compromise or endanger our interests, they do not
generally engage in violence.

♦ Renegade adversaries, who engage in unacceptable behavior frequently involving military force
and violence, are potential enemies of the United States, and against whom we must consider the
active use of military force.

♦ 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
military force, often in threatening and sometimes lethal conditions.

The key conclusion from this new threat paradigm is that the nature of potential and actual conflict
and the dimensions of it will vary broadly from place to place and circumstance to circumstance,
bounded only by the dimensions of the conflict spectrum and the wide variety of conditions that are
physically possible. Thus it is vital that we understand conditions and circumstances extant.

The Conflict Spectrum

From the foregoing analysis, it seems apparent that specific situations for U.S. force employment
can still arise anywhere along the traditional spectrum of potential contingencies, from conflict short of
war, to conventional (both local and regional) war, to global nuclear war. However, the probability of
large-scale regional war or global nuclear war is much lower today than during the Cold War. Indeed,
it is unlikely to occur. It is most probable that U.S. involvement will occur along the lower end of the
conflict spectrum. Chemical, biological and information warfare transcend the entire conflict spectrum
and can occur at any time. International terrorism will remain a transnational problem but will mainly
be a factor at the lower end of the conflict spectrum. It is important to note that we see an increased
probability that chemical (and perhaps biological) weapons will be employed, albeit generally within
the context of very limited use and very restricted kinds of conflict.

Simultaneity

We must also include in our assessment the concept of simultaneity — the possibility (probability)
that several separate events or conditions will occur simultaneously, or concurrently, over time. Thus,
we must anticipate a threat environment in which more than one substantial threat condition will
require a direct military response by the United States.

Regional Threats

Although no state will have the combined political, economic and military power to present a peer
challenge to the United States over the next two decades, a number of regional powers, that do not
necessarily share the U.S. vision of the future, will retain significant capabilities to threaten our interests.

North Korea

North Korea’s capability to conduct large-scale combat operations continues to deteriorate as
worsening internal economic conditions undermine training, readiness and sustainment. Nevertheless,
Pyongyang retains the potential to inflict enormous destruction on South Korea, and a Korean war
scenario remains our primary near-term military concern. With the North’s forward positioning of strike
forces — artillery, missiles, rocket launchers and aircraft — war on the peninsula could erupt with little
warning. Given the time and distance factors involved, and the fact that large civilian population and
economic centers would be at risk from the outset of conflict, the situation is particularly troublesome.

For the future, we continue to assess that Pyongyang sees its best chance for survival in continued
interaction with the West. The key will be how North Korea’s uncertain and unstable leadership
handles the increasing internal pressures resulting from long-term economic and social deterioration.
Given these conditions, and the fact that our access to the North is limited, we must remain vigilant for
both “implosion” and “explosion” possibilities.

China

The key long-term security issue in Asia is the growth of Chinese power — more specifically, how
China itself and the other regional powers adapt to and accommodate that development. In our
judgment, China will continue to give priority to economic progress and modernization through at least
the next decade as it moves forward in the transition to a new era of political leadership and regional
influence. The result is likely to be continued high rates of economic growth (above five percent per
year) and China’s probable emergence, over the next 10 to 20 years, as the preeminent Asian-Pacific
regional power (excluding the United States). Should China become more assertive and aggressive in
that role, the prospects for direct confrontation with other regional powers will increase accordingly. In
a worst-case scenario, China would view the United States as a direct military threat.

The next several years should provide some important clues in this regard. China’s actions with
respect to key Asian security issues — the reversion of Hong Kong later this year, Beijing’s role in
managing developments on the Korean peninsula, and its posture regarding Taiwan — will be key
indicators of China’s long-term security outlook.
Over the near term, we continue to monitor China’s military development. People’s Liberation Army (PLA) capabilities remain constrained at present — despite steady levels of defense spending — due to weaknesses in force projection, logistics, training, and command and control. But the military leadership is intent on addressing those shortfalls and is developing a more robust capability. To accomplish this, China continues to accord the highest priority — beyond strategic force enhancements — to acquiring advanced air, air defense and sea denial capabilities, through both indigenous production and foreign purchases. In our judgment it will take at least a decade before China can acquire, absorb and integrate these new capabilities; beyond that time frame, however, China will have real potential for significant increases in military effectiveness.

In part to fund modernization, Beijing is cutting force structure, particularly within the Army, but will retain forces that will be large and capable by regional and global standards. Following the doctrinal charge to “prepare for local war under high technology conditions,” China’s military is also emphasizing key force multipliers (e.g., electronic countermeasures, low observable technologies, and advanced surface-to-air-missiles, or SAMs), information warfare capabilities, and unconventional countermeasures and tactics.

Overall, China is one of the few powers with the potential — political, economic and military — to emerge as a large-scale regional threat to U.S. interests within the next 10 to 20 years. Given Asia’s growing global economic importance, its unsettled security picture, and the fact that four of the world’s major powers — China, Russia, Japan and the United States — all have interests and a presence there, the continued monitoring of Asia’s security environment — and notably its biggest country, China — will remain a primary task for the U.S. defense intelligence community.

Russia

As China is the key to long-term stability in Asia, Russia is the key to stability in Europe. And like China, Russia also has the potential to emerge as a large-scale regional threat to U.S. interests within the next two decades. Accordingly, Russia’s political and military future remains one of our key security concerns. For the near-to-midterm outlook, we expect slow progress along the current reform path as Moscow adapts and evolves in response to the tremendous political, economic, social and security challenges confronting it. We expect continued political turmoil, periodic crisis and weaknesses in democratic values and institutions, as well as continued crime and corruption. Russia is likely to remain focused internally or on the “near abroad” unless Moscow perceives vital interests are at stake. Over the longer term, Russia will eventually stabilize and recover, and exhibit more nationalistic tendencies, motivated by a desire to reestablish its great power status.

In the meantime, Russia’s strategic nuclear forces are the backbone of Moscow’s military might, preserving Russia’s perception of great power status and protecting its vital security interests. Russian general purpose forces retain sufficient capabilities to defend the country and conduct limited operations in the “near abroad,” but are staggering under the cumulative impact of long-term leadership problems and serious funding shortfalls that have undermined manning, training, readiness, morale, sustainment and modernization. While Russia retains a relatively robust military research and development program — with advanced technology systems under development in many combat areas — funding shortfalls, a depressed defense industry and other domestic spending imperatives mean that few of these systems are likely to reach full-scale production within the next decade.

For the future, real progress at military reform will not occur until the economy improves sufficiently, domestic spending imperatives are satisfied, and the political and military leadership agree
on the desired size, nature and characteristics of the future force. In our judgment, it will take at least a
decade before these circumstances occur. Beyond that time frame, however, the potential for Russia to
reemerge as a large and capable regional military rival of the United States increases significantly.

Bosnia

International peacekeeping forces in Bosnia continue to operate in a complex 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 (SFOR) directives. We do not foresee the outbreak of widespread fighting between
the Bosnian factions over the next 18 months so long as SFOR remains a credible military force.
However, if civil implementation of Dayton lags, the prospects for renewed fighting would increase
significantly following SFOR’s withdrawal due to the unrealized aims of the Bosnian factions. The
threat to U.S. and allied forces in SFOR from organized military forces will remain low. Nonetheless,
SFOR will continue 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.

Deep mutual mistrust among Bosnia’s ethnic factions and the legacy of war have created an
impetus toward de facto partition of Bosnia. Pervasive international engagement — both political and
economic — will be necessary to prevent a permanent division of Bosnia along ethnic lines.

Iraq

Iraq’s military continues to suffer from the losses inflicted during the Persian Gulf War and more
than six years of UN-imposed sanctions. It has significant weaknesses in leadership, morale, readiness,
logistics and training that limit its effectiveness in combat against western forces. Nevertheless,
Saddam has succeeded in restoring some elements of the military — which remains significant by
regional standards — and retains the capability to overwhelm Kuwait if opposed only by regional
states. Moreover, Saddam continues limited efforts to pursue WMD and missile development
programs and to conceal those activities from UN inspection.

As long as Saddam is in power, Baghdad will retain the goal of dominating Kuwait; therefore,
Baghdad will continue to pursue improvement of its military power and capabilities. Iraq will remain a
threat to U.S. interests in the Gulf and to those elements of the Iraqi population that oppose Saddam’s
rule. His policies demand our continued enforcement of UN sanctions, the forward deployment of U.S.
military power to deter or defend against Iraqi aggression, and continued intelligence monitoring of
Iraq’s military posture. While I cannot predict the nature of a post-Saddam government with certainty,
it is very likely that Iraq will continue to maintain a strong military capability in order to ensure its own
security and survival. The key question for the future is — will Iraq continue its belligerence toward
the United States and continue to be aggressive against Kuwait? The short term answer is yes.

Iran

Iran’s primary long-range goal is to establish itself as the pan-Islamic leader throughout the Middle
East region and beyond. In pursuit of that goal it requires military forces that can deter or defeat Iraq,
imidate its Gulf Arab neighbors, and limit the regional influence of the West — particularly the
United States. As long as Iraqi forces are constrained by UN sanctions, Iran can afford to prioritize the
development of specific elements of its military posture. Iran recognizes that it cannot hope to match
U.S. military power directly and therefore continues to develop capabilities to challenge the United States indirectly through subversion and terrorism directed against U.S. 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 United States and intimidate its neighbors. These efforts reflect a clear intent to build an offensive capability well beyond Iran’s defensive needs.

Tehran’s military buildup has been slowed recently by serious economic problems and international supplier restraint (with the notable exception of Russia, China and North Korea). Iran’s demographic trends — a rapidly growing and youthful population — do not bode well for a significant increase in military spending. As a result, Iran’s military progress will be slow but steady, and many of its current conventional force shortcomings — particularly command and control, maintenance, training and equipment — will linger as Tehran pursues the unconventional, WMD and maritime interdiction capabilities outlined above. Over time, however, U.S. interests will be challenged by a hegemonistic Iran seeking to dominate the region.

**South Asia**

The tense rivalry between India and Pakistan is our most important security concern on the subcontinent. While neither side wants war, both see their security relationship in zero-sum terms. Moreover, both possess short-range ballistic missiles, can quickly assemble nuclear weapons, and maintain large forces in close proximity across a tense line of control. With frequent low-level clashes, the potential for miscalculation and rapid escalation is constant.

The South Asian drug trade presents another serious regional concern, with many production and trafficking areas outside effective government control. Afghanistan and Pakistan will remain significant opium producers, with Pakistan and Iran also serving as key drug transit nodes. Extensive governmental corruption, other economic and political imperatives, and a general unwillingness to focus the energy and resources required will continue to limit the effectiveness of regional counterdrug efforts.

**Latin America**

The scourge of narco-trafficking, related money laundering, weapons and contraband smuggling, and insurgency all combine to provide threatening conditions for the countries and governments of the region and for U.S. interests. The potential for more serious insurgency and more widespread terrorism and crime in several areas of Central and South America and the Caribbean continues to demand our vigilance.

**Future Warfare Trends**

Key trends in military technology have the potential to dramatically alter the nature of warfare and the characteristics of the future threat. The impact of applied automation and computers, electromagnetic warfare, brilliant sensors and the other technologies listed below signal the rise of a military-techno culture in which time, space, speed and other fundamental conditions are radically changed.

- nuclearization and the proliferation of WMD capabilities
- precision munitions
- electrodynamic weapons
- "conventional" weapons of mass destruction
- nonlethal weapons
- information technology and cybernetic warfare
- camouflage, cover, concealment, denial and deception (C²D²)
- techno-terrorism
- nano-technologies

For the most part, however, the integrated application of these technologies and concepts has been limited to the advanced western militaries — particularly the United States. One key reason is that the elimination of Cold War threat perspectives and the corresponding decline in global defense spending sapped the motivation, resources and capabilities of many nations 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 are likely to see additional, albeit still limited, emphasis. Perhaps our greatest challenge is for a rogue nation or subnational group to acquire some key technology which might lead to some form of strategic technical surprise.

**Ground Warfare**

Over the next decade, ground forces will remain the essential means of armed combat in many regions of the world and will be the critical force element in the conduct of military operations of all kinds in urban environs. Key trends include the widespread proliferation of the best current-generation surplus Cold War equipment; the adoption of two-tiered force structures consisting of small, more mobile, ready components and larger, less-ready cadre units; and an increase in the number of urban combat deployments. For many nations, however, overall combat effectiveness will remain limited due to persistent shortfalls in training, maintenance, leadership, operational concepts and morale.

**Naval Warfare**

Foreign naval threats over the next decade will likely become more diverse. Key trends include new ship designs that emphasize improved multimission capability, endurance, reduced signatures and increased firepower; advances in submarine quieting, propulsion, weapons and detection capabilities; an expansion of mine warfare capabilities; and the continued proliferation and development of anti-ship cruise missiles.

**Air and Air Defense Warfare**

Worldwide aircraft inventories will likely shrink over the next decade as older aircraft are removed from service. Air warfare trends include the back-fitting of advanced weapons, sensing and avionics packages on third- and fourth-generation aircraft; the proliferation of advanced air-to-air missiles, precision guided munitions, land-attack cruise missiles and "smart" weapons; the widespread use of UAVs; and the development and fielding of more multirole hybrid aircraft.

The air defense threat will become more sophisticated as late generation SAM systems are proliferated widely and systems integration enhances overall capabilities. Key trends include integrated C² systems that are better at sharing data, predictive analysis, and speeding up sensor-to-shooter links;
integrated weapon platforms that combine missiles, guns, and target detection and tracking radars; and more numerous and sophisticated man-portable air defense (MANPAD) systems.

Space Warfare Trends

Over the next decade, increased foreign military space capabilities will erode the relative advantage the United States enjoys with regard to satellite reconnaissance, communications and navigation. The number of countries capable of using space-based platforms for military purposes will increase, as will the potential for future adversaries to disrupt, degrade or defeat portions of the U.S. space support system. However, the United States will remain the dominant space power.

Information Warfare

Foreign states are increasingly cognizant of the link between automation and warfighting effectiveness and are developing a number of offensive and defensive information warfare capabilities. Information warfare will grow in importance and incidence as we continue to move into the information-technology age. Current information on vulnerabilities and foreign intelligence initiatives in general point to the following threats:

- trusted insiders who destroy the system from within;
- sabotaging equipment during transport or storage;
- network penetration and compromise;
- electronic and/or physical attack;
- empowered autonomous agents (cybernetic attack over time).

Conclusion

The protracted transition from the Cold War order to an uncertain future continues with both positive and negative consequences. On one hand, for at least the next decade, the threats facing the United States will be of a decreased order of magnitude and we will not likely see a global "peer competitor" within 20 years. On the other hand, the world remains a very dangerous and complex place and there is every reason to expect U.S. military requirements at about the same level of the past several years.

- The explosive mix of social, demographic and economic conditions — extant and through the foreseeable future — will mean a continued high demand for peace and humanitarian operations. Consequently, there is likely to be a continuing requirement for U.S. forces to engage in these demanding activities.
- Several key regional states — particularly North Korea and Iraq — retain the capability to threaten U.S. interests with conventional offensives. This condition demands constant U.S. vigilance and the retention of demonstrable warfighting capabilities.
- A number of transnational threats — terrorism, weapons proliferation, drug trafficking — continue to plague the international environment and threaten U.S. citizens, forces, property and interests.
- Russia and China retain strategic nuclear forces capable of threatening the U.S. homeland. Moreover, these pivotal states are both undergoing what are likely to be protracted, fundamental
changes with uncertain outcomes and consequences. Both have the potential to emerge as large-scale regional threats to U.S. interests beyond the next decade.

- The changing nature of future warfare — the application of new technologies and innovative doctrinal concepts to “conventional” military operations, and the development of new forms of asymmetric warfare — poses a constant challenge to U.S. forces.

Against this backdrop of change, turmoil and uncertainty, the U.S. military provides a much-needed measure of consistency. Our national determination to remain actively engaged in the international arena, enlarging the community of market democracies while deterring and containing a range of threats to our nation, allies and interests, is the single most important factor shaping an uncertain future. We in Defense Intelligence remain committed to providing the best possible military intelligence support for U.S. and allied military forces and decision makers engaged in that effort.

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