

# **Meeting the Challenge to US National Security**

Testimony presented to the  
**Commission on the National Guard and  
Reserves**

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## **EXECUTIVE SUMMARY**

### *Three Enduring Challenges*

Recent events have reduced much of the uncertainty under which defense planning occurred in the decade between the Soviet Union's collapse and the radical Islamist attacks on New York and Washington. The ongoing war against radical Islamists and continued military operations in Afghanistan and Iraq presents America with an immediate and likely enduring challenge to its security. Second, since 1998, the "nuclearization" of Asia has proceeded apace. Both India and Pakistan have detonated nuclear weapons and built nuclear arsenals. North Korea has declared its possession of nuclear weapons, and Iran has accelerated its efforts to develop a nuclear weapons capability. Finally, China's continued rise as a great power has yet to be matched by evidence that Beijing will seek to resolve its outstanding strategic objectives through peaceful means. These three enduring security challenges are likely to dominate US defense planning for the next decade or two, and perhaps longer.

The three enduring challenges stated above are captured in Defense Department planning documents for the 2005 QDR, which place them within the following context:

- *Catastrophic Challenges* to US security, with primary emphasis given to attacks on the US homeland with WMD, especially attacks by nonstate actors.
- *Irregular Challenges* to US security, such as those posed by terrorist groups and insurgent movements. In the near term, the threat emanates from radical Islamist groups, and from the Taliban and Ba'athist insurgent movements in Afghanistan and Iraq, respectively.
- *Disruptive Challenges* to US security, which involve dramatic shifts in the character of conflict from that which exists today. The challenge is to hedge against an uncertain future in an environment of dynamic change. Certain hedges, for example, might focus on how the US military would need to adapt if one of the fundamental assumptions concerning the character of key military competitions proved wrong, or on how to meet a novel or asymmetric challenge such as those posed by enemies fielding anti-access/area-denial forces—what, in China's case, might be termed "Assassin's Mace" capabilities.
- *Traditional Challenges* to US security that range from the familiar threats posed by combined arms mechanized air-land forces that dominated warfare for much of the 20<sup>th</sup> century beginning with World War II, and those of nuclear-armed states.

To make informed decisions as to the size and shape of the US military, a set of representative contingencies must be derived from these challenges.

### *The Program-Budget Disconnect*

Given that the challenges confronting the United States are substantially greater now than during the 1990s, it is not surprising that the defense budget has increased by roughly 25 percent in real terms in recent years. Yet even this figure has not proven sufficient to cover the cost involved in waging the ongoing wars in Afghanistan and Iraq, the broader war against radical Islam, and transforming the military to deal with contingencies.

The Defense Department will likely have to exploit a range of options to redress the imbalance that exists between what will be needed for the defense posture versus those resources currently programmed to support it. The “rich man’s” approach of simply increasing the Pentagon budget’s top line is neither likely, nor desirable, although some increases may be warranted. It is not desirable because it discourages efforts to pursue a “thinking man’s” approach that reorients the defense posture on the new security challenges of today and those that may emerge over the next 15-20 years. Greater efficiencies in defense management should be pursued vigorously. The force posture must be adapted to minimize risk. The US alliance portfolio and associated commitments should be revised: too much of the effort in this area is based on tradition rather than on hard-headed strategic assessment. Finally, force transformation should be pursued aggressively, out of opportunity as well as need. It offers perhaps the best chance to get more value for the nation’s defense dollars. Unfortunately, the recent QDR avoided making many of the difficult choices needed in order to bring the Defense program into balance with the resources planned for defense, let alone provide room for some worthy initiatives added to the defense program.

#### *Roles and Missions*

A cursory review of the challenges confronting us reveals some first-order decisions that can be advanced with little fear of being overturned by more detailed analysis:

- The Army and Marine Corps need to reorient themselves to place greater emphasis on *irregular challenges* to our security, with principal emphasis on capabilities associated with foreign military assistance, special operations, counterinsurgency, counter-terror “manhunting” and human intelligence.
- The Air Force and Navy need to increase their efforts to address existing and prospective *disruptive challenges*, to include emerging anti-access/area-denial capabilities and threats to the global commons (e.g., space, the infosphere; offshore undersea economic assets such as the global fiber optic grid and energy fields; and maritime commerce).
- It seems likely that the four Services have important roles to play in addressing direct, *catastrophic threats* to the US homeland. These include defense against ballistic and cruise missile attack, border control, defense against delivery of WMD through nontraditional means, and consequence management. However, the US Government has yet to provide clearly defined roles for the various departments and agencies involved in homeland security, or to define the division of responsibilities between the federal, state and local governments, and the private sector.

- Military operations over the past fifteen years have demonstrated that when our enemies challenge us in *traditional warfare*, as in the two Gulf Wars and in the Balkans, air power can play an increasingly important if not dominant role. While all four Services should maintain a significant residual capability for traditional warfare, the Army and Marine Corps should be able to migrate more of their capabilities into other challenge areas than either the Air Force or the Navy.

Given the challenges confronting the nation, it is thus critically important to seize this opportunity to craft a strategy and force posture to sustain the nation over what is likely to be a long and difficult period.

## **INTRODUCTION**

It is an honor to have the opportunity to provide input to the deliberations of the Commission on the National Guard and Reserves. While I claim no particular expertise on the object of the Commission's efforts, I hope the following information will help frame the context in which the Commission's important work will be conducted.

Specifically, this presentation outlines the major enduring challenges confronting our nation, examines these challenges within the framework established by the Defense Department in its recent Quadrennial Defense Review, and offers some first-order observations regarding the types of military capabilities that might be in high demand, to include prospective contributions from allies and partners.

Recent events have reduced much of the uncertainty under which defense planning occurred in the decade between the Soviet Union's collapse and the Islamist attacks on New York and Washington. We are now able to discern three enduring challenges to America's security. The first is the ongoing war against radical Islamists and the continuing military operations in Afghanistan and Iraq. Second, since 1998, the "nuclearization" of Asia has proceeded apace. Both India and Pakistan have detonated nuclear weapons and built nuclear arsenals. North Korea has declared its possession of nuclear weapons, and Iran has accelerated its efforts to develop a nuclear weapons capability. Iran seems intent on getting the bomb as soon as possible. Meanwhile, according to some reports, Saudi Arabia has an option to obtain an Arab Bomb from Pakistan should Teheran breach the nuclear threshold. Finally, and perhaps most important, China's continued rise as a great power has yet to be matched by an increase in confidence that Beijing will seek to resolve its outstanding strategic objectives through peaceful means. These three enduring security challenges are likely to dominate US defense planning for the next decade or two, and perhaps longer, much as the Soviet Union dominated planning for two generations during the Cold War.

## **THE CHALLENGES TO NATIONAL SECURITY**

These three challenges are outlined in Defense Department planning documents for the 2005 QDR, along with more familiar challenges. They are defined as:

- *Catastrophic challenges* to US security, with primary emphasis given to attacks on the US homeland with WMD, especially attacks by nonstate actors involving nuclear weapons or biological warfare agents.
- *Irregular challenges* to US security, such as those posed by terrorist groups and insurgent movements. In the near term, the threat emanates from radical Islamist groups such as al Qaeda, and by the Taliban and Ba'athist insurgent movements in Afghanistan and Iraq, respectively.

- *Traditional Challenges* to US security that range from the familiar threats posed by combined arms mechanized air-land forces that dominated warfare for much of the 20<sup>th</sup> century beginning with World War II, and those of nuclear-armed states.
- *Disruptive challenges* to US security, which involve dramatic shifts in the character of conflict from that which exists today. The challenge here is to hedge against an uncertain future in an environment of dynamic change. Certain hedges, for example, might focus on how the US military would need to adapt, or transition, itself if one of the fundamental assumptions concerning the character of key military competitions proved wrong (e.g., if highly distributed, highly networked forces could not be fielded during the planning period; if offensive information warfare operations proved dominant at the strategic level of warfare; etc.), or to meet a novel or asymmetric challenge such as those posed by enemies fielding anti-access/area-denial forces.

Each of these challenges is worth a closer look.

## **CATASTROPHIC CHALLENGES**

The catastrophic challenge to US security relates primarily to homeland defense. For much of the nation's early history, stretching from the days of the Revolutionary War until the late 19<sup>th</sup> century, the US military focused predominantly on defending the United States proper. The relative level of effort devoted to defending the homeland underwent a slow decline beginning around the Spanish-American War. This general decline lasted, with a few notable interruptions, until 9/11.

The al Qaeda attacks on New York and Washington in September 2001 are likely only a precursor of potentially catastrophic terrorist attacks on the US homeland. The proliferation of ballistic and cruise missile technology to a growing number of states, combined with the diffusion of knowledge on how to fabricate weapons of mass destruction/disruption to both states and nonstate entities, will place the US homeland at increasing risk of major attack.<sup>1</sup> The cost in human life and national treasure from an attack involving WMD could easily dwarf the 9/11 attacks. The challenge of defending against catastrophic WMD attacks is compounded by the relatively high uncertainty surrounding the national information infrastructure's vulnerability to electronic attack (i.e., "information warfare").

The United States' long, relatively open borders and extended coastline make defending against both missile (especially cruise missile) and unconventional attacks on the homeland (e.g., irregular or nonstate forces employing WMD) a challenging proposition. The homeland defense problem is further complicated by the US political system, which places high value on individual liberties, thus making it more difficult to identify groups planning covert attacks, and on a

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<sup>1</sup> As long as the United States maintains sizable military forces overseas, they too would be at risk of suffering catastrophic attacks. One can hardly imagine the destruction that could have been caused if those groups who perpetrated the attacks on the Marine barracks in Lebanon, Khobar Towers in Saudi Arabia, and the *USS Cole* in Yemen had had access to nuclear or biological weapons.

federal government structure, which may make coordinating national defenses relatively difficult.

The United States could also confront ambiguous attacks on the homeland, manifested in one of several ways. Broad-based, “no fingerprint” electronic attacks (e.g., computer viruses) could be mounted against America’s information infrastructure by another state or group. Computer systems might be “hijacked” and actively employed to inflict damage and promote disorder. The attacker might even disperse his electronic strike force to other countries before executing his attacks. An attacker might also infiltrate irregular forces carrying chemical or biological agents into the US homeland. Strategic strikes could then originate from *within* the US homeland. Tracing the true origins of such attacks could prove difficult.

Investments in homeland security increased from \$14 billion in 2000 to over \$47 billion annually in 2005. However, homeland security is not primarily a DoD mission. Little of this funding is directed toward changing the US force structure or the defense program. Nevertheless, should an attack on the US homeland succeed in creating casualties or destruction on a scale comparable to 9/11, the relative weight of US defense efforts associated with homeland defense could increase dramatically. Among the military forces that appear most likely suited for this mission are:

- Retaliatory strike forces (e.g., nuclear and information strike; counter-terror strike teams) to deter such attacks in the first place, or to inflict punishment on the attacker should deterrence fail;
- Air and missile defense units, to include combat air patrol (CAP) interceptors;
- Ground forces associated with site/facility security, infrastructure protection and disaster relief, such as local units of the National Guard, military police, civil affairs, transportation and logistics units, and similar force elements;
- Air transport units, which enable rapid deployment of disaster relief units and supplies;
- Coast Guard and Navy littoral sea control combatants to protect the nation’s coastline;
- Long-endurance, unmanned air surveillance platforms to monitor borders and areas under attack;
- Redundant, distributed sensor networks, particularly those oriented on detecting radiological signatures and bio toxins;
- Information warfare attack, defense, and infrastructure recovery teams; and
- WMD consequence management forces.

## **IRREGULAR CHALLENGES**

For much of its history, the US military has engaged in operations at the lower end of the conflict spectrum. These operations include peacekeeping, peace enforcement, stability and

counterinsurgency operations.<sup>2</sup> These operations were conducted by US forces on the western frontier during the 19<sup>th</sup> century and in various places in the 20<sup>th</sup> century, to include the Philippines, Central America, Greece, Vietnam, Haiti, Rwanda, the Balkans, and now, in a new century, in Afghanistan and Iraq.

Indeed, recent US history finds US forces conducting a remarkably high number of “regime change” operations (e.g., Panama, Haiti, the Balkans, Afghanistan and Iraq). This greatly increased the demand for forces capable of conducting stability operations until a new government can be formed and indigenous forces trained to assume responsibility for the country’s internal security. As the Balkans, Afghanistan and Iraq have shown, these operations can be protracted in nature, especially in cases where a robust insurgent movement develops. The lapse of Haiti back into its pre-intervention state also serves as a reminder of what can happen when stability operations are too brief in duration to enable badly needed reforms to take root.

This trend may well continue, whether or not the US military conducts regime change operations. This is because adversaries confronting states with overwhelming advantages in conventional capabilities (e.g., the United States) have often adopted unconventional methods of waging war to offset these advantages. Thus Israel is confronted with the Palestinian Intifada, while moderate Islamic states, parts of Europe and the United States must contend with Islamist insurgent movements.

Given the Bush Administration’s determination that the United States must be willing, if need be, to effect regime change as a preventive measure along the lines of Afghanistan and Iraq, and the clear incentives of America’s nonstate enemies to adopt irregular warfare, it seems quite likely that stability operations and counter-terror operations (typically referred to as the “Global War on Terrorism,” or GWOT) will be a staple of US military operations over the next decade or two.

Although the US military’s record in such operations is mixed, institutionally the armed forces have shied away from fielding forces structured for irregular warfare, for several reasons. First, irregular warfare operations are typically manpower intensive, while the US military has become increasingly capital intensive. The movement to an all-volunteer force in 1973, coupled with the high cost of recruiting and retaining volunteers, has made manpower-intensive solutions expensive and, thus, relatively unattractive. Military leaders also point out that, given limited resources, the American military cannot be optimized around irregular warfare operations without compromising its ability to deal effectively with other challenges to US security (e.g., traditional, catastrophic and disruptive). Operations against irregular threats also tend to be

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<sup>2</sup> The Department of Defense defines peacekeeping as the “military operations undertaken with the consent of all major parties to a dispute, designed to monitor and facilitate implementation of an agreement (ceasefire, truce, or other such agreement) and support diplomatic efforts to reach a long-term political settlement”; peace enforcement as the “application of military force, or the threat of its use, normally pursuant to international authorization, to compel compliance with resolutions or sanctions designed to maintain or restore peace and order”; and counterinsurgency as “those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency.” See *DOD Dictionary of Military Terms*, available at <http://www.dtic.mil/doctrine/jel/doddict/>.

protracted in nature, especially when compared to recent conventional wars (e.g., the Korean War, Suez War, Six-Day War, the India-Pakistan wars, Yom Kippur War, Gulf Wars I and II, and the Balkan and Afghan Wars). Aside from the temporal, material and human costs involved, the nation's (and the military's) experience in the Vietnam War has led to a great reluctance to engage in these operations and, correspondingly, a lack of proficiency in them as well.<sup>3</sup>

Yet throughout history empires have confronted this form of resistance. While the United States is not an empire in the traditional sense, its combination of dominant power and global interests gives it some of the attributes of an imperial power. However, unlike earlier imperial powers such as Rome and Great Britain, the United States has yet to develop a military posture or doctrine for dealing with what is likely to be an enduring problem. The Army, which bears the brunt of the burden in stability operations, is now attempting to rebalance its force structure and to introduce new doctrine, in anticipation of similar missions in the future.

Two factors have made defeating groups like al Qaeda a difficult undertaking. First, one must consider these groups' rapidly growing destructive potential. They hope to use the highly interdependent structure of modern societies, to include the globalization process and society's own assets (e.g., airliners) to inflict catastrophic damage. They also seek to obtain weapons of mass destruction—not for deterrence purposes, but rather to employ them. Second, there is the relative sanctuary these groups have been able to enjoy, either by establishing a base of operations in friendly or failed states, or by exploiting the laws of liberal democracies to avoid detection.<sup>4</sup> In addition to conducting stability operations, military forces are also needed to monitor suspicious activities in “ungovernable areas,” conduct strike operations against hostile enemy elements when needed, interdict dangerous cargo (e.g. biological weapons), and defend the global commons from attack (e.g., terrorist efforts to disrupt the global energy trade).

Among the forces most likely suited for operations against irregular threats are:

- Military intelligence (in support of US and indigenous intelligence efforts, and with particular emphasis on human intelligence, or HUMINT);
- Special operations forces (SOF);
- Light infantry;
- Ground forces associated with governance, site/facility security and infrastructure repair and improvement, such as military police, civil affairs, transportation and logistics units, and engineers;

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<sup>3</sup> The lack of proficiency stems, in large measure, from the US experience in Vietnam, which led the US political establishment, both on the left and right, to emphasize its determination to avoid similar conflicts in the future.

<sup>4</sup> For example, there are a number of states that have sponsored terrorist organizations, to include radical Islamic groups. Among them are Afghanistan (under the Taliban), Iran, North Korea, and Syria. Among the weak or failed states that have served as havens for such groups are Lebanon and Sudan. Yet much of the planning for the 9/11 attacks was accomplished in Germany and the United States itself.

- Air transport, to include rotary lift, which enable both rapid deployment of disaster relief units and provision of supplies in austere environments;
- Coast Guard and Navy littoral control combatants to block infiltration along coastal regions, interdict dangerous cargo (e.g., WMD), and protect legitimate trade;
- Long-endurance, unmanned ISR platforms;
- A redundant network of sensors, including those capable of detecting radiological signatures and bio toxins; and
- Military leaders, officers and troops well-versed in the cultures and traditions of those areas in which these operations are conducted, and experts in training indigenous forces to conduct stability operations.

Correspondingly (and not surprisingly), among the forces least likely suited for duty as constabulary forces are:

- Heavy, armored ground forces;<sup>5</sup>
- Air and missile defense forces;<sup>6</sup>
- Tactical air forces; and
- Large maritime combatants and submarines.

As the US Army's force deployment challenges in Afghanistan and Iraq have demonstrated, the United States military is not organized, trained, or equipped to conduct protracted counterinsurgency and counter-terror operations on a large scale. In particular, the manpower requirements to sustain these counterinsurgency campaigns are considerably greater than those that can be supported by current force structure.

### **Allies and Partners**

In addition to rebalancing the existing force to better address the increased requirements associated with irregular challenges to its security, the United States should aggressively pursue allies that are able, and willing, to contribute forces capable of conducting operations against enemies pursuing irregular warfare. Allies should be encouraged to develop such forces, and

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<sup>5</sup> The urban character of the Iraqi insurgency and the effective use of heavy armor units in urban operations has led some to argue that the Army should retain this capability in the force structure. Many experts agree with this position. However, the fact remains that six of the ten divisions in the active Army are "heavy;" i.e., they emphasize heavy armored fighting vehicles. This represents excess capacity. The Army plans to reduce significantly, over time, its dependence on heavy units, by replacing many of them with "medium weight" Units of Action (UAs) and Units of Employment (UEs) based on networked Future Combat Systems (FCS).

<sup>6</sup> This may change when irregular enemy forces gain access to cruise missiles.

dissuaded from investing in less desirable military capabilities (e.g., nuclear weapons). In the case of friendly countries that are directly challenged by enemies waging irregular warfare, the US military must increase its capacity to train indigenous forces to conduct effective stability and counter-terror campaigns. This will require US trainers and advisors, transforming the existing US training infrastructure to address these kinds of contingencies, and providing the necessary capabilities and equipment.

## **TRADITIONAL CHALLENGES**

Traditional threats dominated US security concerns for most of the 20<sup>th</sup> century. The Kaiser's army, Germany's *Wehrmacht* and *Luftwaffe*, the Imperial Japanese Navy and Soviet military posed threats that were, for the most part, traditional and symmetrical (i.e., their militaries were rough mirror-images of the US military at the time). Although Iraq's military in the two Gulf Wars was also organized along relatively traditional and symmetrical lines, the challenges confronted by the United States today—as well as those that are anticipated over the QDR's planning horizon—will not likely be traditional or symmetrical in character. Simply put, the US military is entering an era of nontraditional, asymmetrical warfare.

Consequently some US conventional forces—in particular, heavy Army ground forces, large Navy surface combatants, and Air Force units requiring access to sophisticated forward air bases—will almost certainly decline in *relative* value. The Services are already taking some fitful steps in this direction. The Army's program emphasizes lighter, more expeditionary forces that, ideally, would be capable of operating independent of access to major fixed forward facilities (i.e., major ports, airfields and logistics hubs). The Navy and Marine Corps have haltingly proceeded with transformation. The fleet, under pressure from senior DoD officials, converted some of its retiring nuclear fleet ballistic missile submarines (SSBNs) to a nuclear guided-missile submarine (SSGN) configuration to provide enhanced capabilities in A2/AD threat environments. The Navy's decision to build a flotilla of littoral combat ships (LCSs) to address the peculiar challenges of coastal sea control fit well in a number of contingencies. The Air Force, however, while it has restructured to become more expeditionary, seems intent on maintaining a force posture that remains heavily dependent upon prompt access to advanced air bases that will remain sanctuaries against the emerging anti-access threat. This assumption is highly problematic.

Given the Cold War's 40-year duration, and the decades-long life of most major US military systems, conventional forces oriented on the traditional, symmetrical warfare of that era still dominate the US military. Given their relatively limited utility in addressing the threats posed by catastrophic, irregular and asymmetric challenges to US security, and the current budget environment, these forces must serve as "billpayers" to enable a more balanced force that better

reflects the new competitive environment.<sup>7</sup> This may be what is happening with the recent cuts to the defense program.<sup>8</sup>

## **DISRUPTIVE CHALLENGES**

The United States military must take into account the consequences of an ongoing military revolution that may produce disruptions, or discontinuities, in the character of military competitions. As noted above, military revolutions have occurred periodically for centuries. Often they are stimulated by major surges in technology that facilitate a discontinuous leap in military effectiveness over a relatively short period of time. The last military revolution in conventional forces occurred between the world wars, when mechanized armored forces came of age on land, aircraft carriers supplanted the battleship at sea, and strategic aerial bombardment was established as a new way of war.<sup>9</sup> In mid-century the world witnessed the introduction of nuclear weapons, once again leading strategists to rethink, in fundamental ways, the calculus of war.

However, defense planners are not operating entirely in the blind. The recent dramatic changes in the conflict environment outlined above have done much to clarify the immediate and mid-term challenges US defense planners confront. Moreover, it is possible to narrow the range of uncertainty regarding long-term challenges somewhat by examining major geopolitical, military-technical, economic, and demographic trends with an eye toward identifying key areas of future military competition. Such an exercise yields a competitive environment characterized by the challenges briefly described below.

### **Power Projection and the Anti-Access/Area-Denial Challenge**

With the Soviet Union's collapse the focal point of the military competition became more diffuse and uncertain. The US military found itself deploying to a wide range of geographic locations, from the Caribbean to the Balkans, Central Africa, the Horn of Africa and ultimately, following 9/11, to Afghanistan and Iraq. These deployments sent US forces far afield from their two Cold War "hubs" in western Europe and northeast Asia. The three enduring security challenges confronting the United States today—Radical Islam, China, and nuclear proliferation—are concentrated along an Arc of Instability stretching from the Mediterranean Sea to the Sea of Japan.

While the events of the past few years have reduced considerably the uncertainty over where the United States' greatest security risks lie, it is improbable that we will witness a return to large,

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<sup>7</sup> In the Army's case, the adaptive process is already underway. The Service is converting a sizable portion of its traditional forces, in the form of air defense and field artillery units, to forces more optimized for rapid deployment and, in reaction to the ongoing conflicts in Afghanistan and Iraq, stability operations.

<sup>8</sup> These cuts are set forth in the Defense Department's Program Budget Decision (PBD) 753, which, among other things, scaled back production of the Air Force F/A-22 fighter, and the Navy's DD(X) destroyer. Department of Defense, "Program Budget Decision 753," December 23, 2004.

<sup>9</sup> A strong case also can be made that over the past 15 years a precision warfare revolution has occurred and matured.

permanent, forward-deployed US forces on anything like the scale seen during the Cold War. There are three reasons for this. First, the Arc of Instability does not boast a strong concentration of US allies, as did Western Europe after World War II, or Japan and South Korea after the Korean War. Thus forward base access will be at a premium. Second, the durability and reliability of allies is not likely to be as high as it was during the Cold War, making forward basing—especially basing involving expensive base development—a risky proposition. Finally, the problem posed by missile attacks—both ballistic and cruise—against large, fixed forward bases will quite probably, over time, increase substantially the dangers of operating from such facilities. Hence traditional forces that are both expeditionary in character and capable of operating independent of forward base access will likely grow in importance in the US military's force structure relative to those forces that are optimized for forward deployment or rely on access to large, fixed forward bases as enablers.

Of greatest concern is the rapidly growing access of military organizations to space for reconnaissance and targeting purposes, combined with the proliferation of missile and WMD technology. This could allow even rogue state militaries to hold key forward ports, air bases and supply centers at risk using a combination of missiles, precision targeting and WMD. Simply the threat posed by such capabilities may deter the United States from acting to protect its vital interests abroad.

America's maritime forces will likely play an increasingly important role in supporting power-projection operations in the absence of forward bases. In so doing, the US Navy will find itself operating in the littoral, thus radically shrinking an adversary's search requirements, while also enabling an enemy to bring more of his military power to bear and greatly reducing the fleet's attack warning time. America's maritime forces can expect to encounter an enemy's "green water" naval forces, to include coastal submarines and stealthy, small surface combatants, along with sophisticated anti-ship mines operating in conjunction with its land- and space-based sea-denial assets. This combination of capabilities focused on the littoral region could enable an adversary to conduct effective area-denial operations at the same time the Navy is reorienting the fleet to emphasize enabling and supporting military operations ashore with ships operating in the littoral. Traditional forms of over-the-beach amphibious assault will also become progressively more difficult, if not prohibitively costly, in such an environment.

## **Space**

The First Gulf War witnessed the emergence of space-based systems as key supporting elements of ongoing military operations. Beginning with that war, the US military has increasingly relied on space-based systems for its effectiveness and this trend shows no sign of abating. However, with the growth of national satellite architectures and the commercialization of space, the near-monopoly in space enjoyed by the United States over its adversaries throughout the past decade is almost certain to come to an end. As this occurs, the United States will find itself in a competition to control space. This could be a formidable challenge, both because of the growing number of states and commercial firms with space-based assets and the potential difficulty of identifying whether access to satellite support capabilities (e.g., imagery, sensing, communications) have, in fact, been denied to an adversary. Toward the end of the planning horizon (i.e., 20 years into the future), the United States may be confronted with an adversary that has an anti-satellite capability.

## **Sea Control, Sea Denial and Threats to Maritime Commerce**

The diffusion of the capability to monitor relatively large, soft, fixed targets at great distances and to hold them at risk will influence the military competition at sea as well as on land. This will be particularly true as militaries acquire the ability to track and engage, at extended ranges, relatively slow-moving maritime vessels (e.g., surface combatants and merchant vessels) operating in restricted waters (e.g., in straits; the approaches to major ports). Consequently, militaries will likely confront challenges to maritime commerce not only from submarines, advanced anti-ship mines and land-based aircraft, but from space-based reconnaissance and communications assets, unmanned aerial platforms and extended-range ballistic and anti-ship cruise missiles as well. Such raids would likely focus on “strategic” cargo ships (e.g., oil supertankers) as they approach key predetermined maritime bottlenecks.

When these capabilities are applied on a larger scale, blockades against major ports and airfields become possible. These blockades could be undertaken, for example, by China against Taiwan, Japan or Korea; by India against Pakistan; or by Iran with respect to maritime traffic attempting to exit or enter the Persian Gulf through the Strait of Hormuz.

## **Advanced Irregular Warfare**

Operations against irregular forces are likely to change substantially as a consequence of demographic trends and technology diffusion. The preponderance of such operations are conducted in the Third World, which in many areas is experiencing rapid population growth. It seems likely, therefore, that future operations will increasingly find US forces seeking to exercise control over urban terrain, to include mega cities and areas of urban sprawl. A precursor of this challenge can be seen in recent US/Coalition operations in Iraq, and Israeli operations in the West Bank and Gaza Strip.

Furthermore, irregular forces will improve their capabilities and effectiveness as they bottom-feed off advanced technology diffusion. For example, they may radically improve their ability to coordinate dispersed operations thanks to the diffusion of personal communications equipment such as cellular phones, email and faxes. Indeed, it appears radical Islamist groups have already exploited the potential of these technologies. They may possess chemical and biological weapons, which they may use to hold both US forces and the noncombatant population at risk. Advanced mines and man-portable, anti-aircraft missiles could threaten US force mobility and survivability. Together, the effect of these trends will be to exploit enduring US military weaknesses by creating a competitive environment requiring manpower-intensive operations over a protracted period with the prospect of incurring substantial casualties. Ongoing insurgent operations in Iraq, which appear coordinated but which seem to have no clear traditional chain of command, are reflective of this shift, as are the means used to support their military operations (e.g., cell phones to remotely detonate improvised explosive devices) and their efforts to win popular support (e.g., camcorder tapings of specific attacks or atrocities for broadcast; use of the internet and international media such as *al-Jazeera*).

## **Urban Eviction**

The trend in warfare seems increasingly to favor combat operations in urban environments. The Israeli experience in Lebanon and with the Intifada was highlighted by urban operations, as are

current US and coalition operations in Iraq. In part, this stems from the trend toward increased urbanization around the globe. It also derives from the relative weakness of irregular Palestinian and Iraqi forces against conventional armed forces. Urban defense may also be a fallback strategy of enemy regular forces if the United States military develops the ability to defeat their anti-access/area-denial capabilities. As the Gulf War and Operation Allied Force demonstrated, enemy ground forces are no match for the US military when fighting concentrated and in the open. Consequently, they now have an enormous incentive to disperse and to position themselves in so-called complex terrain, such as mountains, jungles or urban environments. Urban control and eviction operations would dilute the American military's competitive advantage in technology, while exploiting the United States' alleged aversion to manpower-intensive operations and the risk of higher casualties. Thus, urban control and urban eviction-capable forces could be an increasingly desirable characteristic of US military allies. Both US/Coalition and Israeli forces have found themselves operating increasingly in urban environments in recent conflicts.

Among the forces most likely suited to address disruptive challenges are:

- Prompt and persistent stealthy long-range strike forces (e.g., long-range bombers);
- Long-range, long-endurance, stealthy ISR systems, manned or (more likely) unmanned;
- Sea-based power-projection forces;
- Littoral sea-control forces (e.g., distributed, networked surface/subsurface/air platforms);
- Sea-based Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR), positioning and targeting assets;
- Advanced, sea-control unmanned underwater vehicles (UUVs);
- Rapid sealift with over the beach roll-on/roll-off capability;
- Airlift (including a significant stealth airlift capability);
- Aerial refueling aircraft (including a significant stealth refueling capability);
- SOF;
- Rapidly deployable, highly distributed and networked air and ground forces, especially those capable of conducting precision strikes at extended ranges, and those capable of executing urban eviction operations;
- Space control forces (e.g., ground-based anti-satellite (ASAT) systems, survivable/rapidly replaceable and/or reconfigurable space architectures);

- Information warfare forces, both for offensive and defensive operations at all levels of warfare (i.e., the tactical, operational, and strategic);
- Air and missile defense forces; and
- WMD consequence management forces.

It must be understood, however, that positioning to address disruptive challenges is primarily about the future. Efforts here must account for the possibility (indeed, the likelihood) that discontinuous changes in the competitive environment will require major shifts in the Department's investment strategies.<sup>10</sup> These strategies will ideally be developed in advance of coming discontinuities (i.e., anticipatory transformation), rather than in their wake (i.e., reactive transformation). Currently the Defense Department is struggling to do both, even though senior Defense leaders clearly see the need to accord increased emphasis to security challenges which represent dramatic departures from the traditional military challenges that dominated thinking and resource allocation in the Cold War and immediate post-Cold War periods.

The Defense Department must adopt an investment strategy that takes future discontinuities into account from a somewhat disadvantageous position. The ongoing war against radical Islamist terrorist organizations and the related US military operations in Afghanistan and Iraq have heightened demands for defense investments that address immediate needs. The situation is further exacerbated by the military services' desire to emphasize an in-kind modernization effort to make up for the "procurement holiday" of the 1990s, and the greater-than-anticipated use rates for many types of existing military capital stock (e.g., Army helicopters).

A key part of any investment strategy during a period of discontinuity is an increased emphasis on hedging against heightened risk and uncertainty. To the maximum extent possible, a hedging strategy should avoid locking-in to either legacy or emerging capabilities. With respect to the latter, it is important to recognize the dangers of "false starts" and "dead ends," and the value of "wildcatting."<sup>11</sup> To the extent wildcatting enables field/fleet exercises at the operational level of

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<sup>10</sup> To support the fielding of these force/capability types, and to hedge against the possibility that future threats could require a significantly different capability mix, the Defense Department will need to craft an investment strategy for its science and technology (S&T) and research and development (R&D) that explicitly accounts for uncertainty. See Krepinevich, *Defense Investment Strategies During Periods of Military Discontinuity*.

<sup>11</sup> Wildcatting involves investors buying *access* to a wide range of new capabilities in operationally significant numbers that can serve as *options* to be exercised if and when it becomes appropriate. These capabilities represent a portfolio of sorts. A common characteristic among these capabilities is their potential to make a major contribution in either bringing about a discontinuity (i.e., exploiting a potential opportunity at the operational or strategic level of warfare), or enabling the military's ability to compete effectively in response to a discontinuity (i.e., meeting a very different challenge at the operational or strategic level of warfare) in the competitive environment. "False starts" are those capabilities that offer great promise in addressing potentially discontinuous shifts in the security competition, but which are not yet mature. Investing in these systems is premature. A case in point is the US Navy's affection for its first carrier designed from the keel up, the *Ranger*, which was commissioned in 1934. Although some Navy leaders had pressed for construction of five *Ranger*-class carriers, war game analysis and fleet problems soon indicated that, at roughly 14,000 tons, the *Ranger* was far too small to meet many of the demands of future fleet operations. As it turned out, the *Essex*-class carriers that formed the backbone of the Navy's fast carrier task forces in World War II each displaced nearly twice as much tonnage as the *Ranger*. The problem of "dead ends" is even worse. These are capabilities that appear promising in terms of their ability to address emerging discontinuities in

war, it helps the Department buy options, or insurance, against an uncertain future, thereby reducing risk. Perhaps the ultimate expression of avoiding lock-in is to skip a generation of legacy systems as a means of avoiding in-kind replacement in a period of discontinuous change. Finally, it should be noted that the United States, with its enduring scale and technical advantages, can employ wildcatting to impose costs on its rivals by simply broadening its options portfolio, thereby complicating adversaries' planning by increasing their risk and uncertainty regarding which options the Department will ultimately exercise.

Emphasis must be placed on time-based competition, which also works to reduce risk and uncertainty while increasing the adversary's problems in this area. The more effectively the Department can compete based on time, the lower the risk it incurs and, hence, the less of a need there is to hedge. Again, experimentation, particularly through field/fleet exercises, also provides a means for reducing risk and uncertainty, thereby enabling more effective use of limited investment resources. Unfortunately, for a variety of reasons, the Defense Department is not well positioned to compete based on time. Given the importance of this aspect of investment strategy—especially during periods of anticipated discontinuity in the military competition—high priority should be accorded to improving dramatically the Department's capability in this area. This implies a commitment to reforming the acquisition system, something that has eluded the efforts of senior defense officials for over a generation.

If history is any guide, however, shifting resources to address the discontinuities in the military competition that have emerged in the past few years will prove difficult. Getting the Services to restructure their investment profiles to prepare for future discontinuities will be more difficult still. Indeed, in the final analysis, investment strategy techniques in periods of military discontinuity are only tools. If they are to be applied properly, the most senior leaders in the Defense Department, to include the Secretary of Defense himself, must have a clear sense of what types of challenges are most likely to stress the US military in its endeavors to preserve the nation's security. Beyond that, however, the leadership must devote substantial energy toward developing and overseeing a process by which decisions can be made as to what mix of investment strategies should be pursued. This means putting into place a process for making informed choices, both within and across traditional Service investment boundaries; i.e., increasing the "trade space" available to the Defense Secretary.

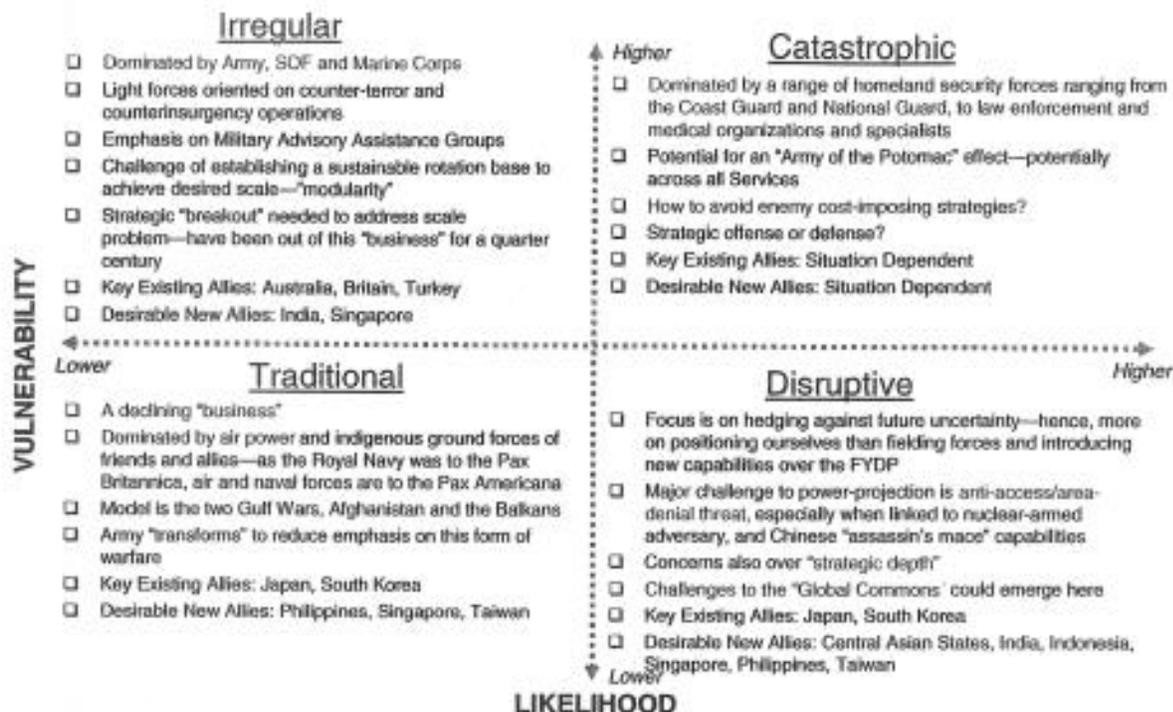
Finally, if the Defense Secretary is to convince the Services to abandon their natural instincts to resist the prospect of large-scale change, then he must be willing to make major investment decisions on far less than definitive information as to what constitutes the optimal force and investment mix for the US military. The Department's track record in this area is, to put it kindly, less than sterling. It is the principal reason why the US military is *reacting* to the transformation in certain areas of warfare that clearly emerged in the wake of 9/11, rather than having anticipated it. Unless this problem is redressed, the Department will find itself continuing to react to—rather than having anticipated—future discontinuities in the military competition. Avoiding such a future by *anticipating* new force/capability requirements requires a sense of

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warfare, but which fail to pan out. The challenge here is not to avoid premature investment; rather, it is avoiding large-scale investments entirely. An example of a "dead end" capability is the airships of the early 20<sup>th</sup> century.

urgency and a willingness to make decisions. At a minimum, this means rebalancing the Defense Department's investment portfolio to field forces/capabilities that match those outlined above to meet existing and emerging challenges to US security.

Figure 1: Meeting the Challenges



## THE ARMY AND THE RESERVE COMPONENT

The Army has by far the largest number of reserve elements of any of the four military services. Today's Army is comprised entirely of volunteers, and is organized and structured primarily for relatively brief operations against conventionally armed adversaries. In the decade following the Soviet Union's collapse, long-term operations at the lower end of the conflict spectrum were conducted by the Army with minor difficulties. But the scale of these operations was low—requiring a few brigades, such as in the Balkans, for example. These small-scale operations enabled the Army to sustain an adequate rotation base. This is not the case today in Afghanistan and Iraq, where the Army has roughly 15 brigades forward deployed in combat operations.

The volunteer Army is based on the presumption of career service for a substantial percentage of its soldiers. The United States instituted an all-volunteer force in 1973, at the end of its direct involvement in the Vietnam War. The volunteer force differs from the conscription era force, which drafted young men into the Army for several years, after which most returned to civilian life. Thus during the large-scale and protracted Army deployment during the Vietnam War, many of its troops were draftees that were given training, rotated into the combat theater, and then returned home and departed from the Service, to be succeeded by another wave of

draftees.<sup>12</sup> The Army's challenge with the draft-era military was to train large numbers of new troops to fight effectively against a veteran enemy force (i.e., the Viet Cong and North Vietnamese Army).

A professional force, on the other hand, faces a very different problem. In many respects, today's professional Army is superior to the draft era force. For example, in protracted conflicts such as the ones now confronting the Army in Afghanistan and Iraq, draftees might serve once in the combat theater before departing the military. Long-term volunteers, however, might serve a number of tours. It seems reasonable to assume that a soldier serving his or her second or third tour would be more effective than a soldier deploying for the first time.

The Army's challenge with a volunteer force is to establish a sustainable rotation base. If the Army rotates its troops too frequently into combat, it risks having soldiers decide that a military career is too arduous or too risky an occupation for them to pursue. This leads to the question: How often can a soldier be deployed into a combat zone and still desire to remain in the Army? The answer, of course, is different for every soldier, but the deployment ratio seems to be somewhere between 3:1 and 5:1. That is, for every brigade that is forward deployed in combat operations or in a "hardship" tour, there must exist between three and five brigades to sustain the rotation. Thus a 3:1 rotation base would find soldiers deployed on such missions one-third of the time; a 5:1 rotation would see them deployed one-fifth of their service time. For the purposes of this assessment, a 4:1 deployment ratio is assumed.<sup>13</sup> Thus a soldier under these circumstances could expect to be on deployment six months out of every two years. The Army currently has 37 active brigades. Using a 4:1 ratio, this means it could sustain forward roughly nine brigades at any one time. This is far below the current deployment requirements.

In order to avoid overstressing its active units the Army has increasingly relied on the National Guard and Reserves to help maintain its deployment requirements. The National Guard currently has 36 brigades, although only 15 are Enhanced Separate Brigades most readily deployable. The Army hopes to increase the number of these brigades to 28 by decade's end. The rotation base ratio for Guard units is probably closer to 8:1. This means the National Guard could sustain roughly two brigades forward on deployment within its current configuration. This number, combined with the brigades available from the active force, still leaves the Army short of its current deployment requirements.<sup>14</sup>

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<sup>12</sup> The point here is merely to point out that, under a conscription system, the Defense Department can increase the size of its monthly draft calls to match anticipated force requirements, as occurred, for example, during the Korean and Vietnam wars.

<sup>13</sup> The 4:1 ratio rotation base used here is based on the author's discussions with senior Army leaders. It also conforms to the rotation base ratio used by the Marine Corps. A study by the Congressional Budget Office concluded that "rotation ratios of between 3.2:1 and 4:1 span the range expected to be feasible over the long term for active-component units." Douglas Holtz-Eakin, CBO Office, "The Ability of the U.S. Military to Sustain an Occupation in Iraq," Testimony, Committee on Armed Services, US House of Representatives, November 5, 2003, p. 11.

<sup>14</sup> Regarding retention and recruitment, other factors in addition to the rotation base come into play as well. For example, if soldiers perceive that they are being poorly led, or engaged in executing a failed strategy, their willingness to persevere may decline, perhaps dramatically. During the Vietnam War, once it became clear the

Options for addressing the problem—such as violating rotation base ratios, imposing stop loss and stop movement requirements, tapping into the Individual Ready Reserve, and deploying marines into Iraq, have already been exercised. But they are short term fixes at best.

The stress of overseas deployments, soon to enter their fourth year, is beginning to show. Army and National Guard recruiting are down, as are the Guard's re-enlistment rates. The Army hopes to reduce deployments in 2006. However, this will depend upon how quickly indigenous Afghan and Iraqi security forces are able to assume a greater responsibility for their countries' internal defense.

The threats confronting the nation clearly argue for an Army that is more oriented on irregular warfare (and perhaps homeland security) than is the current force. More emphasis needs to be placed on fielding forces that are able to sustain themselves in what may be protracted campaigns, while maintaining a significant heavy force as a hedge against the requirement to conduct major combat operations against a more traditional enemy.

To meet the demands of an era that may be dominated by protracted irregular warfare, the Army is restructuring itself to field more brigades under its modularity initiative. Under it, the Active Component will increase the number of brigades to 42, while the National Guard will see its brigades set at 28.

The Army's modularity plan may offer less than meets the eye. For example, while each division will have four brigades, vice three under the current structure, each brigade will have only two battalions, vice three under the current structure. Thus the actual number of combat, or maneuver, battalions in each division will actually decline, from nine to eight. Telescoping down to a common combat unit, the company, one finds the Army now has roughly 624 maneuver companies. The Congressional Budget Office estimates a 43 brigade modular Army would have around 618 maneuver companies. Thus the number of combat "boots on the ground" may not change significantly.<sup>15</sup>

Simply put, the Army is in a race against time, in which its ability to adapt competes with the demands to reduce forward deployments or risk "breaking" the force in the form of a catastrophic decline in the quantity and quality of its recruitment and retention.

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United States was looking for a way out of the conflict rather than attempting to win it, there was a heightened degree of cynicism among soldiers, and a corresponding decline in their willingness to sacrifice in order to accomplish the mission. The phrase "Why die for a tie?" is emblematic of this attitude.

<sup>15</sup> The Army notes that its growing emphasis on exploiting information has led to its creation of battalion-size reconnaissance formations to better identify the enemy's location and disposition. This fits the Service's vision of shifting away from close combat as the decisive part of the engagement, and toward an Army that will "see first, understand first, act first, and finish decisively." Each brigade, light or heavy, will have one of these battalion-sized units. The question then becomes whether or not they are combat maneuver formations, or combat support elements. The Army argues they are part of the combat maneuver element. If so, this would increase by three the number of combat companies per brigade. However, given that the Army's doctrinal literature focuses so heavily on traditional warfare, the value of these units in irregular warfare contingencies must be substantiated prior to accepting the Army's claim.

If it performs as advertised, the Army's efforts to move toward a modular brigade force could be an important step in establishing a larger rotation base. The Service anticipates that once its modularity initiative is completed, it will be able to sustain roughly 18 brigades in the field on a sustained basis without overly stressing the force. Steps being taken to increase the Army's SOF and Ranger strength are also to be commended, given the growing challenge of irregular warfare, and the same can be said for projected increases in civil affairs and psychological warfare units.

As the modular force comes into being, the Reserve Component might take on more of the responsibility for the homeland security mission and for providing heavy conventional forces as a hedge against a major conflict. These roles fit the RC's traditional role as a militia and, during the Cold War, a force that could be readily mobilized in the event of a national emergency. The Reserve Component would still provide support elements for active brigades, and National Guard brigades would be deployed to support stability (and related) operations, but the Active Component would take on a substantially greater burden for this mission requirement.

This brings us to the Army's plans for its Future Force, which is centered on the Future Combat Systems and its central role in a highly networked land force. To date, the Army's vision of this force centers overwhelmingly on combating a conventionally armed enemy fighting an open battle against US forces. This kind of enemy is unlikely to appear any time soon, thanks to the overwhelming victories won by US forces against conventionally armed adversaries. The Army vision of the Future Force says little about how the force would function in urban terrain, or how the force would operate in irregular warfare contingencies. Given the differences between conventional war and irregular warfare, it seems unlikely that a force optimized for the former will also be highly capable in the latter.

The FCS is also technologically ambitious and, not surprisingly, confronts a number of development and procurement challenges. Given these challenges, the FCS's orientation on traditional warfare, and the Army's fiscal problems, serious consideration should be given to "mothballing" the program until its operational relevance is assured (e.g., in projecting power in an anti-access/area-denial environment; in irregular operations) and technical barriers become less formidable.

Finally, it is important to acknowledge that the Army cannot easily scale itself up beyond a certain level. For example, Iran has roughly three times the population of Iraq, and Pakistan more than double the population of Iran. Were the United States confronted with having to conduct stability operations in Iran on the scale it has in Iraq, it is unlikely to be able to sustain roughly 40 brigades for a protracted period to stabilize the country, let alone the number that would be required to address a Pakistan contingency.

Given these limits, the Army will need to enhance its capacity to organize, train and equip indigenous and allied forces capable of conducting protracted operations at the low end of the conflict spectrum. This means increased training and education on the cultures of those states that lie along the Arc of Instability. To this end, the Army should increase substantially the training of Foreign Area Officers (FAOs) on Asian and Islamic languages and cultures. The Army's Military Intelligence branch should be similarly oriented, with emphasis on counter-terror and counterinsurgency operations. It also means developing what, during the Vietnam

War, were called Military Assistance Advisory Groups, or MAAGs. These organizations, as their name implies, were designed to support the organization, training and equipping of militaries whose governments were threatened by internal or external aggression.

## **CONCLUSION**

A cursory review of the challenges confronting us reveals some first-order decisions that can be advanced with little fear of being overturned by more detailed analysis:

- The Army and Marine Corps need to reorient themselves to place greater emphasis on *irregular challenges* to our security, with principal emphasis on capabilities associated with foreign military assistance, special operations, counterinsurgency, counter-terror “manhunting” and human intelligence.
- The Air Force and Navy need to increase their efforts to address existing and prospective *disruptive challenges*, to include emerging anti-access/area-denial capabilities and threats to the global commons (e.g., space, the infosphere; offshore undersea economic assets such as the global fiber optic grid and energy fields; and maritime commerce).
- It seems likely that the four Services have important roles to play in addressing direct, *catastrophic threats* to the US homeland. These include defense against ballistic and cruise missile attack, border control, defense against delivery of WMD through nontraditional means, and consequence management. However, the US Government has yet to provide clearly defined roles for the various departments and agencies involved in homeland security, or to define the division of responsibilities between the federal, state and local governments, and the private sector.
- Military operations over the past fifteen years have demonstrated that when our enemies challenge us in *traditional warfare*, as in the two Gulf Wars and in the Balkans, air power can play an increasingly important if not dominant role. While all four Services should maintain a significant residual capability for traditional warfare, the Army and Marine Corps should be able to migrate more of their capabilities into other challenge areas than either the Air Force or the Navy.

Given the challenges confronting the nation, it is thus critically important to seize this opportunity to craft a strategy and force posture to sustain the nation over what is likely to be a long and difficult period.