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Pentagon Reform for President Obama and the New Congress

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INTRODUCTION AND HISTORIC OVERVIEW
The Overburden of America's Outdated Defenses

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"May you live in interesting times." This oft-quoted Chinese curse rings at least as true today as it did when it was first uttered. The latter half of the 20th century and the beginning of the 21st century has indeed proven to be extraordinarily "interesting." Three profound environmental changes have characterized this period. One was the introduction and spread of nuclear weapons. Another was the sudden fall of the Soviet Union and end of the Cold War. The third was the revival and spread of irregular warfare. By irregular warfare we mean wars fought by irregular forces or what the Pentagon describes as "armed individuals or groups who are not members of the regular armed forces, police or other internal security forces."[1]

This anthology is not so much about these changes themselves as it is about the U.S. military's reaction to them. More particularly, its various contributors examine how the U.S. military has reacted to these changes and what, if anything, we can or should do about it.

All of the book's contributors call for reform in a wide variety of areas including finances, procurement, training, tactics, doctrine, organization and military professionalism. The purpose of this introduction is not so much to propose solutions as it is to set forth some of the key and often complex problems that will be tackled by the contributors to this volume.

Most of America's military problems are not new. In the past, they have often been recognized but seldom confronted. We believe that today the need to deal with them has never been greater. Not only does our future military success depend upon it, but our image abroad, influence in the world and our economy, as well as our liberties and the survival of our republic, do as well.

The most important problems can briefly be summarized as follows:

- Our military has broken its constitutional controls. Our Founding Fathers wanted no more than a very limited size and role for a federal military. They feared standing armies not only because they might be used against the American public, i.e. to establish military rule, but also for their potential to involve us in costly foreign wars that would drain our treasury, erode our freedoms and involve us in the "entangling alliances" that George Washington warned of in his farewell address. At that time our armies were composed mainly of state militias that the president needed the cooperation of Congress and the

state governors in order to use. Today, we have one large all-volunteer federal Army, which for all practical purposes responds only to the president and the executive branch. It has engaged in numerous foreign wars, involved us in many entangling alliances, drained our treasury and eroded our liberties just as our Founding Fathers foresaw. It has enabled the president to take the nation to war on little more than his own authority. The recent repeal of the *Posse Comitatus* Act of 1878 allows him to unilaterally use the military not only against foreigners, but against the American people as well.

- Our military is inwardly focused. This is to say that it focuses on itself and its internal concerns, rather than looking outward at the world and reacting to what occurs there. This is partly a consequence of domestic politics, which determine the military budget, and partly due to a climate of intellectual laziness and complacency that prefers the glories of the past over the unpleasant realities of the present and future. This has made it very difficult for us either to produce or implement a realistic grand strategy or to adjust to changing realities, particularly the emergence of Fourth Generation War (4GW).

- Our military is very expensive. The "official" budget will soon hit $600 billion per year. This approximates the military budgets of all other nations of the world combined. Some have argued that this amounts to only a few percent of our gross national product (GNP) and that it should be increased. One might reply, however, that the military budget might instead be determined by the military needs of the nation (the determination of which requires looking outward at potential threats) more than an arbitrarily determined portion of its economy. Also, the real budget is much higher than the official one. The official budget does not include the Department of Homeland Security or Veterans Affairs, both of which are really military expenses. The current wars in Iraq and Afghanistan are paid for by offline "supplemental" budgets so they are not included either. If one adds these costs the budget climbs to about a trillion dollars. It absorbs much of the government's discretionary spending and has contributed significantly to the depreciation of the dollar.

- As our military gets more expensive it gets smaller and less capable. Although the current military budget, even adjusting for inflation, is the highest since World War II it buys us only modest forces. At the height of the Reagan military buildup in the 1980s the U.S. Army had 18 active divisions. Yet today, with a higher budget, it has only 10. At the height of the Vietnam War the U.S. military maintained over 500,000 men in Vietnam besides a substantial force in Germany under NATO. It fought an enemy with more than half a million

men under arms that had armor, heavy artillery, and even small naval and air forces. The North Vietnamese were also receiving assistance from both the Soviet Union and Communist China. Today, it is all the U.S. military can do to maintain 140,000 to 150,000 troops in Iraq and 30,000 in Afghanistan, where they fight enemies whose combined strength (after Saddam's fall) seldom if ever exceeded 30,000. Unlike in Vietnam these enemies have no air or naval forces, no modern heavy weapons, little or no formal military training, and no outside support. This dramatic decrease in U.S. capabilities should be no less astonishing than the simultaneous increases in the budget. Worse, the strength of the forces we have is eroded by the skyrocketing costs of new weapons. It has resulted in a shrinking inventory of aging weapon systems only a fraction of which can be replaced because their replacements are too costly.

- Our military is not professional. That is to say its officers, especially the senior ones, are poorly educated in the military profession. U.S. Army training in mechanical skills such as flying an airplane or repairing a truck compares very well to similar training in foreign militaries. However, true comprehension of why things are done as opposed to how to do them, is usually deficient. This makes it much harder to deal with the unfamiliar and unexpected. This in turn relates to the military's inward focus already referred to. It is easier to focus inwardly on the familiar than outwardly on the unfamiliar. This follows a long American tradition of commissioning officers at the last-minute (usually when a war is just beginning) based largely on civil education and social status, and then giving them training not unlike that of enlisted recruits. Subsequent promotion depends more on politics, social skills and personal ambition than on military and leadership skills. This has left us with a military that has a leadership that has never really learned to "think" in its own profession. Such leaders find it difficult to devise sound strategy or offer advice to their political superiors that they can clearly explain and justify.[2]

A more detailed elaboration of these main points appears below. Readers should understand that the four points given above are in fact so closely interrelated that to discuss them separately would only lead to confusion. Therefore, I have taken a more chronological approach to describe how these problems evolved and what effect they have on military policy today.

Stuck in Our History: How Our Military Became the President's Own Army

Prior to independence and for many years afterwards the principle defense of North America rested on a citizen militia. This only made sense. Before independence we owed allegiance to Great Britain, who while obligated to protect us, was more than

3,000 miles away. Being an island, Britain relied on its navy for national defense. For home defense it relied on a militia from which ours was later derived. The modern British Army, however, came not from the militia, but from the "New Model Army." This was a force of military professionals that Parliament raised in 1645 to stiffen the militia armies waging a civil war against King Charles I. Militarily the New Model Army was a great success. It defeated Charles' armies, captured and executed Charles himself, chased his son into exile, and then trounced the Scots and the Irish for good measure. Politically, it was a disaster. After dealing with Charles it turned on and overthrew the very Parliament that had created it. It then placed England, until that time probably the freest nation in Europe, under the military dictatorship of its commander, Oliver Cromwell.[3]

Military rule soon became unpopular not only for its repression but also for the high cost of a standing army. After Cromwell's death a reconstituted Parliament and George Monck, one of Cromwell's generals, restored the monarchy in 1660. Parliament and the new king, Charles II, restored the militia and replaced the New Model Army with a tiny national army that, although it gradually increased in size, stayed out of sight and under tight control for many years. The British did not soon forget what an out-of-control military could do.[4]

Our Founding Fathers did not forget it either. The British Army's occupation of Boston also served as a sharp reminder, if any was needed. Nevertheless, Congress soon realized that it could not fight the Revolutionary War with militia alone, and so it raised the Continental Army from militia volunteers. Although the Continental Army never enjoyed the stunning battlefield successes of the New Model Army, it ultimately did what was required of it and then (to everyone's relief) went quietly home. Congress initially retained only a single artillery company to guard stores at West Point. The following year, 1784, it raised a regiment from 700 militiamen to guard posts on the northwestern frontier.[5] Over the next century, Congress gradually increased the U.S. Army's size and responsibilities but as late as 1898 the Army was still authorized only 27,000 men. As for the Navy, Congress sold its last ship in 1785 and only authorized a postwar navy in 1797 after the need for trade protection became imperative.[6]

Congress also established the relationship between the federal government and the state militias with two militia acts passed in 1792. The first gave the president the authority to call out the militia in response to foreign invasion or internal disorder. The second ordered that the militia consist of all able-bodied male citizens between the ages of 18 and 45. Each member would arm and equip himself at his own expense and report for training twice a year. The state legislatures would prescribe the militia's tactical organization (companies, battalions, regiments, etc.). As time went on, however, and the nation grew more secure, militia service effectively became voluntary. Militia units began to resemble social clubs more than military organizations, but even as late as 1898 the militia could field five times more troops than the U.S. Army.[7]

If the president wanted to take the United States to war, he would need a national army that, unlike the militia, could fight anywhere, not just within its home states. Unless the war was to be of extremely limited scope and duration, the regular U.S. Army would be too small. To enlarge it, the president would have to go to Congress not only to obtain a declaration of war, but also the authority and funding needed to call for militia volunteers. Assuming that Congress was forthcoming, the president would then issue a call for volunteers, ordering each state governor to raise a fixed quota of men from their respective militias. These orders were difficult to enforce and during the war of 1812 and the Civil War several governors refused them.[8] However, those that complied would call on the individual companies and regiments of their respective militias to volunteer for federal service. The members of those units would then vote on whether their units would become "U.S. Volunteers." Individual members of units that volunteered could still excuse themselves from service for health or family reasons.

Given that most militia units were below their full strength in peacetime, and that a portion of their existing members would be unwilling or unable to serve, they would need a lot of new recruits if they were to go to war. They would also need time for training and "shaking down." Secretary of War John C. Calhoun in 1818 noted that the United States had no significant continental enemies and was essentially an insular power. Thus, the Navy could ensure that an invader could not land in America before the U.S. Volunteers had time to prepare.[9]

The system certainly made it harder to go to war. In the first 100 years of its existence the United States fought only two significant foreign wars.[10] However, the system certainly had its defects and its critics. Among the most prominent and vocal critics was author and Army officer Emory Upton. Upton graduated from West Point on the eve of the Civil War and greatly distinguished himself during that conflict. By 1865 he was a U.S. Army lieutenant colonel and a brevet major general in the U.S. Volunteers. Upton was appalled at the unnecessary loss of life resulting from the professional incompetence of the United States Volunteer (ex-militia) officers and, unlike his contemporaries, resolved to do something about it. After the war, Army commanding general William T. Sherman sent Upton on a tour of Europe and Asia to study foreign armies, especially the German army, in view of its recent (1871) victory over the French. Upton returned full of ideas about how to professionalize the U.S. Army along German lines. These included the establishment of advanced military schools, a general staff and a personnel evaluation system that included promotion by examination. Upton published an account of his experiences and opinions in his first book, "The Armies of Asia and Europe" in 1878. He also began his second and far more important book, "The Military Policy of the United States." This was a detailed organizational and administrative history of the U.S. Army from the American Revolution forwards. By 1881, Upton (then a colonel) had advanced his narrative to 1862

when he committed suicide at his quarters at the Presidio of San Francisco. Upton is known to have had a brain tumor at the time, and pain or madness from that may have been the motive. However, depression brought on by the recent death of his wife and his own belief that the Army had rejected his ideas probably contributed.[11]

In that last belief, Upton proved to be quite wrong. His second book was highly influential even though it was not actually published until 1904 and only circulated in manuscript form before then. In his book, Upton constantly stressed the folly of entrusting the defense of the United States to ill-trained militia amateurs rather than properly trained military professionals. As a result, soldiers and politicians, many of the latter being Civil War veterans, began to look for ways to either abolish or neuter the militia, or place it under firm U.S. Army control.

The first major clash between the Uptonians backing the professionalization of the Army and traditionalists who defended the status quo occurred in 1898 just before war with Spain. The Uptonians wanted to fight the coming war with an expanded U.S. Army and leave most of the militia on the shelf. However, politically influential militiamen defeated this attempt and forced the government to call out every militia unit that wanted to participate. Together with swarms of individual volunteers, the Army found itself with far more men than it could train or equip, as well as many more than it needed to fight the Spaniards. The result was a logistical disaster that, through privation and disease, killed many more men than the Spanish did. As soon as the war was over the militiamen and other volunteers demanded their discharges and headed home. They had, however, left some important business unfinished.[12]

The peace treaty gave the United States most of Spain's colonial empire. The need to garrison these new territories after the militia went home got the Army the expansion it had sought before the war began. Congress also passed the Militia Act of 1903. This superseded the 1792 acts and greatly extended federal control over the militia, by now increasingly known as the National Guard. The act established a Division of Militia Affairs within the Office of the Secretary of War and vastly increased federal subsidies for the militia. Militia units had to conform to U.S. Army organizational practice and submit to regular inspections. Members had to attend 24 drills and five days' annual training per year. Officer selection and training had to conform to federal standards.[13]

An even greater change came with the National Defense Act of 1916, passed in anticipation of America's entry into World War I. In effect, it transformed all militia units from individual state forces into a federal reserve force. The title of "National Guard" became mandatory for all militia units and, within the War Department the Division of Militia Affairs became the National Guard Bureau. Instead of the state titles that many had borne since the colonial era the former militia units received numbers in sequence with regular Army units. In addition, the act created a U.S. Army Reserve of trained individuals not organized into units and established a Reserve Officer Training Corps (ROTC) in the colleges and universities.[14]

With the passage of the 1916 Defense Act, the Uptonians had won the control they needed to truly professionalize America's armies. The political cost had been high. America now had the large professional standing army (with no counterbalancing militia) that our Founding Fathers warned us against. The president now controlled all of the nation's armed forces in peacetime as well as in war. He would no longer have to beg either Congress or the state governors for troops.

Within a few years he would not have to ask Congress for a declaration of war, either. Yes, Congress still holds the purse strings but, as other chapters of this book will show, it has never gripped them very tightly. Like the New Model Army, the new U.S. Army was effectively accountable only to the executive branch of government. However, it has not enjoyed the New Model Army's unbroken success and especially not since World War II. Although the Uptonians had succeeded in usurping the powers they needed to reform the Army, they largely failed to implement the reforms themselves.[15]

At first there was some excuse. President Woodrow Wilson lost no time in exercising his new powers as armed forces commander in chief. Within a year, well before any serious military reform was possible and completely contrary to his re-election platform he brought the United States into the First World War. (He did at least ask Congress for a declaration.) He even invaded Russia (without a declaration) in 1918.[16] Although the Army had expanded five-fold since 1898, it was still far too small for a European war. Even after all Reservists and National Guardsmen had been called up, the Army would have to expand ten-fold. It needed 150,000 officers but the regular Army, Reserve and National Guard together had only 8,000. Needless to say, the Army cut a lot of corners to get its 150,000 officers and encountered the same problems Upton had railed about regarding the Civil War era U.S. Volunteers. Like the Union Army, however, the American Expeditionary Force (AEF) of 1918 could still tip the military balance in favor of the Allies but the cost was high. Though only in action for about 200 days, the AEF sustained more than a quarter million battle casualties besides many more losses from accidents and disease.[17]

Surely, the problems the AEF experienced would have been fixed in time for the next war. There had been 20 years of peace during which reforms could have been undertaken. Compared to the frantic last-minute mobilization for World War I, the U.S. Army's mobilization for World War II was almost leisurely. It really began just after Germany invaded Poland in 1939 (the Roosevelt administration expected the United States to enter the war sooner or later). Congress had been ramping up the military budget for some years before that. By the time of the Pearl Harbor attack the process was well along, the National Guard having already been called up, the regular Army considerably expanded and a peacetime draft instituted. Furthermore, because of shipping shortages many divisions literally had to wait years to go overseas. Indeed, if not for the organizing genius of Army Ground Forces chief Lt. Gen. Lesley J. McNair

much of the Army might not have gotten overseas at all. By the time the bulk of the U.S. Army had entered combat, which was not until well into 1944, the outcome of the war had been largely decided.[18]

Despite all these opportunities to implement them, the reforms never actually happened. Rather than build a truly professional officer corps, the Army chose instead to appoint officers based largely on education and social background. It also appointed far too many officers, for whom it later experienced great difficulty in finding jobs. Officer training was brief and "by the numbers," imparting enough information to solve the problem at hand, but not enough for true understanding. The Army's most important and challenging combat arm, the infantry, received a lot of low-quality officers and recruits because infantry did not require a lot of technical training. Thus, the Army concluded that anyone was fit for it. The Army also neglected its noncommissioned officers (NCOs), making officers out of the best of them and not according much respect or prestige to the others. Emory Upton would have been spinning in his grave.[19]

It has often been argued that the U.S. Army was a citizen force that could not achieve the same professionalism as the army of a more militarized state like Germany, but American "know-how" and initiative would make up the difference. However, when America was rearming, Germany, despite its Nazi government and the fact that its army (like the American) responded only to the authority of a "unitary executive," was not yet a militarized state. The Allies' post-1919 disarmament of Germany had been pretty thorough. Germany had been allowed to keep an active army that, relative to its population, was barely larger than the active U.S. Army and was allowed no reserve forces at all. Germany's rearmament began in earnest only a little sooner than America's and, not having 3,000 miles of ocean to protect it, the German Army had to be able to fight as soon as hostilities began. Yet while Germany would display many shortcomings during the war, even its enemies acknowledged the professional quality of its army officers and NCOs. The Israeli and Finnish armies have used the German methods of officer/NCO training and selection with similar success, but the U.S. Army has rejected them as elitist.[20]

Since World War II, the U.S. military has abandoned its search for excellence in favor of mediocrity. Near-disaster in Korea did produce some reform, and the army that fought in Vietnam was initially much better prepared, but not for the war it was called on to fight. The limited professional education of its leaders left them with a poor understanding of the war they were in and an even poorer ability to explain it to their civilian overlords. Much the same has happened in Iraq and Afghanistan. More recently, the Army has dealt with military reform and excellence as if it had already occurred, describing itself to a wide-eyed Congress and public in the most embarrassing hype ("greatest military on the face of the earth," "that ever existed" and so forth). Mussolini's Italian army did much the same thing.[21]

Also, since the Second World War, the U.S. Army's focus has been far more on itself and its position in domestic politics. This was at least in part a consequence of the Cold War, in which the Army spent a lot of time preparing to fight but not actually fighting a thoroughly studied, conventional and known opponent. However, although they attracted little attention from the U.S. military, major changes in how wars are fought were already taking place.

The Real Threat:
The Rise of Fourth Generation Warfare and the New World Disorder

For the past three centuries or so, most people have lived at least nominally under the rule of a state.[22] The modern state is a European invention dating from the 16th and early 17th centuries. It differed from previous forms of government in that it was a corporate entity (an artificial "person") existing independently of tribe, city or princely house. It also claimed a monopoly on all organized violence and, until recently, it has usually been able to enforce it.[23]

Prior to the state, entities of every kind waged war. They included cities, such as Rome and Athens, and later Florence and Venice. They included tribes or tribal confederacies like those that destroyed Varus' Roman legions. Powerful families, trading organizations like the Hanseatic League and religious orders like the Knights Templar had their own armies and fought their own wars. Bands of mercenaries, such as the White Company of Hundred Years' War fame, which Sir Arthur Conan Doyle later immortalized, hired themselves out to the highest bidder.

In Europe, by the end of the Middle Ages the result was chaos. Not only did armies fight each other, they made war on the civilian population as well. Partly this was because medieval armies had no supply systems or cash, so they looted whatever they needed. Soldiers were also inclined to take revenge on those who resisted them and terrorize even those who did not, knowing that they had little to fear from any legal system.

By the end of the Thirty Years' War in 1648 Europe had had enough. The Thirty Years' War began as a Central European religious struggle between Protestants and Catholics but ended as a purely political contest. Germany in particular was devastated. Europeans wanted order, stability and security, and the Treaty of Westphalia gave it to them. It defined the nation-state as the new governing entity, and decreed that it alone would have the power to make war. All other war-making entities were illegitimate and those who fought for them would be treated not as soldiers but as outlaws. The confinement of lawful violence to states would bring the stability needed for commerce and industry to flourish, learning and science to advance, and for people to feel secure for themselves and their property.

After the treaty was signed, Europe adopted the state system with remarkable speed. The new state armies quickly absorbed the mercenaries or hanged them. With

their ability to coin money, levy taxes and organize their people in a way no non-state entity could match, the nation-states soon overwhelmed their non-state competitors. Today in Europe only a handful of tiny pre-state entities, such as Monaco, Andorra and Luxemburg have survived (mainly as banking centers). From Europe the system spread throughout the planet by means of European colonization and imperial expansion. The tribal levies of Africa, the Americas and Asia were no match for the modern, professional state-supported European armies even when they were outnumbered and far from home. By the end of the 19th century, the state system had become so pervasive that few people lived, or could imagine living, under anything else.

At this point it would be well to remind ourselves that at its heart the nation-state, even today, is mostly about violence. Some modern scholars have declared that states should provide not only physical but also social and economic security. This idea was adopted by Otto von Bismarck, Germany's "iron chancellor," but this was two centuries after states had become the norm. Bismarck's social welfare system served to extend his government's domestic power.

Other states did not follow his example in a big way until after the world wars. These wars devastated most of Europe and substantial parts of Asia. Created and waged by states, they undermined public confidence in their respective states' ability to provide the security and stability they promised. Indeed, states such as Nazi Germany and the Soviet Union became as much a menace to the populations they controlled as the most desperate band of pre-1648 brigands had ever been. It was true that some states, favored by geography, superior resources and better strategy, were much more successful at protecting their people. However, the first use of the atomic bomb in 1945 introduced a weapon that no state could defend against. Thus, the primary foundation upon which the state had been built began to crumble.

The world's leading military powers had great difficulty in accepting the fact that conventional warfare between nuclear-armed nations was essentially impossible, but the massive NATO and Warsaw Pact armies that faced each other in Europe never fought. Instead, conventional warfare shifted to the "non-nuclear" parts of the world, but even there it gradually died out. The conventional wars against Iraq in 1991 and 2003 may prove to be among the last.

The reasons for the demise of conventional war go beyond the threat of nuclear weapons. The cost of training and equipping even small conventional forces has become ruinously high. Outside of the so-called "first world" countries, along with Russia, China and India, few nations can afford substantial numbers of modern weapons. Most of the world's poorer armies are now glorified police forces concerned mainly with internal security and politics. They could offer little resistance to a well-equipped invader.

Many states also suffer from the declining loyalty of their own citizens. Post-1945 attempts by many states to buy loyalty (in the Bismarckian style) have fallen short.

This has been especially true in Europe where government ministries dealing with social welfare dwarf the defense ministries. Although the middle classes are unwilling to cause trouble and risk their jobs or pensions, there is a largely unassimilated and foreign-born "under-class" in Europe and America. Barred from the mainstream economy by education, cultural and legal barriers, its members have little loyalty to the states whose welfare systems support them. Their birthrates and levels of violence and unemployment are high. Many feel they have little to lose.

Outside of Europe, North America and the rest of the "first world," the dynamic changes. National governments tend to be new and are often just continuations of the old colonial regimes. Many are kleptocracies or protection rackets, whose rulers enrich themselves by preying on their hapless subjects. Real loyalty in such nations goes to pre-state institutions like tribe, family or religion. Government is merely a source of jobs and patronage, as well as of violence and predatory tax collection.

Four Generations of Warfare

It is this environment that has given rise to the phenomenon called "Fourth Generation War" (4GW). It is the last of four generations constituting a model that describes the evolution of warfare since 1648. The first three generations are of only secondary concern to us here. First Generation War (1GW) reflected the era (ending in the late 19th century) before firearms became technically mature, when close order drill and shock action still had a place on the battlefield. Military ranks, uniforms, saluting and ceremonial drill are all 1GW holdovers.

The Second Generation of Warfare (2GW) was the result of the Industrial Revolution and of firearms technology finally reaching full maturity. The emphasis was on firepower and material superiority with victory invariably going to the "big battalions." Close centralized control (greatly facilitated by telephones and field radios and large staffs) permitted the direction and coordination of the new firepower. The U.S. military is still a 2GW force that relies heavily on its closely coordinated fires and its numerical, material and technical advantages for its success.

The German Army began to evolve Third Generation War (3GW) in 1915. It did this in order to negate the numerical and material advantages enjoyed by its enemies.[24] Also known as "maneuver warfare," 3GW emphasizes decentralization over centralization and maneuver over firepower. Armies using 3GW can defeat stronger 2GW forces by being able to react to situational changes more quickly. American military theorist John Boyd captured this concept in his OODA (Observe, Orient, Decide and Act) loop theory. He had developed it to explain the dynamics of fighter combat but found it applicable to other forms of conflict as well.[25] Under OODA loop theory every combatant observes the situation, orients himself, based on this orientation decides what to do and then does it. If his opponent can do this faster, however, his own actions become outdated and disconnected to the true situation, and his opponent's

advantage increases geometrically. The German army's deliberate sacrifice of centralized control to gain faster OODA loops produced many tactical and operational successes against numerically superior opponents. It could not, however, negate the effects of bad strategy, which created for it more enemies than even its 3GW methods could defeat. The Chinese Communists, however, used 3GW against U.S. forces in Korea with great success.[26]

The U.S. Army never adopted 3GW and remains a 2GW force. Although the defeat of 3GW German armies had required an overall numerical superiority of at least two to one, air supremacy, colossal amounts of artillery ammunition and high friendly casualties, the U.S. Army never understood the new methods well and concluded that a 2GW doctrine was good enough.[27] Even near disaster in Korea and failure in Vietnam did not lead to much introspection (the U.S. military still lays the blame for Vietnam upon everyone but itself). A 2GW doctrine was comfortable, conceptually simple and easily taught to the hastily trained "shake and bake" officers who have staffed most of our forces. They remain attractive today, but an army that will not practice at least 3GW levels of decentralization will be at an even greater disadvantage in a fourth generation environment.

Fourth Generation Warfare is in many respects the end of the road because it may mark the end of the state system. The term is often used as a euphemism for guerrilla or irregular warfare, but this is inaccurate. Guerrilla warfare as the irregular war of attrition we know today really began in 1808 while 1GW was still dominant with the uprising by the Spanish populace against Napoleon Bonaparte's invading French army. Unlike 1GW, 2GW or 3GW, 4GW is not about weapons or tactics but about who fights and why. However, who fights and why can certainly influence weapons and tactics. Fourth Generation War is what fills the power vacuum after the state loses its monopoly on violence. It is a reversion to the pre-1648 past. Non-states are fighting wars again and they are beating their state-based opponents far more often than not.[28]

Fourth generation conflicts tend to resemble guerrilla or irregular warfare, and many of the methods used to fight guerrillas still apply. However, the differences created by changes in who fights and why can be large ones. Guerrilla movements aspire to become states themselves (usually by replacing the government they are fighting against or taking part of its territory). They often call themselves states even before anyone recognizes them as such. Fourth generation movements seldom harbor ambitions in this area. Like the FARC in Columbia, for example, their real objectives might be to build a socialist Utopia in the jungle while letting the government in Bogotá (which the FARC had originally been created to overthrow) provide political cover. al-Qaida may indeed want to build a caliphate that would expel non-Muslims from Muslim lands and spread Islam around the world, but sees others, not itself, as ruling it. Chechen rebels fight Moscow for loot as well as for independence. Even when they had a government, they usually ignored it, even as they nominally fought under its

banner. Sunni, Shiite and Kurdish groups in Iraq fight each other for land, resources and influence. Some of the Kurds, who are among the United States' few friends in Iraq, also fight the Turks, who are also important U.S. allies. The Sunni, and some Shiites, also fight against the Americans, and (when paid) for them.

Though often few in number, poorly armed and unsophisticated 4GW warriors still present formidable challenges to 2GW and even 3GW opponents. As natives of the region where the war is being fought, they can easily blend with the population. They have no discreet parcels of land or cities to defend. They can neutralize the firepower advantages of a 2GW opponent by denying it targets. Their decentralization (and shorter OODA loops) can exceed even that of 3GW forces. Against foreign invaders these tactics work best of all. The invaders won't know the country, the customs or the language. If they use too much firepower, they alienate the locals, create more recruits for their enemies and dry up their indigenous sources of intelligence. Unless he can supply himself with modern (or relatively modern) heavy weapons, the 4GW warrior will not have the means to face his conventional enemies in open battle.[29] However, in this very weakness lies his strength. His foes so heavily outnumber and outgun him that their inability to destroy him makes them angry, frustrated and embarrassed. His successes make them look foolish. Their successes only make them look like oppressive bullies. In a fight between David and Goliath, who roots for Goliath? Who cheers for the Sheriff of Nottingham over Robin Hood? The 4GW warrior can win just by surviving. Against a foreign 2GW or 3GW opponent it's not a hard job because he can usually decide when, where and how often he fights, thereby regulating his losses. He wears down his nation-state enemies until mounting casualties undermine their morale and political support or the expense bankrupts their treasury.

Erosion of the state system does not just come from the lower social classes and from people whose attachment to the state system was never very strong to begin with. The world's elite, its leading politicians, bureaucrats, bankers and businessmen are quietly undermining it as well. Ease of travel and communication has made these "jet-setters" very cosmopolitan. Like medieval knights and churchmen, they have begun to see themselves as a universal social class, and feel more in common with other members of this class than with their own less exalted countrymen. These elites see an international system culminating in a world government (that they would control, of course) replacing the nation-state as the future provider of stability and security. A world government, reason the elites, would end war because there would be no other government able to fight against it. By imposing a single set of rules and standards it would also ensure fairness. By redistributing wealth, it would overcome poverty and oppression, protect the environment and impose an enlightened version of Aldous Huxley's "Brave New World."[30]

The objections to such a system should be obvious. If national governments cannot command loyalty, what chance has an international government? A world government

would be a vast freedom-destroying imperial super state run by largely unelected officials and unaccountable bureaucrats. These ruling elites would see it as a vast tax-subsidized ego trip (not unlike the European Union bureaucrats do), in which the popular will would never be allowed to override the wisdom of their benevolent rulers. Those outside the government (especially in the Third World where the state system is weakest) would see it as a predatory foreign oppressor and, because the international elites tend to be militantly secular, an affront to their religion. Resistance to this super state would pop up everywhere. Everyone would either be feeding off the government or trying to usurp, overthrow or hide from it.

Most of the world's revolutions, notably those of France and Russia, were started by elites who thought they could control the outcome. They soon found out otherwise and many were devoured by the same beasts they had un-caged. Though a world government would probably fail, the chaos that followed its demise would likely destroy much of what remained of the state system. Whether this would eventually lead to anything better is hard to say, but the French and Russian experiences are not encouraging.

The U.S. Military's Response to the New World Disorder

The U.S. military's response to these trends has been an across-the-board resistance to change. It defends its Cold War era weapons and force structure by insisting that an ability to defeat conventional enemies includes the ability to defeat all others, be they fourth generation or otherwise.[31] Even now in the press we read that many in the military begrudge even minor changes to improve the Army's effectiveness against irregular warfare adversaries, because they threaten our "conventional superiority."[32] Advocates of this position even cite Israel's Lebanese fiasco (against a 4GW enemy with the firepower to engage Israeli forces head-on) as evidence of the vital importance of maintaining conventional capabilities.[33] However, no one seems to consider that although the United States has won (or at least been on the winning side of) most of its conventional wars, it has not won an unconventional conflict in nearly 100 years.[34]

The 40-year "Mexican standoff" that characterized the Cold War allowed the U.S. military to focus its war preparations on a single adversary. Except for its disquieting Korean and Vietnam interludes, the U.S. military lived in an intellectually comfortable world of stability and predictability that enabled it to focus its attention on itself. By the time the Soviet Union collapsed, this Cold War status quo had made our military and the industries supporting it highly resistant to change. Change however has come far too rapidly and dramatically for a rigid and internally focused U.S. military to keep up with.

At first perplexed about what to do in a "new world order" (not so very orderly without the Soviet Union), the U.S. military soon found comfort in its ephemeral success in Operation Desert Storm. This seemed to validate the status quo and caused

it to spend most of the 1990s in fanciful struggles to justify its Cold War force structure, albeit in an environment where such forces were rapidly losing their relevance. However, status quo advocates point out that the U.S. military must maintain an ability to intervene in the world's trouble spots not only to protect American interests but also to ensure global stability. This, they argue, requires conventional forces as well as the "strategic lift" assets (cargo aircraft, amphibious ships, etc.) needed to get them where they need to go. They also argue that the president requires authority to intervene as he chooses, unfettered by constitutional limits. Hence they applaud the de facto abolition of the militia and the placing of all U.S. military forces under the president's personal control.

But does overseas intervention really work? Officially, our military policy in the world wars and the Cold War were aimed at countering power imbalances in Europe, caused by the rise of first Germany and then the Soviet Union. In fact, these power imbalances, though real, were actually in large measure the products of U.S. meddling. Before the United States entered World War I, the military balance in Europe was just fine. To prove it, the Allies and Central Powers had been beating each other bloody for more than two years with neither side able to gain any advantage. Instead of preserving this balance by brokering a peace, the United States decided to upset it by entering the war on the side of the Allies. This gave the Allies (mainly Britain, France and Italy) a victory that produced the breakup of the Austro-Hungarian Empire, the rise of the Nazi Party in Germany and the Bolshevik takeover of Russia (turning it into the Soviet Union). The European power balance did not stabilize until the Soviet Union fell some 70 years later. Thus, through most of the 20th century, the United States found itself always launching new interventions in order to contain the effects of previous interventions.

Nevertheless, after 1990 and much more so after Sept. 11, the United States began to openly espouse the idea that its own survival and well-being depended on the political and economic stability not just of Europe but the whole world. It saw instability anywhere as a danger with rippling effects breeding existential threats such as nuclear-armed international terrorists.

The sudden fall of Soviet power shattered the simple bipolar orientation that conditioned American strategy and thinking for two generations. It unleashed a muddle of till then suppressed nationalist, ethnic, religious and criminal conflicts. These have produced 4GW conflicts that defy the generalized logic of the Cold War. We now live in a kind of looking glass world in which former allies became enemies and some former enemies became more like allies.[35] However, the looking glass analogy begins to fail when we remember that many of the former friends turned enemies are not actually states or even political movements trying to become states. Earlier, they would hardly merit U.S. attention, but now the United States fights wars with them and finds them much harder to defeat than it had ever imagined.

The Defense Budget and Military Procurement

The current financial state of the Defense Department has its roots in the Cold War. While budgets and the intensity of Cold War politics have waxed and waned between 1950 and 1990, a stable consensus about the Cold War threat produced what amounted to a permanent semi-mobilization. This has evolved a domestic political economy in support of the military that became a vast spider web of defense contractors, politicians, Defense Department bureaucrats (both uniformed and civilian), and a wide array of publicists, lobbyists, academics and journalists. Today, this web of influence has gone well beyond the military-industrial complex that President Dwight D. Eisenhower warned about in his farewell address on Jan. 17, 1961. He had originally described it as a military-industrial-congressional complex (MICC).[36]

Over time, the MICC has increasingly isolated itself from the larger American economy. Naturally, many of the goods that the defense industry produces are irrelevant or illegal in a commercial economy. The market for them consists of only one buyer, but that buyer is a vast entity with supposedly unlimited resources, many stakeholders and a great susceptibility to influences that would not exist in any competitive market economy. This has produced a set of dynamics that has led to an accelerating rate of growth in the technological complexity of weapons as well as in the cost of buying and maintaining them.

Inside these dynamics, however, is a less obvious habitual pattern of bureaucratic behavior made up of deeply entrenched, politically motivated modes of conduct. These modes of conduct, sometimes called Defense Power Games, can be grouped loosely into two complementary bureaucratic strategies: *front-loading* and *political engineering*, which are further discussed in chapters 10 and 11.

Front-loading is the practice of getting a program accepted by downplaying costs and/or exaggerating benefits. Political engineering is the art of quickly building a support network of vested interests to lock in a front-loaded decision before its true costs or performance become apparent. Together, these gaming strategies work like a bait-and-switch operation, creating a pattern of chronic over-commitment. Readers interested in more detailed descriptions of these strategies can download *Defense Power Games* from the World Wide Web.[37]

While the corresponding effects of these power games are apparent in many types of policy- making,[38] they are most evident in the development and procurement of new high-tech weapons. In this case, the most obvious front-loading strategy is the "buy-in," a deliberate low-balling of a cost estimate by a contractor to win a competition, or by a government sponsor to get a program approved, or, more often, both. Whereas front-loading relies on stealth to get the game going, effective political engineering must be palpable and overt. The most common political-engineering strategy in weapons procurement is the art of building a political safety net by spreading subcontracts, dollars, jobs and profits to as many congressional districts as possible before the

consequences of the buy-in (i.e., the inevitable cost growth) are felt.[39]

The front-loading and political-engineering gaming strategies have several pernicious consequences. First, they pack the defense budget with weapons programs more appropriate to the economic needs of the contractors than to the military needs of the nation. Second, they have subtle biases designed to increase weapon-system cost and complexity. "Complexity" can be defined as a subjective quality of the "whole" relating the number and arrangement of its "parts" and to one's ability to comprehend the "whole." It follows that increasing the complexity of anything makes it less comprehensible. Therefore, the more complex a system is, the easier it becomes to front-load a decision to build it. The greater variety of parts that complex systems require increases the need for subcontractors, thereby making it easier to set up political-engineering operations. Finally, the inward focus of these gaming strategies corrupts decision-making by debasing intellectual rigor and increasing cynicism among those involved.[40]

In addition to packing the budget with too many high-cost programs, defense power games create a powerful structural asymmetry wherein unit costs always grow faster than budgets, even when budgets increase rapidly, as they did in the 1980s. As the cost of the "parts" grows faster than the budget for the "whole," compound interest kicks in to make deteriorating trends inevitable. These trends include shrinking forces, aging weapons, reduced readiness, and short-term decision-making to address an endless stream of funding crises.[41]

Although the increasing complexity of weapons and the accompanying cost growth have been the norm since the mid-1950s, these mutually reinforcing trends accelerated during the 1970s and 1980s with the development and fielding of a new generation of post-Vietnam Cold War weapons. Most of these weapons cost far more to procure *and* operate than the weapons they replaced.[42] An even more expensive generation of Cold War–inspired replacement weapons entered research and development in the late 1980s and early 1990s as the Cold War ended and budget reductions began to take effect.[43] The coincidence of tightening budgets with a long-range plan to modernize with an even more costly generation of weapons set the stage for a budget crisis in the late 1990s.[44] America's combat forces shrank faster than their budgets, and inflation-adjusted spending per unit of combat power increased.[45]

As each new generation of weapons enters procurement, the operating costs of existing weapons increase as they age. This in turn eats up the procurement dollars needed to pay for their much more expensive replacements. The predictable result was what former Undersecretary of Defense Jacques Gansler called the "Defense Death Spiral."[46] Its symptoms are declining rates of modernization, aging forces, low readiness and plummeting morale. It is fed by a cacophony of cries for long-term increases in the defense budget. Added to the costs of our wars in Iraq and Afghanistan and our overseas network of over 700 military bases, this has placed the Defense Department

on a pathway leading to a domestic political tug-of-war over fiscal resources with Social Security, Medicare and the imperative need to shore up a collapsing dollar.

It was no surprise that the combination of relatively modest budget declines accompanying the end of the Cold War and rapidly increasing unit cost overwhelmed the "savings" from force-structure reductions and reinforced each other to create an "under-funding" crisis by the summer of 2000. The Afghan and Iraq wars, coupled with continued "peacekeeping" and "nation building" in support of the war on terror, have since greatly exacerbated this situation.

The continued acceleration in the growth of complexity is consistent with two conclusions about the roots of paralysis. First, the focus of the MICC is entirely inward. It ignores external threats as it makes the decisions that deform our military. Second, the MICC promotes its own welfare (in the form of using the war on terror, Afghanistan and Iraq to justify business as usual) at the expense of the general welfare.[47]

Why the "Death Spiral" Will Continue

The internal factors described above lock decision-makers into a daily struggle to keep the defense ship financially afloat. They punctuate this struggle with perceived or contrived crises that call for higher budgets.[48] This infuses the defense budget with one bailout after another, and thus saps the political capital and resources needed to change the ship's course.

In the 1990s our military institutions responded to the end of the Cold War with no more than a comfortable modification of past practices. However, they did take advantage of the information revolution to repackage their shopworn ideas into glitzy computerized "visions" – virtual realities – of the threats that would justify their budgets, as opposed to the ones they might actually encounter. It is no coincidence that the "vision-based" future worlds of the 1990s, e.g., Joint Vision 2010 or the so-called future Revolution in Military Affairs (RMA), also protected the *same* internal commercial and political interests creating the cost growth and political rigidity that have been locking the military into its death spiral all along.

While the MICC remains mired in its fanciful struggle to preserve its dying Cold War lifestyle, the real world has moved on. This had led to a widening web of challenges including:

- an outdated 2GW attritional American style of war,
- emerging requirements to address new threats posed by 4GW,
- the unaffordable and growing cost of continuing Cold War business as usual, and
- the political threat of a standing military responsive only to the executive branch.

Until the American military finds a way to escape from its past there seems little chance that it can effectively deal with the challenges of its future.

Some believe that the military can spend its way out of its death spiral. We believe that this makes as much sense as curing a hangover by continuing to drink. Instead, we believe that fundamental change is urgently needed in all three of the basic elements of military power:

1. *People*: recruiting, retention, personnel management, unit cohesion, empowerment and character development.

2. *Ideas*: military theory, doctrine, education, training and organization.

3. *Hardware*: weapons, supplies, infrastructure and technology – at a sustainable cost.

If we can get the changes we need in the first two elements the third should take care of itself.

The purpose of this book is to stimulate debate and identify reforms that can place our military on a healthier pathway to the future. It is not intended to be comprehensive. Most of the essays focus on types of changes needed in the first two categories, and, for reasons of space, personal experience and continuity of exposition, tend to concentrate on ground and air forces. The aim of this introductory essay is to set the stage by describing the nature of change in large institutions and why fundamental reforms are needed for all services in the three categories listed above.

How to Change

What should the American people expect from Congress and the military as the United States begins to adapt to this changing face of warfare?

Military theorist John Boyd taught that effective military systems prioritize the components of which they are composed: people, ideas and hardware – in that order. He responded to the U.S. Army's emphasis on synchronization – the methodical timing of several events in time and space – with the comment, "you can only synchronize watches, not people." He emphasized that "people fight wars, not machines, and they use their minds" and that military systems that give people top priority adapt to changes in warfare more quickly than those that emphasize machines. Boyd defined this in testimony before Congress in April 1991: "There are three basic elements [to win wars] and in order of importance they are: People, because wars are fought by people not weapons. Strategy and tactics [ideas] because wars fought without innovational ideas become ... blood baths winnable or not. Hardware, because weapons that don't work or can't be [produced] in quantity will bring down even the best people and best ideas."

Boyd went on to describe how each aspect is interrelated:

" … our military needs to be trained in innovative tactics and strategies that will lead to quick decisive victory at minimum cost to American lives… This requires, first, an understanding of conflict. Conflict can be viewed as repeated cycles of observing-orienting-deciding-acting by both sides (and at all levels). The adversary that can move through these cycles faster gains an inestimable advantage by disrupting his enemy's ability to respond effectively… These create continuous and unpredictable change. Therefore our tactics and strategy need to be based on the idea of adapting to and shaping this change faster than the enemy."[49]

To be effective a military system must be able to incorporate these concepts into its culture.

If this is true, then why has the U.S. defense establishment failed to reform itself? Americans love to boast about their innovation, as well as their ability to adapt and overcome adversity. If the current establishment is so out of date, corrupt and slow to adapt to the 21st century, why does no one do anything about it except a few "reformers?"

This book will address changes needed in the defense establishment. By the "establishment" we mean more than just its fighting component. A military machine as large as that of the United States consists of many interrelated institutions. To place even a rifleman on the battlefield, all must work in harmony to ensure that he is well-trained and led, and both physically and mentally equipped for the mission confronting him.

Like an effective combined-arms team, the authors of the following essays represent all branches of the military services, as well as Department of the Defense, its acquisition community and Congress. Some of the authors are retired service members, while others are government civilians. Their motivation is simple. They are patriotic individuals who believe America will lose its next war unless their ideas are adopted by a national security establishment badly in need of change.

ENDNOTES

1   U.S. Department of Defense, *Dictionary of Military and Associated Terms*, Joint Publication 1-02 (JP 1-02), (Washington, D.C.) http://www.dtic.mil/doctrine/jel/doddict/acronym_index.html

2   For a further discussion of the issue of generals giving poor advice to politicians see Lawrence J. Korb "Military Leaders Make Weak Advisors," *The Washington Independent*, August 4, 2008, http://washingtonindependent.com

3   For a history of the New Model Army see Ian Gentles, *The New Model Army – in England, Ireland and Scotland, 1645-53* (Oxford: Blackwell Press, 1994).

4   For brief accounts of this period see Michael Barthrop, *The Armies of Britain 1485-1980* (London: National Army Museum, 1980) and Charles Messenger, History of the British Army (Novato, CA: Presidio Press, 1986).

5   Emory Upton, *The Military Policy 0f the United States* (U.S. War Department, Washington, D.C. 1912), 68-70.

6   Congress did increase the U.S. Army to 55,000 for the post-Civil War occupation of the South, but cut it back to 30,000 in 1870 and then to 25,000 in 1876; official tables of authorized Army strength and organization appear in U.S. Army *Registers* for 1860-1898 (all published Washington D.C. by the Adjutant General). See also Russell F. Weigley, *History of the United States Army*, (Bloomington, IN: Indiana University Press, 1984). For a history of the re-founding of the U.S. Navy see Ian W. Toll, *Six Frigates; The Epic Founding of the U. S. Navy* (New York: W.W. Norton Co., 2006).

7   A reprint of the militia acts of 1792 is available at http://www.constitution.org/mil/mil_act_1792. htm. See also Upton, *Military Policy of the United States*, 54-55. For the size of the organized militia see U.S. Army *Register* and Graham A. Cosmas, *An Army for Empire* (University of Missouri Press, 1971).

8   For examples of this see Emory Upton, *The Armies of Asia and Europe* (New York: Greenwood Press) and *The Military Policy of the United States*, op cit, 61-62 and 227-28.

9   John C. Calhoun, *Reports and Public Letters of John C. Calhoun*, vol. 5 (New York: D. Appleton, 1855), 84.

10 These were the Mexican War and the War of 1812. Much of the latter was actually fought on U.S. territory. The intermittent scuffles with the Barbary pirates in the Mediterranean and with French privateers in the Caribbean, though they got a lot of press, only involved our (at the time) very small navy in its primary role of trade protection.

11 See Upton, *Military Policy of the United States* op cit. See also Russell F. Weigley, *History of the United States Army* (Bloomington, IN: Indiana University Press, 1984).

12 Weigly, 92-110; see also Graham A. Cosmas, *An Army for Empire* (University of Missouri Press, 1971).; Leonard L. Lerwill et al, *The Personnel Replacement System in the United States Army* (1954; repr., Washington, D.C.: U.S. Army Center for Military History, 1982, 1988).

13 See 10 U.S. Code Section 311

14 Ibid

15 For further discussion of this point see Vandergriff, *Path to Victory.*

16 He had already invaded Mexico (twice), Cuba, Haiti, the Dominican Republic and Nicaragua, all in his first term.

17 "Report of the Secretary of War" for fiscal year 1925-26, 192-240; this contained the latest revisions of American Expeditionary Force battle casualty figures. See also Leonard P. Ayres, *The War With Germany: A Statistical Summary* (Washington, D.C.: U.S. Government Printing Office, 1919), 113-130.; and Lerwill, 213-216. John Mosier in his recent and excellent book, *The Myth of the Great War* (New York: Harper-Collins, 2001) disputes many of these figures. He notes (pp. 12 and 341) that an actual count of AEF war graves shows that some 85,252 American soldiers and Marines are buried in France, though not all of these necessarily died in battle. However, he also cites (p. 365, fn 4) correspondence in the congressional archives concerning the dissatisfaction of key officers with the casualty statistics published by Colonel Ayres, the War Department's chief statistician. It also reveals a War Department insistence on manipulating casualty figures, presumably to protect the reputations of senior officers.

18 Prior to D-Day on June 6, 1944, U.S. forces had been engaged only in limited numbers and in peripheral theater, but the outcome of the war had been largely determined by then. For details of the U.S. Army's World War II mobilization see Shelby L. Stanton, *World War II Order of Battle*,

(New York: Galahad Books, 1986).

19 For the details see Van Creveld.

20 The Finnish army officer corps in 1939 was largely German trained. Many of its senior members had served in the German army's 27th (Finnish) Jaeger Battalion during World War I. Despite its aversion to Nazism, the Israeli army in its early years adopted German military doctrine, even to the extent of using the same map symbols.

21 A good example of military hype is the recent television miniseries "Band of Brothers." Regarding the Italians, see Col. G. B. Jarrett, *West of Alamein* (Northridge, CA: Sentry Books, 1971) for some amusing anecdotes. For background see editors Alan R. Millett and Williamson Murray, *Military Effectiveness Vol. III: The Second World War* (Boston, MA: Allen & Unwin, 1988), 170-72.

22 The Hapsburg Empire might be considered an exception to this, but the empire itself was still a state (if not a nation-state) at least as far as foreign policy was concerned. Its constituent kingdoms can be considered nation- states in most other respects as well.

23 In the non-European Third World nation-states have been much more recently and much less firmly established than elsewhere. In more remote areas, like Afghanistan, states have been much less successful in establishing monopolies on organized violence. However, on paper at least, nearly everyone belongs to a nation-state.

24 For an account of the German army's conversion to 3GW see Bruce I. Gudmundsson, *Stormtroop Tactics* (Westport, CT: Praeger Publishers, 1991).

25 For a biography of Colonel John Boyd and a discussion of his OODA Loop see Robert Coram, *Boyd, the Fighter Pilot Who Changed the Art of War* (New York: Back Bay Books, 2002).

26 The best account of Chinese 3GW success in Korea is Roy E. Appleman, *Disaster in Korea* (College Station, TX: Texas A&M University Press, 1989).

27 For a classic study that compares a 3GW army with a 2GW army see Martin van Creveld, *Fighting Power, German and US Army Performance, 1939-1945* (Westport, CT: Greenwood Press, 1974).

28 Readers can find a compendium of articles on 4GW on the Internet at "Defense and the National Interest," http://www.d-n-i.net/FCS_Folder/fourth_generation_warfare.htm

29 Hezbollah holding off the Israeli army in southern Lebanon in 2006 and Chechen irregulars defeating the Russian army in Grozny in 1995 are proof that 4GW irregulars can take on conventional forces if they are properly equipped. However, these situations are still exceptional.

30 *Brave New World* was copyrighted in 1932 and 1946. One of many editions published since then is Aldous Huxley, *Brave New World* (New York: Harper-Collins, 1998).

31 For an Army doctrinal reference see U.S. Army FM 3-0, Operations (Washington, D.C.: Headquarters, Department of the Army, February 2008).; H. R. McMaster points out in his article, On War; Lessons to be Learned, published online in Survival 50 (February 2008) that the U.S. military sees conventional war as the way it prefers to fight (so it can take advantage of its material superiority and vastly greater firepower) and that this preference is relevant to enemy action, see: http://www.informaworld.com/smpp/content?content=10.1080/00396330801899439

32 For an example, see Gian P. Gentile, "Misreading the Surge Threatens U.S. Army's Conventional Capabilities," *World Politics Review*, March 4, 2008, www.worldpoliticsreview.com/article.aspx?id=1715. The article says that U.S. forces had been successfully practicing counterinsurgency "by the book" and doing so successfully since 2004. If the statistics that the U.S. government has been releasing to the public have any validity, this conclusion is highly questionable. No one did counterinsurgency in Iraq by "the book." No one even read "the book" and the results showed it. Through the first quarter of 2007 (after the "surge" was well under way) the situation in Iraq steadily deteriorated by nearly every conceivable measurement. The "greatest military the world has ever seen" insisted on fighting as if this were a conventional war. Any American soldier could justify killing any Iraqi simply by declaring that he "felt threatened." Crowded urban areas were

heavily bombed or shelled without regard to civilian casualties so that fewer Americans would be placed at risk. Indeed, at the time of this writing the use of air strikes by U.S. forces in both Iraq and Afghanistan has greatly increased, despite its indiscriminate nature and the harm it causes to the civil population (see Anthony H. Cordesman, U.S. Airpower in Iraq and Afghanistan, 2004-07; Center of Strategic and International Studies, Washington, D.C., 2007, http://www.csis.org/media/csis/pubs/071213_oif-oef_airpower.pdf). Indeed, civil-military relations in general, not to mention the provision of sewage treatment, potable water and electricity still get mainly lip service. As for doctrinal and force structure change, this author as chief doctrine writer at the Marine Air Ground Task Force (MAGTF) Staff Training Program, witnessed almost none resulting from Iraq experience. New doctrinal manuals on counterinsurgency were published only recently. Though much better than our old Vietnam-era leftovers, they are poorly written and not widely read. Regarding the "surge" this brief discussion of it is a horrible simplification, but there is simply no space for anything else. According to its originally stated objective of winning a political "breathing space" in which Sunnis and Shiites could address their differences the "surge" was a total failure. In terms of lowering the overall level of national violence, the "surge" appears to have done much better. However, this appears to have been a product of political events that would have occurred even without a surge. The "ethnic cleansing" of Baghdad, largely the work of Shia militias, physically separated many combatants. The willingness of the Sunni tribes to (temporarily at least) accept weapons and bribe money to stop attacking Americans, and Moqtada al-Sadr's decision (quite possibly imposed on him by Iran) to temporarily stand down his Mahdi militia, neither the direct result of American military might (though General Petraeus did have sense enough to use bribery when he got the chance), were both key to the reduction in violence associated with the surge. One notes in passing that although most of the reinforcements associated with the surge went to Baghdad, the greatest reductions in violence occurred in Anbar province.

33 Regarding Israel's ill-fated 2006 Lebanon War, Israel used its air force as its main effort to defeat Hezbollah rather than its ground forces. The Israeli air force would have been least affected by the recent fighting in the Palestinian territories, yet it came up short, killing lots of Lebanese civilians but relatively few Hezbollah combatants. The ground assaults on Hezbollah, conducted mainly with armored and airborne troops, were costly and achieved little. Overconfidence, poor tactics and the fact that Hezbollah had managed to acquire some modern anti-armor weapons seem to have had much more to do with this than too much focus on fighting in the territories (see Reuters, "Anti-Tank Weapons Inflict Heavy Losses on Israeli Army," *Defense News*, August 10, 2006, http://www.tau.ac.il/jcss/defensenews100806.html; Efraim Inbar, "How Israel Bungled the Second Lebanon War" *Middle East Quarterly* (Summer 2007), 57-65; and the Wikipedia article on the second Lebanon war, http://en.wikipedia.org/wiki/2006_Lebanon_War

34 Exceptions to this include the War of 1812 and the Korean War, which ended as stalemates. In the two world wars others did the bulk of the fighting on land, though U.S. economic support, and naval and air forces in World War II, were essential. The last guerrilla war in which the United States was successful was the Philippine Insurrection (1899-1916). Some of the supporters of our invasion of Iraq are proclaiming victory over our irregular opponents in that country. This war has in fact become a struggle between multiple entities of which the United States is only one (albeit a powerful one). However, apart from the overthrow of Saddam Hussein (which occurred before the irregular war began), the United States has thus far accomplished none of its original objectives. Its success at bribing the Sunni insurgents (whom it was not able to defeat) and the "ethnic cleansing" of Baghdad (mainly the work of Shi's irregulars though U.S. forces did help), has certainly reduced casualties. In the end, however, all of that may do little more than allow the United States a face-saving exit. At the time of this writing (August 2008), the real winner of this conflict appears to be Iran. Apart from this the United States has succeeded against insurgencies only when it limited its participation to providing arms, money and advisors to the local counterinsurgents (as in El Salvador, Bolivia and Greece).

35 The former Soviet Union and mainland China are two examples of enemies turned friendlier. The Taliban, al-Qaida and Saddam Hussein are examples of former allies turned enemies.

36 For the final version of his speech Eisenhower removed the word "congressional." The speech he actually delivered read, in part, as follows: "Our military organization today bears little relation to that known … in peacetime, or indeed by the fighting men of World War II or Korea. Until the latest of our world conflicts, the United States had no armaments industry. American makers of plowshares could, with time and as required, make swords as well. But now we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions. Added to this, three and a half million men and women are directly engaged in the defense establishment. We annually spend on military security more than the net income of all United States corporations."

"This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence – economic, political, even spiritual – is felt in every city, every state house, every office of the federal government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society."

"In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist." (President Dwight D. Eisenhower, "Farewell Address to the Nation," January 17, 1961. *Public Papers of the Presidents: Dwight D. Eisenhower, 1960-61* (Washington, D.C.; Eisenhower Center, 1969), 103.

37 Franklin C. Spinney, Defense Power Games (Washington, D.C.: Fund for Constitutional Government, 1990); http://www.d-n-i.net/FCS_Folder/def_power_games_98.htm

38 Two excellent examples of this were how the Clinton administration persuaded Congress to support its decision to deploy peacekeepers to Bosnia, and how the Bush administration sold Congress on its proposed invasion of Iraq. The Clinton administration assured Congress that the Bosnia deployment would only last one year. Likewise, the Bush administration told Congress that the Iraq invasion would be a "cakewalk" lasting no more than a few weeks. There would be very few U.S. casualties, most Iraqis would welcome the fall of Saddam Hussein, and postwar sales of Iraqi oil would cover all the costs. However, it soon became clear that neither venture would end anytime soon, nor stay anywhere near its projected cost parameters. Worse, the Iraqi people proved totally ungrateful for the "liberation" that selfless America had so graciously given them. Some of them even had the impertinence to mount a highly effective guerrilla campaign against their "benefactors" that still continues with no end in sight. It seems hardly necessary to mention that Iraqi oil revenues never even began to cover the costs of the war, and that American casualties ran into the tens of thousands. But America had committed its prestige to both operations (and to the invasion of Afghanistan which, though it began well, has since become as much a donnybrook as Iraq). Their promoters have not ceased to argue that any decision to pull out would destroy U.S. "credibility."

Perhaps the classic example of political engineering is the current F-35 program. It ropes in not only hundreds of congressional districts but foreign allies as well. Naturally, the cost has been unbelievably front-loaded as well.

40 An example, though a few years old, amply illustrates the illogical cynicism that now permeates every defense budget debate. On Feb. 25, 2000, the Defense Department Inspector General identified $2.3 trillion of unsubstantiated accounting adjustments during his annual audit of DOD's bookkeeping system. Based on this finding, he issued yet another disclaimer of opinion saying that "DOD internal controls were not adequate to ensure that resources were properly managed and accounted for, that DOD complied with applicable laws and regulations, and that the financial statements were free of material misstatements." (http://www.d-n-i.net/FCS_Folder/budget.htm) Nevertheless, six months later, on Sept. 14, 2000, the CBO's Daniel Crippen did

not explain to the Senate Budget Committee how CBO analysts could reliably determine that there was a $50 billion per year shortfall in the Pentagon's budget, when the Pentagon's inspector general had determined that the DOD's bookkeeping system was un-auditable. See http://www.cbo.gov/showdoc.cfm?index=2399&sequence=0&from=7

41 Franklin C. Spinney, "Defense Spending Time Bomb," *Challenge: The Magazine of Economic Affairs*, (July-August 1996), 23-33. This report illustrates the general point with a case study of air force tactical fighter aviation. It shows how the long-term effects of behavior that drives up costs faster than budgets leads to smaller and older forces and continual pressure to reduce readiness. Finally, it gives the reader an idea of the magnitude of the adjustment now needed to fix the current aging crisis. See http://www.infowar.com/mil_c4i/defense.html-ssi

42 Promises of lower life cycle costs have not materialized because the increased reliance on computer diagnostics increased both the variety and quantity of depot-repairable repair parts, requiring a more sophisticated logistics management system to keep track of the growing number of individually accountable items in the supply pipeline. Moreover, by displacing a greater percentage of repairs in space and time from the point of activity, it became more difficult to determine the appropriate mix for war stockpiles. This led to an increasing dependence on wartime work-arounds, such as "cannibalization" to support peacetime operations. All this translates into more money. If, for example, one compares the M1 tank to the M60A3 it replaced, official DOD budget data indicates unit procurement costs increased by a factor of 200 percent, and operating costs per mile increased by 70 percent to 180 percent for the M1 and M1A1 respectively. A similar comparison of the F-15 to the F-4 reveals an increase of 240 percent in unit procurement costs, and a 53-percent increase in operating and support cost per flying hour. All comparisons have the effects of inflation removed and include the appropriate allocation of depot and replenishment spare costs using official service budget factors. With a few exceptions (e.g., A-10) the overwhelming majority of other weapon categories exhibited a similar pattern of cost increases.

43 Obvious examples include the F-22 fighter, F-35 fighter-bomber, V-22 tilt-rotor, Littoral Combat Ship (LCS), SSN-21, the NSSN, the Army's "Future Combat System," and the Marines' "Expeditionary Combat Vehicle."

44 In the case of tactical fighters, for example, the Air Force and Navy made deliberate decisions to rush the F-22 and F/A-18E/F into engineering and manufacturing development in 1991 and 1992 before constructing a fiscally realistic plan to modernize their entire inventory of tactical fighters over the long term. These decisions led directly to the aging-readiness crises of the late 1990s and the subsequent addition of a huge and potentially unaffordable budget bow wave to pay for the required addition of more than 2900 Joint Strike Fighters during the first two decades of the 21st century. See Franklin C. Spinney, "JSF: One More Card in the House," *Proceedings* XXIV. No. 3 (Annapolis, MD: U.S. Naval Institute, September 2000), 96.

45 Comptroller data indicates that defense budgets declined by 37 percent in inflation-adjusted dollars between the Reagan peak in 1985 and the Clinton low in 1998. On the other hand, most combat forces (e.g., ships in the navy, tactical fighters in the air force, maneuver battalions in the army, nuclear platforms) declined by 40 to 50 percent.

46 *Defense Daily*, September 3, 1998.

47 James Madison, *Federalist* No. 10 (originally titled "The Same Subject Continued: The Union as a Safeguard Against Domestic Faction and Insurrection," *New York Packet*, November 23, 1787).

48 For example, the bomber gap in the early 1950s, the missile gap in 1960, the "window of vulnerability" in the late 1970s, and the inability to prosecute two major theater wars simultaneously in the late 1990s. Now, of course, there is the war on terror and the threat of a Chinese "superpower."

49 As quoted in a thesis of Maj. Jeffrey L. Cowan, U.S. Air Force, "From Air Force Fighter Pilot to Marine Corps Warfighting: Colonel John Boyd, His Theories on War, and their Unexpected Legacy" (U.S. Marine Corps Command and Staff College, 2000), 14.