CSIS

Center for Strategic and International Studies
1800 K Street N.W.
Washington, DC 20006
(202) 775-3270
Acordesman@aol.com

The Ongoing Lessons of Afghanistan:

Warfighting, Intelligence, Force Transformation, and Nation Building

Anthony H. Cordesman
Arleigh A. Burke Chair in Strategy
with Patrick Baetjer

May 6, 2004

Acknowledgments

The author would like to thank Jason Wenner for his work in helping to research and update this report.

Author's Note

This is a working draft and will be subjected to several revisions before it is published. The author welcomes criticisms, comments, and suggestions. The author would be particularly interested in any additional data related to the Afghan conflict. The author can be contacted via email at **Acordesman@aol.com**. The assistant who helped on this project may be contacted at **baetjer@yahoo.com**.

Table of Contents

I. Introduction

Historians know all too well that it is far easier to rush forward in drawing lessons from history than it is to validate them. This is even truer when the lessons must deal with something as chaotic as war. Moreover, the Afghan conflict is anything but a conventional war. It is an asymmetric war fought with radically different methods, by different sides with different goals and perceptions, and as a theater battle in a broader global struggle against terrorism. While somewhat similar conflicts have taken place in the past, even the Soviet Union's experience in Afghanistan was so different in terms of the forces on each side, the weapons used, and the alliances in the region, that it is usually difficult to make historical comparisons.[1]

The problem of drawing lessons from the Afghan conflict is further complicated by the fact the war is anything but over. The Taliban was driven from power early in the conflict, and Al Qaida lost its secure sanctuary, but far more ex-Taliban and members of Al Qaida were dispersed than have been killed or captured. The Taliban and Al Qaida's loss of power also did not mean an end to the fighting. Both soon reemerged as a threat fighting a low-level conflict in Afghanistan, and Al Qaida was able to establish new bases of operation in Eastern Afghanistan and Western Pakistan. While many of its leaders were captured, it mutated and adapted, and its affiliates increasingly demonstrated that they were capable of independent action. Rather than the "post-conflict" operations the US expected, a war against a regime rapidly mutated into a low-intensity conflict in Afghanistan and Pakistan coupled to a worldwide war against terrorism.

The US made the same crucial grand strategic mistake in Afghanistan that it later made in Iraq. It forgot that winning battles, or even a "war," is pointless without winning a peace. It failed to secure the nation while its factions and warlords were weak, and before they could fill the power vacuum left by the fall of the Taliban regime. It failed to focus on the need for economic aid and effective plans for reconstruction, and it attempted to transfer the task of nation building to its allies, NATO, and the UN. As a result, the US failed to exploit its initial victories and to reduce the massive challenges of nation building that are critical to true victory in asymmetric warfare. The US effectively failed to look beyond the initial battle to a meaningful definition of strategic goals

The end result has been a weak and often ineffective nation building effort centered on the capital in Kabul, which has led German observers to refer to the country as "Kabulstan," rather than Afghanistan. The Taliban has resurfaced in the form of a Pashtun-driven insurrection, and Al Qaida has been able to shift from "conventional" warfare to asymmetric warfare and terrorism. Furthermore, "nation building" in Afghanistan has become an activity that involves scattered fighting between various factions that once opposed the Taliban, while such factions make active efforts to use US and British forces, peacekeepers, and any other available tool to serve the interests of rival clans, tribes, ethnic groups, factions, and warlords.

While Al Qaida was tactically defeated in battle in Afghanistan, and cannot conduct military operations against the US and its allies, many of its fighters have dispersed and Western Pakistan has become a second theater of operations. While more than half of its senior officials seem to have been captured or killed, and the fate of Osama Bin Laden, Sheikh Omar and many

others remains unknown. US experts believe that new leaders have emerged to replace the old, and that Al Qaida may well have been able to recruit as many new fighters as it has lost.

Al Qaida continues to be engaged in sporadic clashes with coalition forces inside Afghanistan, and has significant numbers of fighters in Pakistan in the tribal areas of the Northwest Frontier. Equally important, Al Qaida had cells or associated elements in some 68 countries when the war in Afghanistan began. It has suffered some reversals in many of these countries, but it has scarcely been defeated and new cells and affiliates continue to emerge.

It is unclear that the US has as yet developed the combination of military tactics, armed nation building capabilities, and diplomatic skills necessary to win lasting victories even against current threats. There have been many times in the past when states using advanced technology and conventional forces announced victory over guerrilla and terrorist forces, only to see those forces adapt or reemerge as a different kind of threat. Asymmetric wars are highly adaptive and the Afghan conflict is now both regional and global in scope. It is also is an ideological struggle where Islamic extremism has increasingly come to interact with other conflicts such as the ongoing Israeli-Palestinian struggle and the US struggle to build a viable Iraqi state.

As for the broader battle on "global terrorism," it has only begun. Major Al Qaida related attacks have occurred in Bali, Saudi Arabia and Spain. Islamic extremist violence exists is countries as far away as Thailand, and major attacks have been attempted in countries as diverse as Britain and Jordan. There are at least twenty more movements that have threatened or attacked Americans in the recent past. Even if the United States can succeed in eliminating all of these current threats, there will be years of fighting still to come.

II. The Prelude to the Conflict: The US, Afghanistan, Pakistan, Al Qaida, and the Taliban

The Soviet invasion of Afghanistan in 1979 was a watershed event that heralded greater US involvement in the region. Between 1980 and 1991, the US provided the mujahadeen guerilla fighters with both money and arms through Pakistan's intelligence agency. Outside of Afghanistan, the Saudi-born Osama Bin Laden secretly founded Al Qaida in 1988. Guerillas came from Chechnya, Uzbekistan, Pakistan, and the Middle East to train and to fight the Soviets in the long, bloody protracted war. Despite the Soviets withdrawal in 1989, the mujahadeen continued to fight the Marxist government that they left in place. US assistance to these groups dwindled, leaving many Afghans with the sense that they were being abandoned. [2]

The guerillas that did not return to their country of origin or did not leave to fight in Kashmir eventually founded the Taliban ("religious students") movement in 1994 in Kandahar. Many of these fighters had attended the fundamentalist Islamic schools, or madrassas, in Pakistan. Some of the Taliban were former mercenaries hired by the Najibullah regime to provide security for a trade corridor to Pakistan.[3] Their goal was the foundation of an Islamic state in Afghanistan with strict implementation of sharia law. The Taliban were primarily ethnic Pashtuns, a fact that won them some support within the larger Pashtun community who were frustrated by the constant fighting of the Tajik and Uzbek warlords and government.[4] Pakistan provided the guerillas with extensive aid, and close contacts developed between the Pakistani intelligence service and the Taliban militias.

The Rise in the Terrorist Threat Before "9/11"

A year earlier, in 1993, the first attack on the World Trade Center revealed shadowy terrorist figures that would later play roles in various Al Qaida plots. The capture and interrogation of bombing suspect Ramzi Yousef, with the help of Pakistan, yielded information about additional terrorist suspects. Yousef had planned to blow up approximately 12 US passenger planes in Asia and had collaborated with Khalid Sheik Mohammed, the eventual architect of the September 11th attacks. Mohammed, living in Qatar at the time, went underground.

Bin Laden, following his expulsion from Saudi Arabia, sought refuge in Sudan under the protection of Hassan al Turabi. In 1996, the US sought information concerning Bin Laden's whereabouts and contacts from the Sudanese government to no avail. Sudan claimed that they offered to expel Bin Laden, but the Clinton Administration, and subsequent inquiries, could not find any evidence of such an offer. In any case, the Saudi left Sudan for Afghanistan.

Osama Bin Laden made his first public denouncement of the US in August 1996. He called for jihad, or holy war, against the US forces that were stationed in Saudi Arabia following the first Gulf War. In his eyes and in those of many Islamists, "infidel" troops based on holy land directly contravened the edicts set forth in the Koran. One month later, the Taliban captured the Afghan capital of Kabul and hung the former president and head of the secret police, Najibullah, from a tower. Initially, many Afghans rejoiced because the Najibullah regime had been both

murderous and oppressive. However, the euphoria soon dissolved as the Taliban sought to realize their goal of establishing a fundamentalist Islamic state and instituted sharia law with all of its harsh penalties and restrictions. Public executions and amputations were implemented.

1997-1998 saw a period where the US State Department sought to engage the Taliban regime in an effort to influence its behavior. During a visit by several Taliban representatives, US officials discussed narcotics activity, an end to the civil war, and human rights infractions with the delegation, but with little result. State requests to examine guerilla training camps were denied. The Taliban was recognized as the official government of Afghanistan by only the UAE, Saudi Arabia, and Pakistan despite their control of 90% of the country. Though they sought greater recognition, they were roundly rebuffed and the Afghan seat in the United Nations continued to be held by a former president, Burhanuddin Rabbani.[5]

In 1998, Bin Laden expanded his earlier call for jihad, claiming that it was the duty of all Muslims to kill Americans, be they military personnel or civilians, anytime and anywhere. After this proclamation, the US Ambassador asked the Taliban to turn him over to US authorities. The Taliban, claiming that they could not control him and that he was not a threat, declined to do so. In August, the Taliban routed Uzbek warlord Rashid Dostum's forces in Mazar-e-Sharif, consolidating much of Afghanistan under their control but massacring many Sunni civilians in the process.[6] The remaining warlords formed a loose organization, dubbed the Northern Alliance after their area of control, with the primary leader being Ahmad Shah Massoud. Massoud was largely credited as the leader most responsible for the withdrawal of Soviet forces.

Saudi Arabia managed to thwart an Al Qaida attack against US personnel using manportable missiles. Subsequent talks with Crown Prince Abdullah and the Director of Central Intelligence, George Tenet, resulted in a secret agreement between the US and the Saudis. The crown prince pledged to do all in his power to deliver Bin Laden to the US. The same year, the Clinton Administration reviewed plans to use the CIA's Afghan proxies to kidnap and eventually extradite the terrorist. The CIA, however, doubted the ability of its own Afghan allies.

In a separate private meeting in 1998, the Saudis met with Mullah Omar, the leader of the Taliban and with the Pakistani president. Omar broke a previous promise to turn Bin Laden over to the Saudis and denounced the Saudi delegation. In response, the Saudis broke off most recognition and ties with the Taliban government. The Pakistani leadership showed little interest in curtailing its support for the Afghan regime. In the US, the State Department made it clear to the Taliban that they would be held responsible for attacks originating with Bin Laden and that they would face severe consequences for failing to turn him over.

The threat posed by Bin Laden and Al Qaida became all to clear. On August 7, 1998, two simultaneous bombings at the US embassies in Tanzania and Kenya killed 250, including 12 Americans. It became apparent that Al Qaida was responsible. In response to the attack, the Clinton Administration launched cruise missile strikes into both Sudan and Afghanistan in an attempt to hamstring Al Qaida. A chemical plant believed to be manufacturing VX gas in the Sudan was hit, as was a training camp in Afghanistan where Bin Laden reportedly was visiting. The post-strike assessment concluded that the plant in Sudan had actually been a pharmaceutical plant and that Bin Laden had left the training camp two hours prior to the strikes. President

Clinton was criticized for a "knee-jerk" or "tit-for-tat" response and for hitting the plant. It was clear that both Congress and the public did not support such tactics in dealing with terrorists.

A year later, the Taliban had failed to expel Bin Laden, citing various excuses. Taliban officials quietly tried to blackmail both the UAE and the Saudis in an effort to raise money. It remains unclear whether this attempt was successful. The US officially declared the government of Afghanistan as a state sponsor of terrorism. The UN responded by hitting the regime with economic and travel sanctions. Within the Taliban, a council of the most senior leaders, including Mullah Omar, agreed to stand with Bin Laden. The Taliban leader executed less prominent members of his organization that disagreed over such a policy.

It seemed that Pakistan was softening its stance. The president suggested that the Pakistani intelligence service could try and capture Bin Laden. The Clinton Administration briefly entertained the idea of training a Pakistani unit for such a mission, but concerns over the connections between the Pakistani intelligence elements and Bin Laden, as well as the overthrow of Pakistan's president, killed the operation. Pakistan's new leader, General Musharraf, believed that the plan was destined to fail.

Debate then raged within the administration over which of two policies to follow. One proposal backed by the State Department involved the negotiated end to the Afghan civil war and the establishment of a coalition government with elements from both the Taliban and their enemies, the Northern Alliance. This would have required a massive diplomatic effort. The second policy, advocated by the CIA and the NSC, required the US to secretly back the Northern Alliance by providing it with funds and military equipment. Proponents indicated it was the best way to take on Al Qaida, where as the creation of a unity government would not address the terrorists. Critics contended that the Northern Alliance was largely unpopular and a hopeless military force. Reinforcing the need to act, Al Qaida agents rammed a skiff laden with explosives into the USS Cole while it refueled in the port of Yemen on October 12, 2000. A second skiff failed to reach its target and sank, having been overloaded with explosives. 17 US servicemen were killed and only the valiant efforts of the crew prevented the ship from sinking. Yet, as the Clinton Administration left office, a definitive plan of action was not agreed upon.

The Prelude to "9/11"

In 2000, both Pakistan and Saudi Arabia were reluctant to press the Taliban any further. The broad UN sanctions implemented that year banned arms sales to the regime, but Pakistan paid little heed. Pakistan, given its tacit cultivation of the Taliban, remained reluctant to abandon them. Intelligence operatives remained close to Taliban elements, the militant training camps in Afghanistan provided excellent free and covert training to the guerilla proxies Pakistan used in Kashmir, and Pakistan was wary of the emergence of a government favorable to India. In addition, abandoning the Taliban outright was likely to incite domestic protests or worse. President Musharraf met with and encouraged Mullah Omar to relinquish Bin Laden, but he did not threaten to suspend aid, leaving his suggestion with no teeth. Furthermore, Pakistan later supported a Taliban drive to eliminate the Northern Alliance.

As President George W. Bush took office, the policy debate seemed to focus on the size and composition of the opposition the US would back. Some on the NSC, including National Security Adviser Condoleeza Rice, opposed supporting the Northern Alliance unless Pashtun groups could be included and the level of fighting increased. Others, such as Richard Clarke, pushed for immediate assistance to Massoud, concerned that without rapid aid the alliance would fall to Taliban forces. Debate also raged as to whether the US should arm the Predator spy drone with Hellfire missiles. Advocates pointed out that the drones would be able to immediately target the Al Qaida leadership. The critics within the administration were numerous, believing that the drones were not ready and that the issue of who would control the drones was not worked out. The Predator remained unarmed.

The Taliban, however, were thrust into the greater international spotlight by their destruction of two giant Buddha statues on the cliffs of Bamiyan on March 2, 2001. The base of the statues had been used as an ammunition dump and they had repeatedly been used for target practice, but the Taliban had previously refrained from demolishing them. Standing as high as 175 feet and having existed since the fifth century, the Taliban destroyed the statues for contravening a ban on the worship of idols using tanks and rockets. Reportedly, Mullah Omar became offended when a group contacted him and asked to be allowed to restore the damaged statues. Omar supposedly became enraged that the group would spend large amounts of money to restore the statue instead of donating money to agricultural and infrastructure projects. The Ministry of Vice and Virtue undertook a larger campaign to destroy images of Buddha all across the country despite pleas from Sri Lanka, India, and Thailand.[7] The senseless destruction of the ancient artifacts drew attention to the Taliban's intolerance of everything they deemed "un-Islamic." Reports began to appear in the press about the movement's oppression of women, maiming practices, and religious police.

On September 9, 2001, Massoud, the Northern Alliance leader, former defense minister, and would-be CIA ally, was mortally wounded by suicide bombers during an interview. It remains uncertain whether the Taliban or a rival warlord sent the bombers.[8]

In the US on September 10, 2001, the Deputies meeting ended with a unanimous three-phased strategy. The timeline for the overthrow of the Taliban regime was set at approximately three years. First, the US would send a representative to Kabul to give the Taliban one last opportunity to turn over Bin Laden and expel his Al Qaida organization. Second, the US would support Afghan rebels in attacks on Taliban and Al Qaida installations while seeking to build up rebel Pashtun groups. If the first two measures failed, the US would engage in more direct action, the nature of which would be developed over time.

The Attack on the World Trace Center and the Pentagon Lead to the Afghan War

Al Qaida's largest and most successful attack on the US occurred on September 11, 2001. Between 8:48 a.m. and 10 a.m., four Al Qaida teams gained control of four separate airliners using box cutters and the threat that there was a bomb on each plane to subdue the passengers and aircraft crew. American Airlines Flight 11, United Airlines Flight 175, American Airlines Flight 77, and United Airlines Flight 93 were diverted from their original flight paths. Two

airliners were flown into the north and south towers of the World Trade Center, one crashed into the Pentagon, and the fourth crashed into a field outside of Shanksville, Pennsylvania. The target of the fourth airliner remains unknown, but it was believed to be in the Washington, D.C. area, possibly the White House. It is believed that passengers who were in cellular communication with friends and relatives learned the fate of the first three aircraft and attempted to stop the terrorists. Facing a passenger revolt and fearing that they would lose control of the airliner, it is believed that the terrorists deliberately flew the plane into the ground.

At approximately 10:30, the burning towers in New York collapsed due to a massive loss of structural integrity brought about by the two crashes. The fires at the Pentagon and in Pennsylvania had not yet been brought under control and the fires at the World Trade Center continued to burn for 99 days. The attacks resulted in the deaths of 2, 819 people, including more than 366 firefighters, police, and paramedics who had responded to the initial attack in New York and were killed when the towers fell.[9] The number of people that suffered psychological trauma, respiratory problems, and other ailments is unknown. The attacks closed the New York Stock Exchange, cost over 100,000 people their jobs, and decimated the New York emergency response services.

The financial costs were staggering. When the exchange reopened, the Dow Jones industrial average had dropped 684.81 points. New York's economy lost an estimated $105 billion. The Federal Emergency Management Agency spent over $970 million on disaster relief, and the cost of removing the debris and repairing the attack sites is well over $600 million—reconstruction continues today.[10] Yet numbers cannot quantify or describe the pain and anguish inflicted on thousands of Americans. Fully 20% of the US knew someone hurt or killed in the attacks. It was the worst attack on US soil since Pearl Harbor in 1942, and it claimed the lives of mostly civilians.

President Bush made the decision to go to war against Al Qaida, the Taliban, and more generally, terrorism, on September 11th.[11] There were, however, significant complications in immediately striking in Afghanistan. The day of the attacks, it became clear that the Pentagon lacked any on the shelf war plans for operations in Afghanistan. Secretary of Defense Donald Rumsfeld immediately ordered General Richard Meyers, the man in line for the chair of the Joint Chiefs of Staff, to develop a war plan. The initial concepts for the war were developed the night following the attacks in a fortified bunker underneath the White House.

The complications took several forms. In addition to the lack of a developed war plan, the US military, under the command of Commander in Chief (or CINC) General Tommy Franks, was not accustomed to moving at the speed with which President Bush wanted him to. The Gulf War, where forces and strike plans were built up over a period of months, was the model that the armed services continued to follow. The most immediate action Franks and General Meyers could recommend were cruise missile strikes of the largely empty terrorist training camps, a course of action taken by the Clinton Administration and derisively referred to by Bush as "pounding sand." The president refused to follow any course of action that would be perceived as weak or would have limited military value.

A second major complication was the insistence of Secretary Rumsfeld and his deputy, Paul Wolfowitz, of including Iraq in the initial war plans. Both men advocated military action against Iraq, claiming that if the US declared a war on terrorism, Saddam Hussein's regime would have to be confronted. Rumsfeld and Wolfowitz expressed confidence that the investigations that would follow the terrorist attacks would probably find evidence that the Iraqi dictator played a role. Wolfowitz pointed out that war against Iraq was "doable," meaning that the US military had prepared plans for such a conflict and he believed that the regime would easily crumble. Success in Afghanistan, particularly in the context of the failure of the Soviet forces after ten years of bloody guerilla war, seemed to be less certain. "Doable" had a greater significance as well. It was argued that the first strike against terrorism had to be a guaranteed success so as to encourage allies to assist the US and curb support for terrorism.

Secretary of State Colin Powell and the outgoing Chairman of the Joint Chiefs of Staff, Hugh Shelton, openly disagreed with attacking Iraq. There was no immediate evidence that the regime was complicit in the terrorist attacks, while it was clear that Al Qaida was in Afghanistan and was involved. Powell stressed that a large coalition of countries were willing to assist the US in Afghanistan, but that that coalition was likely to shatter should the US move against Iraq. President Bush eventually ended the debate, stating that the Iraq option would be examined in the future.

The speed of military deployment was largely resolved by the combination of CIA paramilitary teams, Special Forces, and air power. Large-scale troop deployments were ruled out. The Soviet experience had shown that large troop deployments were not effective, aroused negative local sentiment, and were vulnerable to low-intensity attacks. Director of Central Intelligence George Tenet initially proposed a combination of CIA assets and Special Forces backed up by air support on September 12. The plan involved the insertion of CIA paramilitaries into the Northern Alliance and an eventual link-up with Special Forces Teams. Financed and supplied by the CIA, working with the Special Forces, and backed up by overwhelming air support, the Northern Alliance would then advance against the Taliban and Al Qaida forces. By September 26, the first CIA paramilitary team was in Afghanistan coordinating with the Northern Alliance. The first air strikes began October 7, 2001, 26 days after the terrorists struck.

The interaction between the US, Pakistan, Afghanistan, Al Qaida, and the Taliban was characterized by frustration, the use of proxies, and the inability to convince parties to turn over Bin Laden. Following the events of September 11th, the Northern Alliance played a central role in the overthrow of the Taliban, and Saudi Arabia and Pakistan became important partners in the War on Terrorism and Operation Enduring Freedom.

II. Shaping the Battlefield: A Unique War with Unique Intangibles

A lack of hard data did not stop experts from rushing ahead to draw dramatic lessons about technology, tactics, and future wars on the basis of the major air phase of the war. It is important to understand, however, that there are problems in drawing lessons from both this phase of the Afghan conflict, the low intensity conflict that has followed, and armed nation building. All phases of the conflict reflect unique types of war fought under unique conditions, and compounded by unique political and strategic "intangibles."

The Unique Conditions of War During the "Conventional" Phase of the Conflict

At the start of the conflict, the challenge for the US and Britain was greatly increased by distance, a lack of prewar forward bases, major regional political sensitivities, Afghanistan and the surrounding region's geography, and by dealing with a dispersed enemy located in a country the size of Texas. At the same time, the challenge was reduced by a number of factors whose importance became steadily more apparent during the course of the conventional war:

- The Taliban government was deeply unpopular, if not hated, by a large percentage of Afghans, including many Pashtuns. Al Qaida was far more hated, and seen as a foreign mix of Arabs, Central Asians, Pakistanis, and others. The Afghans may be a highly nationalist people, but they saw their government and Al Qaida as "foreign" and oppressive.

- An organized and armed opposition, with extensive combat experience by Afghan standards, still existed in the country. While it was often inefficient and poorly organized, the Taliban and Al Qaida were forced to disperse their military assets over a very wide area, and often in hostile territory. Small amounts of US advisors, arms, and aid could often decisively tilt the balance in a given tactical area.

- The air defenses available to the Taliban and Al Qaida were so limited that the Afghan air force virtually did not exist, and they could not make effective use of their few remaining major surface-to-air missile units. They had little readiness or training to use anti-aircraft (AA) guns and man-portable surface-to-air missiles. This allowed the US to win near total air supremacy early in the war, and allowed US combat and support aircraft to operate freely over the battlefield with only minimal SEAD (suppression of enemy air defense) activity. The US also had freedom of action in using transport aircraft and helicopters, and could take advantage of relatively vulnerable strike platforms like the AC-130.

- The Taliban and Al Qaida were sometimes credited as having up to 125,000 men, but less than 25,000 were serious fighters, and their training was largely in light arms, artillery, and light infantry combat. It had no real beyond line of sight target capabilities, no

meaningful night vision capability, and no armored or mechanized units larger than battalion size. The largest operational element seems to have had less than 70 tanks.

- The Taliban had arisen as a largely urban movement, and had little real experience in guerrilla warfare. It was heavily dependent on Al Qaida elements and Pakistani military aid. It had come to power by defeating warlords and a Northern Alliance that had already largely defeated itself, and had relatively little experience in maintaining, sustaining, or using modern arms.

- While the Taliban and Al Qaida had comparatively few fixed assets and facilities, the ones it did have were critical to its ability to coordinate, reinforce, and support combat operations. It was heavily dependent on trucks and a small number of transport aircraft for mobility and sustainment.

- Exposed terrain, road-limited reinforcement and re-supply, the inability to shelter among the population in many areas, and the need to concentrate armor and artillery for the defense of key cities and to fight major opposition elements, meant that a great deal of the key armor, artillery, land vehicle, and communications assets of the Taliban and Al Qaida could be targeted day and night by aircraft, special operations soldiers, unmanned aerial vehicles (UAVs), joint surveillance target attack radar systems (JSTARS), and other US assets, and the lack of threat to US aircraft meant that they could linger over the area and kill on a target of opportunity basis.

- The Taliban and Al Qaida could not disperse or retreat without exposing their forces, and both US and opposition forces could kill them from a distance without the Taliban and Al Qaida being able to reply. Convoys could not move and survive. Ground forces could not stay and survive, and the Taliban could not abandon urban areas and continue to rule.

- The almost "mercantile" character of intra-Afghan fighting, and the fact that the Taliban depended heavily on elements whose loyalty was opportunistic at best, meant that the Taliban could not hold onto many force elements the moment it suffered major defeats, and that the US could outbid it in terms of rewards and power. This interacted with the ability of US airpower to strike freely over the battlefield, and the ability of US and British special operations forces to call in air and missile strikes, and operate with night vision devices and long-range reconnaissance and targeting assets, like aircraft and unmanned aerial vehicles.

- Al Qaida seems to have had great skill in making itself hated throughout the country and had to concentrate in barracks and facilities to protect itself. Its creation of various cave and training camp sanctuaries gave it some physical protection from air strikes, but also created target complexes. The fact that Al Qaida could not depend on support from the Afghan people or certain factions also tended to turn such caves and camps into the equivalent of target zones or rattraps. Moreover, they were generally so isolated that US ground troops could – in extremis – besiege or attack them without becoming involved with the Afghan people or the quarrels of various Afghan factions.

- All of these factors combined to make the impact of a comparatively few US attacks and bomber sorties uniquely effective. The US was not forced to rush in massive amounts of land based aircraft or build-up massive combat air bases in Central Asia and Pakistan. Instead, the average of 60-70 sorties of carrier-based aircraft and the average of six to eight bomber sorties per day could operate in a permissive environment where they could target at leisure, minimize collateral damage, and achieve considerable lethality and psychological impact against the Taliban and Al Qaida's comparatively limited number of heavy weapons, fixed facilities, and major depots and communication assets.

- Factional competition and warlordism created a number of problems for the US in terms of false information, competition between factions, and targeting problems. In several instances, US and local forces possessed differing visions of what an acceptable military outcome would be, with local generals negotiating surrenders that enabled Taliban and/or Al Qaida leaders, such as Mullah Mohammed Omar, to escape capture. At the same time, it made it impossible for the Taliban to concentrate on the US threat, to concentrate on controlling any one geographic or ethnic area, and to know which group(s) it could trust. The competition between factions and warlords also often made them very aggressive in attempting to split the Taliban in given areas, and in rushing into areas in an attempt to seize power, weapons, etc.

- In practice, the inability of US and British forces to rapidly deploy and sustain large numbers of combat troops was turned into an "advantage." US and British advisors and Special Forces could use local forces as force multipliers, allowing them to also be the primary combat force seen by Afghans. This avoided making British and US forces seem to be invaders, equivalent to the Soviet forces of the past. While some critics have said the US and/or Britain should have deployed many more ground troops much earlier, the net impact might well have been to create the impression of an invasion, provoking a broad Afghan backlash, and allowing the Taliban and Al Qaida to disperse into the countryside in at least the Pashtun areas with far more support.

- All of these factors combined to sharply lower the intensity of the fight on the ground while the Taliban and Al Qaida still had significant, organized military strength. So did the tendency of the Northern Alliance and other Afghan forces to pause and loot, rather than close in on the enemy. The opposition advance was largely one of air strikes, clashes, bargaining, and concessions, not conventional battles. In broad terms, bargaining and defections meant that this was one of the few wars won without major frontal battles.

- The US and Britain were later able to introduce significant ground forces into the theater under conditions in which the Taliban and Al Qaida had already been largely defeated, and a combination of airpower, vertical envelopment, and mobile light forces could be rapidly deployed against any remaining Taliban and Al Qaida fighters.

- The terrain advantage that the Taliban and Al Qaida might have gained through the use of caves and shelters in mountainous areas remained a potential risk, and gave Al Qaida forces some initial advantages in the fighting at Tora Bora. For instance, according to the USGS, eastern Afghanistan has an estimated 10,000 caves.[12] At the same time, any use

of such fixed defenses became something of a prison or trap. While geographic factors did provide some cover and limit US and British air mobility, it limited Taliban and Al Qaida mobility even more.

- The Taliban and Al Qaida had no helicopter and mechanized mobility of their own, lacked the air defenses to prevent vertical envelopment, lacked the sensors to extend their situational awareness beyond visual range and at night, could only shelter in caves by losing significant tactical capability, and could only exfiltrate by dispersing and abandoning their supplies and heavy weapons. It took several days for US forces to adapt to the Al Qaida use of caves and small fortified fire points and ambush areas at Tora Bora, but Al Qaida had no way to match US precision guided munitions, area ordnance, and attack helicopter fire with mortars, automatic weapons, and light surface-to-air missiles.

- Al Qaida had attempted to acquire chemical, biological, radiological, and nuclear (CBRN) weapons, but did not have such weapons in any form, much less in the kind of strength that might have affected or deterred US, British, and allied operations.

- While Al Qaida and Taliban elements could disperse after their defeats in Kabul and Khandahar, and the Al Qaida defeat at Tora Bora, this dispersal had to be so great that they lacked the ability to sustain more than minor harassment operations. Unlike other such movements that could operate like fish in a sea of friendly people, they also lacked the popular support and shelter in most areas to retreat and hide after launching raids and small attacks.

Anyone who rushes out to draw dramatic lessons about the decisive impact of technology, new tactics, or the revolution in military affairs from the initial "conventional" phase of the fighting in Afghanistan should take a hard look at this list of unique conditions as well as remember the years of low intensity conflict and continued Al Qaida terrorist activity that have followed. It is not that new technology, tactics, and training was unimportant. They allowed the US and Britain to remove the Taliban and Al Qaida from power far more quickly and with almost no casualties. At the same time, the Taliban and Al Qaida regime had many unique limitations and vulnerabilities, and it is far from clear that future opponents will have similar vulnerabilities to the same degree.

It should also be clear that the US and British forces involved could not have been nearly as successful during the "conventional" phases of the conflict if they had not been highly professional forces with very high levels of training, readiness, and sustainability. For example, they were able to rapidly project power half way around the world and sustain a broadly coordinated set of air-land operations against foes in a rugged, landlocked country with severe topographic and weather conditions. The area in which most US forces operated includes Afghanistan, some of its neighbors who cooperated with OEF by allowing the US basing and/or overflight rights, and a portion of the Indian Ocean, and is roughly six times the size of Texas.

The US and British ground forces involved could not have functioned as they did without highly specialized training and expertise in special operations, mountain warfare, and highly

mobile combat. The intelligence officers engaged could not have been as successful if the cadres involved did not have the language and area skills necessary to sustain coalition warfare. These forces have been even more critical during the low-intensity war and in nation building phases of the conflict that have followed, although their ultimate effectiveness remains to be seen.

The US Air Force, Marine Corps, and Navy air units that dominated the fighting during the "conventional" phase had an amazing safety record. They demonstrated an ability to operate in spite of much longer missions than are normal -- US carrier missions averaged more than twice the length of normal peacetime training and past combat missions. Additionally, they demonstrated equal skill in executing parts of the support effort provided by refueling; intelligence, surveillance, and reconnaissance (ISR); and support aircraft. While some fixed-wing and helicopter crashes did occur, and some were the product of high pilot workloads and fatigue, the overall performance was excellent in spite of long missions, frequent refuelings, poor weather, and difficult mountain flying conditions.[13]

It is easy to ignore such military professionalism in analyzing the lessons of the conflict and to focus on the new technology and "toys" of war. In practice, the same result could probably not have been achieved with something approaching Gulf War levels of technology, but could not possibly have been achieved without the Gulf War's extremely high level of professionalism, tactical flexibility and innovation, and use of force elements with high sustainability and readiness.

The Unique Impact of Intangibles

The US and its allies were fortunate in the way that the strategic and political intangibles affected the initial course of the war. There were political and military uncertainties whose impact US and British planners could not predict when the fighting began, but nearly all worked out in favor of the US, Britain, and the Afghan opposition:

- The sheer success and sheer brutality of the attacks on the World Trade Center and the Pentagon gave the US a major psychological and political edge. The Bush Administration used this political and psychological momentum successfully. It did so without escalating the country too far by attacking Iraq, and without allowing the war to become anti-Islamic. Britain, Europe, and NATO did the same. This mixture of a clear cause for military action, and a high initial degree of Western unity provided intangible political and diplomatic benefits that were less available even in "popular" military action in Bosnia or Kosovo.

- The Taliban and Al Qaida were truly unpopular, in most regions of Afghanistan. They could disperse in some areas in the east and southeast, but even in these regions they could not marshal widespread political and popular support.

- Al Qaida and the Taliban had important fracture lines. The Taliban seems to have been dragged into the war by the Mullah Omar's allegiance to Osama bin Laden. Many other senior Taliban officials do not seem to have wanted to get involved, and the divided nature of the Taliban made it easy for them to defect or simply disperse.

- While the Taliban did score some initial propaganda successes in the Arab and Islamic worlds, this sympathy was negligible in comparison to the sympathy given Muslims in Bosnia and Kosovo, and in comparison to the sympathy given the Afghan opposition during the Soviet invasion. It is particularly striking that this propaganda had so little effect in view of the fact that the US and Britain were slow to organize their own regional propaganda efforts, and that the US was suffering from considerable political backlash resulting from its alliance to Israel and the impact of the Second Intifada. This evidence suggests that the "clash within civilizations" or within given countries is often far more important than any "clash between civilizations."

- With relatively few exceptions, Arab and Islamic support for the Taliban and Al Qaida remained at the media and armchair level. The Taliban's propaganda effort was better prepared at the regional level than that of the US and Britain at the start of the conflict. Such propaganda played a powerful role, particularly in producing exaggerated reports of collateral damage and the number of Arab volunteers that had been recruited by the Taliban, but steadily lost its impact as the character and unpopularity of the Taliban and Al Qaida became apparent. By the time the Taliban position in Kabul collapsed, any notion that this was a war against Islam had been dissipated by a series of discoveries about how the Afghan people viewed the Taliban.[14]

- The Afghan factions fighting against the Taliban initially proved to be unusually intelligent in their opportunism, and did not turn on each other in combat or mid-victory as in the past.

- The Taliban and Al Qaida military forces proved to be even more poorly organized than the US and Britain estimated at the start of the conflict. They were slow to adapt and innovate and slow to react to their acute vulnerability to air power at a time when they still controlled much of the country and had much of their land force still intact. Their forces did not demonstrate the level of flexibility that other groups such as Hezbollah and the Viet Cong did in the past -- although both of the latter forces often suffered major defeats before they learned how to adapt their tactics.

- The psychological impact of bombing and air power is always hard to predict. Perhaps because of the overall lack of air defenses and the resulting tactical helplessness of the Taliban and Al Qaida, it seems to have had a major impact on their willingness to hold on to positions and fight.

- No one can predict whether tactical defeats will produce a sudden, uncontrollable, catalytic process of collapse. This is always a possibility, it is rarely a probability, and it is never a certainty. In this case, however, a combination of the military and political factors discussed earlier turned what seemed likely to be a much longer campaign into a relatively short one.

- The Taliban and Al Qaida attempted to defend themselves, initially in areas where they were both unpopular and were highly dependent on motor vehicle movement along a few easily targetable roads. Not only did the terrain and limited infrastructure restrict the

Taliban and Al Qaida options, but it also helped "channel" US ISR efforts. There were only a few built up areas to monitor, few roads, and few points of contact between the Taliban, Al Qaida, and the Northern Alliance. This permitted optimum use of ISR platforms.

- Ethnic divisions, the limited number of Taliban and Al Qaida forces, and their reliance on cities made it impossible for them to hold out long enough to exploit the Afghan winter and would have made it difficult for them to operate in the most affected areas even if they had. In any case, winter did not come early or have a major impact in most areas of operations.

- Although the Taliban and Al Qaida attempted to shelter in urban areas and use the population as cover, they were still forced to locate in compounds and in targetable areas where collateral damage could be limited. As time went on, the Arab, Islamic, and European focus on collateral damage also became progressively less strident as the limited impact of US air and missile strikes became apparent, along with the realization of most Afghans' hostility toward the Taliban and Al Qaida in spite of the US attacks.

- The US was able to, and did stand aside from any priority to broaden the war and fight on more than one front. No major links emerged between Al Qaida and active support from any other country – Iraq in particular. No major follow-up attacks complicated US overseas operations, and the Anthrax attacks in the US did not challenge US capabilities for homeland defense. What might have become a far more serious multi-front war remained a single front conflict. In retrospect, broadening the war to include Iraq does not seem like it would have been a good idea and certainly is not a lesson of the conflict.

- Internal Afghan conflicts have a unique culture in which various sides and factions routinely bargain, change sides, or simply avoid fighting. Instead of fanatic opponents, or even normal loyalties, the Taliban forces often initiated bargaining the moment they came under serious pressure, and then changed sides or dispersed. This made it extremely difficult to contain and defeat the Taliban and Al Qaida forces in detail, but it also made it extremely difficult for their leaders to force any coherent or enduring level of military action.

- The leadership of Pakistan responded quickly and favorably to US initiatives and was able to exercise good control over Pakistani Islamic extremists.

- The Central Asian states were willing to support US and British operations.

- Russia and China proved to be highly supportive, and Russia allowed the US comparative freedom of action in Central Asia.

- Iran tolerated or tacitly supported the US and British operation.

- It is important to note that many of these advantages may weaken over time as allies, other countries, and possibly even the public grow weary of the low-intensity and armed nation building phases of the war.

A great deal of US, British, and allied political skill and diplomacy went into shaping the tactical successes that drove the Taliban and Al Qaida from power in Afghanistan. So did tight management of the media information campaign, and the political skill of US and British special operations forces and advisors on the ground. Success in dealing with key uncertainties and intangibles was earned, and not simply a matter of luck. Nevertheless, the US and Britain were still very lucky, and it is doubtful that the political and strategic intangibles will be as favorable in future conflicts.

As both the resurgence of Taliban and Al Qaida resistance and the Iraq War have shown, the US and Britain cannot count on such conditions and such success in dealing with intangibles again. The Iraq War has shown all too clearly that the US and its allies are unlikely to approach the favorable conditions they encountered in the Afghan conflict unless they give equal importance to diplomacy, local politics, global and regional political sensitivities, and the need to build flexible and adaptive coalitions.

Like the military professionalism and readiness discussed earlier, the political dimensions of war proved to be vital during the conventional phase of the conflict. They were not, however, sustainable. The failure of the US and Britain to develop effective nation building plans, and their unwillingness to deploy the necessary troops and aid, created a partial power vacuum inside Afghanistan and allowed the Taliban and Al Qaida to recover, along with various warlords and rival factions. The way in which the US dealt with the Arab and Islamic worlds following "9/11" cost the US much of the sympathy it had during the first phase of the Afghan conflict, as did the failure of the US to maintain a strong and credible effort to win an Israeli-Palestinian peace settlement. The US and British invasion of Iraq, and their failure to win broad UN and allied support, then further weakened Arab, Islamic, European, and other outside support for a major effort in Afghanistan.

Similarly, the same conditions that favored the US, Britain, and their allies in defeating the "conventional forces" of the Taliban and Al Qaida helped create favorable conditions for their dispersal and transformation into insurgent forces. Afghanistan is not a nation in the modern sense of the term, and its deep internal divisions and lack of a central government create an environment in which the remnants of the Taliban and Al Qaida can hide and rebuild. The lack of stable neighbors, capable of maintaining security throughout their territory, means Al Qaida can find sanctuaries and staging areas in countries like Pakistan. The lack of any coherent sense of nationhood, and an ideology capable of countering Islamic extremism – coupled to ethnic factors like Pashtun factionalism – make it difficult to defeat the Taliban and Al Qaida at the political and ideological level.

III. The "Conventional Phase" of the Conflict: Drawing Lessons Without Hard Data

The initial phase of the war involved a quick, air dominated campaign supported by the use of Special Forces, rangers, and intelligence units in a series of battles that rapidly overwhelmed the limited conventional capabilities of the Taliban and Al Qaida. The chronology of this phase of the battle dates from "9/11" in 2001 to the beginning of Operation Anaconda on March 1, 2002, and may be summarized as follows:

- **Sept 12** - As the country reeled from the enormity of the terrorist attacks, Secretary of Defense Donald Rumsfeld asked U.S. Central Operations Command (USCENTCOM) to prepare some "credible military options" to deal with the growing menace to national security.

- **Sept 21** – Army General Tommy Franks (Commander in Chief CENTCOM) briefed President George W. Bush on USCENTCOM's plan and its associated timelines.

- **Oct 2** - A final briefing to the President resulted in the approval of Operation ENDURING FREEDOM. *Mission: to destroy the Taliban as a haven for terrorist networks with global reach and to eliminate the Al Qaida network itself.*

- **Oct 7** - Combat operations commenced with a mix of air strikes from land-based B-1, B-2, and B-52 bombers, carrier-based F-14 and F/A-18 fighters, and Tomahawk cruise missiles launched from both U.S. and British ships and submarines. In conjunction with air strikes, USCENTCOM also initiated humanitarian airdrops of food.

- **Oct 13** - Four C-17 transport aircraft began dropping more than 68,000 rations per day into Afghanistan.

- **Nov 9** - Mazar-e Sharif was the first Afghan city to be released from the Taliban's grip.

- **Nov 11** - Taloqan was liberated from the Taliban.

- **Nov 12** - Herat and Shindand were liberated.

- **Nov 13** - Afghanistan's capital Kabul was liberated.

- **Nov 14** - Jalalabad was liberated. The day also marked the rescue of eight detainees, including two American women, who had been jailed by the Taliban for preaching Christianity.

- **Nov 15** - The Coalition Joint Forces Land Component Command (CJFLCC) assumed responsibility for land operations within USCENTCOM's area of responsibility, including tactical control of all coalition and joint land forces.

- **Nov 25** - Mike Spann became the first American hostile fire casualty of Operation ENDURING FREEDOM. A Central Intelligence Agency operative, Spann was interviewing prisoners in Konduz when the inadequately disarmed prisoners rioted. "American Taliban" John Walker Lindh was captured following the uprising.

- **Nov 25** - U.S. Marines of Task Force 58 seized Objective Rhino, a desert airstrip south of Qandahar, and established a forward operating base (FOB) which was eventually augmented by Coalition forces.

- **Nov 26** - Konduz, the last Taliban stronghold in northern Afghanistan, fell to opposition forces.

- **Nov 30** - Bagram Airfield near Kabul became a forward operating base.

- **Dec 4** - The first U.S. Army units deployed to Mazar-e Sharif.
- **Dec 5** - The outlines of an interim government were developed in a meeting held in Bonn, Germany.
- **Dec 7** - Qandahar, the last major Taliban stronghold in Afghanistan, surrendered to forces under the command of Hamid Karzai.
- **Dec 13** - Task Force 58 secured Qandahar Airport.
- **Dec 13** - With land transportation routes into Afghanistan now open, the United States ended humanitarian airdrop missions. More than 2.4 million daily rations had been delivered by air to the Afghan people during Operation ENDURING FREEDOM.
- **Dec 9** - The Friendship Bridge from Termez, Uzbekistan, was opened, allowing the delivery of relief supplies.
- **Dec 19** - Line-haul transportation of food to Afghanistan began.
- **Dec 22** - Hamid Karzai was sworn in as the prime minister of the interim government of Afghanistan. At the same time, the International Security Assistance Force (ISAF) was established in Kabul.
- **2002**
- **Jan 3** - ISAF consisted of 4,500 international troops under the command of British Major General John McColl.
- **Jan 3 thru 4** - Coalition aircraft struck al Qaida leadership complex at Zawar Kili, southwest of Khowst.
- **Jan 5** - As a result of actions near Khowst, Army Sergeant First Class Nathan Ross Chapman becomes the first military hostile fire casualty of Operation Enduring Freedom.
- **Jan 8** – Jordanian military forces opened a state-of-the-art medical facility in Mazar-e Sharif.
- **Jan 10** - 370 Taliban and al Qaida detainees were under the control of U.S. forces in Afghanistan and at sea. The first group of these detainees was flown to the U.S. Navy base at Guantanamo, Cuba, where a special facility known as Camp X-Ray had been prepared to house the detainees.
- **Jan 25** - Ariana, the Afghan national airline, resumed operations.
- **Jan 29** - The Marines of Task Force 58 were relieved in place by elements of the Army's 101st Airborne Division (Air Assault), which became known as Task Force Rakkasan (Japanese for "parachute").
- **Feb 8** – Military forces from Spain established a hospital at Bagram Airfield.
- **Feb 28** - A United Nations' C-130 transloaded 16 metric tons of humanitarian assistance material to UN vehicles at Qandahar Airfield, marking the first UN humanitarian assistance cargo flights into Afghanistan.

The details of the operations of special forces, intelligence units, and the other elite ground forces that did so much to make effective air operations possible are not available in unclassified form, nor are the details of their work with friendly Afghan forces. It is clear, however, that they were a critical element of the battle and that airpower could not have been effective without them. It is equally clear that in many ways Afghanistan taught lessons about the coordination of airpower and special forces, and joint warfare that were critical to the role a similar mix of forces played in northern and western Iraq in 2003.

Far more data are available on the overall pattern of air operations. It is important to note, however, that the US Department of Defense, the British Ministry of Defense, and other Coalition allies have provided only limited statistics and details on the course of the Afghan war before the Taliban and Al Qaida were driven from power. Their analyses of the lessons of the war are still largely classified. There are little data on the numbers of forces involved, sorties flown, and weapons used. Most of the manpower estimates available for land battles count the total US and British forces in the area of engagement, rather than those actually engaged in fighting. Estimates of Al Qaida, Taliban, and friendly Afghan forces – and their weapons strength – are little more than guess work. The data released so far on Afghan casualties, collateral damage, weapons accuracy, and battle damage assessment is vague or self-serving to the point of being worthless.

Study teams, like the US Department of Defense's Defense Science Board and the 35-person Joint Task Force Enduring Look, did make a systematic effort to gather the data needed to draw detailed lessons from this conflict.[15] Access to such material would certainly be of great value. However, -- as was the case in Desert Storm and Desert Fox, and in other recent conflicts -- the theater commander prevented adequate teams of analysts from being on the scene during the most critical period of the fighting. This refusal to create teams of on-the-scene experts may have reduced some of the support and command burden during operations, but the resulting inability to evaluate combat activities as they proceed seriously limits the quality of US military analysis of the war. In any case, none of these studies have been released in unclassified form.

There are some useful data on the number and type of aircraft flown and air munitions, and these data do have special meaning in this war. At least in its initial phases through the destruction of the Taliban regime, air power played a critical role in each battle, in making the advances of anti-Taliban Afghan factions possible, in destroying enemy infrastructure and facilities, and in allowing a relatively small number of special operations soldiers to successfully target Taliban and Al Qaida forces in the field. After that time, the near total level of US fixed-wing air supremacy over the battlefield, coupled with the use of US attack helicopters and heliborne air mobility, made it almost impossible for significant Taliban and Al Qaida forces to concentrate and survive until they were dispersed and the fighting took the form of a persistent guerilla and low-intensity conflict.

Data on Aircraft and Munitions Use

The following data and statistics on the first year of the air effort in Afghanistan were obtained or derived from the "Year in Review: War Against Terrorism: Combat Statistics" fact sheet on the Department of Defense's Defend America web site.[16] That fact sheet does not clearly state, however, whether the sortie and munitions counts include coalition assets or only US assets, and the period involved is sometimes not defined or uncertain:

- Total number of bombs dropped: 24,000 (13,000, or approx. 54%, of which have been precision-guided)

- Total number of sorties flown: 55,150

Total fighter sorties: 2,700 (approx. 5% of all sorties)

Total bomber sorties: 1,725 (approx. 3% of all sorties)

Total tanker sorties: 13,625 (approx. 25% of all sorties)

Total cargo sorties: 28,300 (approx. 51% of all sorties)

Total other sorties: 8,800 (approx. 16% of all sorties)

- Total number of personnel transported: 217,070

- Total freight: 299,365 pounds

The Department of Defense made the following sortie data available on US air missions that occurred between the start of the campaign (October 3) and December 17, by which time the Taliban and Al Qaida were already defeated as organized military forces. These data reflect the major role air power has played over the battlefield, as well as the importance of precision-guided munitions:[17]

- The United States Air Force (USAF) had flown more than 7,100 sorties, or roughly 45-46% of all sorties flown. The US Navy (USN) had flown roughly the same number and percentage. Other nations had flown roughly 1,420 sorties, or 8-10% of the total.

- The USAF flew bomber attack missions, AC-130 gunship missions, and a limited number of F-16 and F-15E missions, while the USN flew carrier-based F-18 and F-14 strike fighter missions.

- The Air Force's F-16s functioned with much greater fuel efficiency than did its F-15s. An F-16 would use less than 50% of the fuel used by an F-15 in performing the same mission.[18] Because the demand for mid-air refueling assets exceeded the supply that was available in the Afghanistan theater, the employment of F-16s functioned as a force multiplier.[19] The F-16 does, however, have a significantly lower payload capacity than the F-15E.[20]

- The USAF and USN have dropped a total of roughly 8,500 tons of munitions, or a total of 12,000 weapons, with the USAF dropping 6,500 tons or 75% (4,600 tons or 72% of which were precision-guided) and the USN dropping 2,100 tons or 25%

- The 7,100 sorties of the USAF included 450 ISR (intelligence, surveillance, and reconnaissance) sorties (6%), 3,500 refueling or tanker sorties (49%), and 3,150 bomber and transport flights (44%.)

The Combined Air Operations Center (CAOC) developed similar data for the period between October 7 and December 23:[21]

- The US flew roughly 6,500 strike missions and dropped about 17,500 munitions on more than 120 fixed complexes and more than 400 vehicles and artillery weapons. Roughly 57% of the weapons dropped were smart weapons.

- The US Navy flew 4,900 of the 6,500 strike sorties flown, but delivered less than 30% of the ordnance.

- The US Air Force flew only 25% of the strike sorties flown, but delivered more the 70% of the ordnance that was used.

- Ten B-52s and eight B-1s were deployed at Diego Garcia - a British island dependency in the Indian Ocean that is approximately 2,500 miles from Afghanistan. From those bombers, air war commanders could rely on having approximately four B-1 sorties and five B-52 sorties each day.[22] Both planes have been able to operate effectively from there because, as bombers, they have long-range capabilities. (The B-52 is able to fly more than 8,800 miles unrefueled;[23] the B-1 has a range that is described generically on a USAF Fact Sheet as being "intercontinental, unrefueled."[24])

- Comparisons of fighters to bombers may not be "fair" in terms of airframe-to-airframe comparisons, but the issue is mission capability and not aircraft type. The fact remains that "antique" B-52s and B-1s based in Diego Garcia flew 10% of the strike missions, but delivered 11,500 of the 17,500 weapons dropped – 65% of all weapons dropped and 89% of all weapons dropped by the USAF. During the first three weeks of OEF, one-fifth of the combat sorties were flown by bomber aircraft, however, bombers delivered over three-fourths of the ordnance (considered by weight).[25] Those figures can be attributed to the facts that as bombers they possess a large payload capacity and have the ability to loiter for long periods of time in the skies over and near combat zones and when fitted with highly accurate GPS-guided JDAM bombs, the B-1s and B-52s were able to efficiently provide close air support. Air Force Chief of Staff, General John Jumper, has described the effective use of bomber aircraft in this close air support role as being transformational.[26]

- Ten B-52s delivered most of the ordinance. The majority of the bombs delivered by B-52s, however, consisted of unguided bombs. The typical bomb load for the B-52 included twelve 2,000-pound JDAMs and 27 Mk 82 unguided bombs.[27]

- The B-1 also functioned efficiently during the air campaign: B-1s flew only 4% of the combat sorties, however, they dropped approximately 2,800 JDAM bombs.[28] That is more JDAMS than those dropped by all other aircraft combined.[29] In addition to being the only US bomber that can fly at supersonic speeds, the B-1 possesses the greatest ordinance payload capacity of any bomber in the US fleet.[30] For instance, the B-1 is capable of carrying a payload of 24 910kg JDAMs, whereas the B-2 can carry 16 and B-52 can carry 12.[31] The typical armament for the B-1 was 24 2,000-pound JDAM bombs.[32] In one notable display of the B-1's ability to swiftly bring a very large amount of ordinance to bear, four B-1s delivered 96 JDAM bombs in a twenty-minute period.

- Some reports claim that the B-1's penetration capabilities were sometimes useful.[33] Other sources indicate that the B-1 has overcome its long-standing problems in electronic warfare upgrades.[34] As of June 2002, the B-1 had performed in OEF with a mission capable rate of near 90% and a weapons release rate of 95%.[35] No B-1s (or B-52s, or B-2s) were lost in combat, however, one of the eight B-1s deployed in the Afghan theater crashed into the sea in December 2001. In that incident, all crewmembers were able to successfully eject from the plane and avoided serious injury. The cause of the accident has not been determined.[36] It was the only Class A (serious) accident involving a B-1 in the last four years. Over the course of their service lifetime, B-1s have had, on average, 1.63 planes lost per 100,000 flying hours. That loss rate is higher than that of the B-52, which has a loss rate of 1.01, however, that is not surprising considering the fact that the primary purpose of the B-1 is to be prepared to fly high speed, low altitude missions.

- B-2s flew a total of twelve sorties. On the opening days of OEF, B-2s operating out of CONUS flew 70-hour missions that Col. Douglas Raaberg of the 509th Bomb Wing has described as "kicking down the door to all targets."[37] The limited use of the B-2 can be attributed to the fact that Taliban and Al Qaida air defenses were too unsophisticated to require extensive use of the extremely long-range stealth aircraft. At the outset of OEF, the B-2s were 55% mission-capable, which is close to the Air Force's goal of 60%.[38] By November (2001), that statistic had decreased to 49%. In the following June (2002), the mission capable rate was 42%.[39] The B-2 has had a history of difficulty in maintaining the desired mission capable rate that is largely attributable to difficulties faced in maintaining the B-2's stealthy characteristics.[40] Were it not for that problem, the plane would have an approximately 80% mission capable rate.[41] Some people argue that the B-2's global strike capability warrants the production of more aircraft (and Northrop has offered to sell 40 more at a price of $40 billion). Other sources point out, however, that each aircraft would still cost more than $730 million, that the availability of aircraft already in the inventory was only 31% in 2001 and 37% in 2000, and they would also note that in March 2002 cracks were discovered in the rear section of sixteen of the Air Force's 21 B-2s.[42]

- The $14,000 JDAM was used at a peak rate of roughly 3,000 per month. It achieved combat CEPS of six to ten meters, and had a standoff range of up to fifteen miles.

Table One provides detailed estimates of the number of sorties flown, and munitions used, as of December 31, 2001. There are summary reports that cover later periods, although they are vague as to definition, date, and the exact period covered.

- Roughly 18,000 weapons were dropped by early February. Of that number, roughly 10,000 were precision weapons, or 56% of the total. This compares with 35% of the 24,000 weapons dropped during the Kosovo campaign in 1999.[43]

- As of June 2002, the percentage of precision-guided weapons used increased to roughly 60%, and military officials estimated their accuracy to be roughly 90%. As of May 2002, the Navy claimed that out of all sorties flown, combat aircraft had successfully hit at least

one target 84% of the time. Additionally, the Navy estimated that roughly 90% of the munitions it has dropped were advanced or precision weapons.[44]

- Although the AC-130H Specter and AC-130U Spooky gunships present during the fighting did not deliver significant numbers of bombs and missiles, they provided extensive combat support with 105mm guns and 40mm cannon. They have an unrefueled range of some 2,200 miles and, while they are vulnerable to air defenses, they have extensive countermeasures, infrared and radar warning, and flare and chaff dispensing systems (a key reason that the gunship costs as much as $190 million versus $30 million for a C-130H II). The USAF found the aircraft's performance to be so effective that it is seeking to upgrade its existing aircraft and convert four more C-130Hs by 2005. The USAF currently has eight AC-130Hs and thirteen AC-130Us, and plans to improve their air defense, fire control, cameras and sensors, and add ammunition racks. It will acquire all-weather combat capability and ISR links to allow it to be fully integrated into the US net of other combat platforms and intelligence assets. [45]

The US has not released the full details of its use of cruise missiles. The US and Britain do seem to have fired more than 50 during the early days of the war, but the US did not draw down heavily on its stockpile because Afghanistan had comparatively few valuable fixed targets and no effective air defenses after the first few waves of US strikes.[46] US experts indicate, however, that the cruise missiles with GPS proved to be far more reliable and accurate than the earlier design that relied on radar mapping and terrain features during the Gulf War. Operational accuracies within ten meters seem to have been common. GPS also allowed the cruise missiles to home in without having to follow predictable mapping corridors when restriking targets. During the Gulf War, many cruise missiles had to fly virtually the same, predictable route in striking targets like Baghdad.

Comparisons of the Afghan Air Effort with the Gulf War and Air Campaign in Bosnia/Kosovo

It is possible to make some rough comparisons of the level of US air effort in the conventional phase of the Afghan War relative to the US effort in the Gulf War and Kosovo. These data are shown in Table Two. While there are some minor definitional problems in these data, they clearly reflect the relative level of the total air and air strike efforts, and the steady shift towards the increased use of precision weapons. At the same time, it should be noted that key factors like sortie rates are highly contingency dependent, that the target mix differed strikingly in each case, and no quantifiable data are available on trends in terms of the effectiveness of given munitions and aircraft.

US and British experts agree that the battle damage assessment data developed during the air campaign had little reliability in any case, particularly in assessing attacks against infantry dominated buildings and in assessing the effect of striking at sealing buildings, enclosures and cave. Unfortunately, the other data that have emerged on aircraft and munitions effectiveness are extremely impressionistic and even more uncertain. As the Joint Forces Command noted in its analysis of the lessons of the Iraq War, existing methods and technology are simply not capable of effectively battle damage assessment in dealing with many aspects of asymmetric war. It is

clear that airpower has a massive direct and indirect impact, but efforts to quantify many aspects of this impact are little more than glorified statistical rubbish.

Moreover, the deliberate effort to avoid estimating enemy casualties, civilian casualties, and collateral damage that is a legacy of the political backlash from the body counts of Vietnam has a created a climate where the current emphasis on "effect-based" operations takes on the character of the theater of the absurd. There is no way to conduct "effect-based" operations if key effects are deliberately ignored, and it is all too clear that the evolution of the conflict into a low-intensity battle coupled with armed nation building made the task of determining battle damage and casualties all the more difficult and even more important.

Cost Estimates for the War During the Peak of the Fighting and Cutting the Cost of Precision Strikes

Ironically, the Department of Defense has issued more cost data on the peak period of the fighting than military effectiveness data. Estimates of the cost of the war to the US alone for Operation Enduring Freedom were $3 billion in early December and $3.8 billon as of January 8, 2002. The total cost including mobilizing reserves, deploying US forces to the theater, and flying air defense missions in the US homeland was $6.4 billion. The direct costs of the war in Afghanistan included $1.94 billion to deploy and sustain US forces, including three US aircraft carrier battle groups. It also included some $1.57 billion to pay for the reserve and National Guard personnel mobilized through January 8, plus $969 million on agency support; $372 million for munitions, including some 4,600 Joint Direct Attack Munition bombs and at least 95 Tomahawk cruise missiles; $383 million to replace lost equipment; $103 million to fly C-17 humanitarian relief missions; and $45 million for flights carrying equipment and supplies for combat operations. [47]

One key feature of these costs was the fact that the JDAM – a $14,000 GPS guidance kit for conventional 1,000- and 2,000-pound bombs – both regularly achieved accuracies of six to ten meters, and came to dominate the delivery of guided weapons. This sharply lowered the cost of precision-guided and standoff missions. It indicates that the US can develop a future "high-low" munitions mix that emphasizes high and low cost precision-guided weapons, rather than high cost precision weapons and cheap dumb bombs.[48]

The Homeland Defense expenditures included $1.5 billion in pay for 63,567 reserve and National Guard personnel, $432 million for National Guard combat air patrols over the US from 26 air bases on fifteen-minute alert, $362 million for Guard and reserve lodging and travel, and $252 million for the health care costs associated with mobilization. These totals do not cover expenditures since January 8, and compare with roughly $1.7 billion as the US share of the war in Kosovo. [49]

Table One:

Aircraft Sorties Flown and Munitions Used as of December 1, 2001

Aircraft	Strike Sorties Flown
F-14	1200
F/A-18	3700
F-15E	250
F-16	470
AC-130	225
B-1	320
B-2	6
B-52	375
Total	**6546**

Munition	Air Force	Navy
CBU-87	164	
CBU-103	573	
GBU-10	13	
CBU-12	977	26
GBU-24	34	
GBU-28	6	
GBU-31v1(JDAM frag)	4083	
GBU-31v3(JDAM pen)	509	21
GBU-37 JDAM	2	
Mk-82	6344	
Mk-83		195
Mk-84	204	3963 (almost all LGB or JDAM)
BLU-82	4	
GBI-15	2	2
GBU-16		274
TLAM		74
AGM-65-G	1	
AGM-130	1	
AGM-142	2	

Source: E-mail, data attributed to William M. Arkin.

Table Two

US Airpower in Recent Regional Conflicts

	Desert Storm	Serbia/ Kosovo	Afghanistan	Iraq War**
Area of Operations in Square Miles	176,000	39,500	250,000	437,072
Length of War in Days	43	78	?	?
Total Sorties During Period Reported	118,700	37,500-38,000	29,000-38,000*	41,404
Percentage of Total Sorties Flown by US*	85	60	92	93
Offensive Strike Sorties	41,300	10,808-14,006[38]	17,500	18,695
Sorties per Day	2,800	200, climbing to 2,000	25, climbing to 200	1,100
Total Bombs Delivered*	265,000	23,000	22,000	26,096**
Precision-Guided Bombs Delivered*	20,450	8,050	12,500	16,845
Percentage of Total Munitions that are Precision-Guided	7-8%	35%	56%	68%
Percentage of Precision-Guided Weapons Delivered by US	89	80	99	97
Combat Losses	38	2	0	7

* Data based on Michael O'Hanlon and an estimate of 38,000 total sorties flown

**Data based on Lt. Gen. T. Michael Moseley, *Operation Iraqi Freedom—By the Numbers*, April 30, 2003.

Note: Significant definitional problems exist in making such counts and historical sources differ. This count is based on the work of Thomas Keaney at Johns Hopkins University and on an article authored by Michael E. O'Hanlon entitled "A Flawed Masterpiece" (Foreign Affairs, Vol. 81, No. 3, March/April 2002, p. 52). O'Hanlon evidently reports on a longer period than Keaney does.

IV. Drawing Lessons from the "Conventional Phase" of the Conflict: Driving the Taliban and Al Qaida from Power

Given this background, the lessons of the conflict fall into three major categories. The first set of lessons are those which can be drawn about the use of airpower, advanced IS&R and C4I technology, and the air-land battle against the Taliban regime and Al Qaida during the time they still were in control of Afghanistan and could mount something approaching a conventional resistance. The second set of lessons applies to the low intensity conflict, insurgency, and counterterrorism campaign that followed. The final set applies to the issues of nation building and grand strategy.

It is clear that the US and Britain did an excellent job of dealing with the first phase of the battle and in learning from their use of airpower, advanced IS&R and C4I technology, and new tactics in the air-land battle. As the following chapters show, however, they were far less prepared for the low intensity war that followed what they initially saw as victory, and for any aspect of nation building.

The Changing Nature of Joint Warfare and the Combined Arms Mix

Virtually every major recent war has shown the growing value of joint operations and of integrating land-air-sea operations in ways adapted to the needs of a given conflict. Like Kosovo, however, the Afghan conflict has shown that a combination of precision air and missile strike capability, coupled with greatly improved intelligence and targeting systems, can, in some contingencies, provide much of the heavy firepower that previously had to be provided by artillery and armor.

Part of the shift towards precision is indicated by the fact that some 6,700, of the 12,000 air weapons the US dropped by December 7, 2001, or 56% of the total, were precision-guided. Later estimates indicate that roughly 10,000 weapons were precision weapons, out of a total of 18,000 dropped by early February, or still 56%. This compares with 35% of the 24,000 weapons dropped during the Kosovo campaign in 1999.[50] As of June 2002, the percentage of precision-guided weapons used increased to roughly 60% of total munitions, and military officials estimated their accuracy to be roughly 90%.[51] It is also worth noting that the ability to correct the dispersal of unguided submunitions for wind and greatly improved navigation and targeting capabilities also made the delivery of unguided weapons far more precise than it had been in the past.

It is dangerous to over-generalize, however, since much depended in both wars on near air supremacy and the ability to engage enemy ground forces in ways that allowed them to make only limited or no use of their armor or artillery against US and allied forces – aside from targeting local allies and proxies. Nevertheless, the nature of the air-land battle seems to have evolved significantly, even in terms of the standards of a comparatively recent conflict like Kosovo.[52]

Yet, if the opponent had had more serious military capabilities, US and British land forces would have had to spend several weeks winning air superiority and carrying out the suppression of enemy air defense (SEAD) mission. They could also have added more attack helicopters and gunships to the battle, and possibly lighter and more mobile artillery and armor – although this presented equipment, lift, and mobility problems for both the Army and Marine Corps. (The Army lacks sufficient light armored vehicles (LAVs) and even all terrain vehicles (ATVs) for its special operations forces, and Marine Corps light mechanized forces are still too tied to amphibious operations and need better ability to project force via airlift.).

The US and Britain could also have added more highly trained special operations forces, forward air controllers, and experts with local language and cultural skills. Such forces obviously cannot substitute for heavy ground forces in many contingencies, but it is important to note that the Afghan war, per se, is not an argument for lighter tanks and artillery, nor for lighter and more projectable mechanized ground forces. This poses an obvious challenge in restructuring the Marine Corps for operations in the Middle East, and possibly challenges the relative roles of the Marine Corps and the Army.

Key to any joint operation is an advanced communication network, capable of transmitting data between unmanned and manned sensor aircraft, ground forces, combat aircraft, and commanders. The fighting in Afghanistan marks a step forward in the development of such a seamless communications system. However, it is important to note that the enemy in Afghanistan did not have the technological capabilities to interfere with and disable that system. Indeed, while the fighting in Afghanistan shows us that a communications network that integrates information from many different forces is feasible in a non-hostile environment, it has not proven whether such a communications network can withstand an electronic or physical assault from a more advanced foe.[53]

The Value of Strike Range in Power Projection

Aircraft range is of limited importance when forward bases are available, but the US could not initially deploy combat aircraft into bases in Central Asia and Pakistan, and had no bases available in Pakistan. The US did acquire such capabilities over time, and was able to build up major facilities in the forward area at Bagram Air Base in Afghanistan, "Ganci" Air Base near the Manas Airport in Kyrgyzstan, and in Pakistan.[54] This lack of forward basing initially limited US attack helicopter operations and meant that shorter-range aircraft like the A-10 and AV-8 were only committed after the fall of Kabul. It was a key factor that forced F-18s, F-14s, and other fighters to fly extremely long missions from carriers in the Indian Ocean and a heavy reliance on refueling as well as long-range bombers.

The fact that the US could deploy so many fighters at such long distances early in the war and refuel and maintain them over time is a considerable achievement. It is not, however, a substitute for aircraft range, and the conditions in Afghanistan showed that the ability to loiter over a target area can be equally important.

The range of many US fighters and strike fighters is, however, marginal for such missions. It could also be a problem in other areas where access to adequate basing is uncertain,

like the Persian Gulf. In some ways, US air power is still too divided into fighters, which are best suited for European and littoral operations, and long-range bombers. Afghanistan is a warning that the range and endurance of the US strike fighter fleet may be inadequate, and that the US may have left a "range gap" between strike fighter and bomber.

The conflict in Afghanistan also provided another lesson in the vital importance of mid-air refueling operations and US tanker forces. However, of the USAF's fleet of 545 KC-135 refueling aircraft, 130 were grounded as of April 2002 due to structural problems and other maintenance issues. This has led to a debate over the need to replace the aircraft even though most should still have substantial flying life. The USAF is currently examining the possibility of leasing up to 100 modified Boeing 767 aircraft to decrease the demands on refueling tankers, however, a long-term solution that reduces overall dependence on USAF refueling assets has yet to be developed. Such a solution will be necessary to ensure future US power projection capabilities, especially in conflicts where the battlefield is located far from US aircraft bases.[55]

The need for enhanced power projection capabilities may come even sooner. Disagreements over the war in Iraq, public outcries in the country's that have given the US overflight or basing rights for Afghanistan, or a general weariness may result in such countries limiting or revoking these concessions. It is important to find a solution to the lack of power projection capability.

While the stealth characteristics of the B-2 only had marginal value in this war, Afghanistan is also a warning that long-range stealth capabilities may be far more critical in the future. Enemies with advanced air defense systems are not going to let conventional fighters loiter over the battlefield or refuel. In order to refuel, F/A-18s and F-14s were forced to descend to 17,000 feet. After refueling and returning to their previous altitude, however, the aircraft had utilized almost as much fuel as had just been added to their tanks. The US may also find that not all countries will be as cooperative as Pakistan and the nations of Central Asia have been and that long-range stealth capability may be necessary to allow US air power to "intrude" through the air space of third party countries.[56]

At the same time, both the US and Britain have drawn the lesson from Afghanistan that permissive air environments, new sensor and targeting systems, and long-range precision strike systems allow older, long-range slow fliers, like the P-3 and British Nimrod, to be armed and used as delivery platforms, and could even allow tankers and transport aircraft to be reconfigured for use in strike roles. The P-3, for example, was designed for maritime surveillance and anti-submarine warfare missions, but was used as a land-based observation plane by the SEALs. The P-3 possessed data links to the Predator and E-8 and provided real time reconnaissance during Operation Anaconda and the fighting in the Shah-i-Kot Valley.[57]

Older aircraft can also be modified to assist in ISR activities, as has been evidenced by the US Navy's use of P-3 Orion maritime patrol aircraft in support of Special Operations Forces on the ground in Afghanistan. Taking advantage of the upgrades in communications, radar, and sensor capabilities made to aircraft as part of the P-3 Anti-Surface Warfare Improvement Program (AIP), the Navy used P-3s to gather ISR information, which was then transmitted directly to the Special Operations Forces on the ground. Not only could SEAL teams download

information from the P-3, but they could also upload target information and coordinates to the P-3, which in turn would transmit the information to strike aircraft.[58]

The USAF modified existing aircraft to enhance ISR by placing communications pallets onboard KC-135 tanker aircraft. These modified aircraft communicated with the CAOC in Saudi Arabia and relayed battlefield information to F-15 aircraft. According to Air Force Secretary, Dr. James G. Roche, the "smart tanker" worked incredibly well; consequently, the USAF plans on modifying 40 of its current KC-135s so that they can enhance battlefield communications further.[59]

"Closing the Sensor to Shooter Loop" to Near-Real Time: Improved Intelligence, Targeting, Precision Strike, Assessment and Re-Strike Capabilities[60]

No one can dismiss the major impact of new technologies on the conventional fighting, particularly when they were employed with new tactics and as part of new systems. According to General Tommy Franks, the US had flown an average of 200 sorties per day in Afghanistan by early February 2002, which is significantly less than the sortie rate in Operation Desert Storm of 3,000 per day. In Afghanistan, the US was, however, able to hit roughly the same number of targets per day as in Desert Storm.[61] General Franks stated that while the US needed an average of ten aircraft to take out a target in Desert Storm, a single aircraft could often take out two targets during the fighting in Afghanistan. Unofficial estimates claim that Navy aircraft experienced a 70-80% success rate in hitting designated targets.[62] There also was much greater surge capability to use precision weapons against a major array of targets. In one case, the US dropped roughly 100 JDAMs in a twenty-minute period.[63]

Those estimates almost certainly exaggerated US performance. Both the Assistant Secretary of Defense for Public Affairs and the preliminary findings of the Department of Defense's Task Force Enduring Look – the US military team examining the lessons of the war -- have cautioned that this is the case.[64] Nevertheless, it is clear that there have been major improvements in US combat performance over that in past wars - improvements made possible by a number of factors, including added reliance on precision-guided weapons and the new abilities of US forces to draw on greatly enhanced ISR capabilities.[65]

The US was able to link its air and ground forces to power ISR assets. It could provide real-time imagery (PHOTINT) and electronic intelligence (ELINT) data on the movements of enemy and friendly forces. It could cover and characterize fixed targets and cover and target mobile enemy forces with high precision in real time even as they were engaged by Afghan ground forces, from imagery satellites, U-2s, E-8 JSTARS, RC-135 Rivet Joints, E-3A AWACS, E-2s, P-3s, and UAVs, like the Global Hawk and Predator. Signals intelligence (SIGINT) also played a role, however, it was not automated in a form that allowed the same degree of instant reporting and communication. Advances in US sensors, moving target radars, and synthetic aperture radars also reduced problems associated with weather and cloud cover.

The US had the technical capability to communicate this data, which included targeting data for US bombers and strike fighters, special operations soldiers and other ground troops, and sea-launched cruise missile platforms. This allowed aircraft like the F-16, F-15, AC-130, F-18, B-1, and B-52 to not only operate with near-real time intelligence, but to retarget in flight and in some cases re-strike after damage assessment from forces on the ground.[66] At the same time, a family of new, light ground systems like the Joint Tactical Terminal used by US Special Forces and other ground forces, the components of the Integrated Broadcast Service, new laser illuminators, GPS systems, and satellite uplinks transformed tactical ISR operations in the field.[67]

The US ability to use such data to conduct precision strikes with both precision-guided weapons and area ordnance, and then, at least partially, assess damage as well as retarget and re-strike almost immediately, did involve a wide range of advances in tactics and technology. The US was able to "close the loop" in conducting air and missile strikes in near-real time. It was an impressive further development of techniques that owe their origins to the use of spotter aircraft and kill boxes in the Gulf War, and which were significantly further developed in Kosovo.[68]

A number of the tactical encounters between US and Al Qaida forces have shown that it is now possible for air power to be far more effective and responsive in the close support of missions and for precision weapons to act as a partial substitute for artillery under conditions in which the enemy does not have high quality, short-range air defenses or large numbers of heavy weapons. A combination of fixed- and rotary-wing aircraft performed such missions well during the fighting at Tora Bora. In the current of phase of the fighting, however, US military officials concede that airpower is of limited use in locating and destroying small, dispersed pockets of Al Qaida and Taliban fighters in the low insurgency conflict. Indeed, rapid "surgical" strikes by ground troops remain a more effective option for combating a dispersed enemy.[69]

"Asset Integration" and New Approaches to Land Warfare

It is equally clear that far more can be done to improve the integration of US sensors, battle management systems, strike platforms, communications, and the use of precision weapons in the future. Many of the US efforts during the Afghan conflict were improvised, relatively crude, and scarcely set the standard for the level of progress that can be achieved in "closing the loop." A number of analysts have since argued that the advances in battle management/ISR have reached the point where platforms are less important than achieving a broad fusion of battle management/ISR, and that precision strike assets that can be used to strike as effectively as possible in near-real time, regardless of the age of the launch platform.[70]

While much does depend on the sophistication of the opponent's air forces and air defense assets, stealth, and long-range stand-off munitions; the use of unmanned aerial vehicles (UAVs) and unmanned aerial combat vehicles (UACVs) offers a potential way to use such techniques even against sophisticated opponents. At the same time, land systems, like the High Mobility Artillery Rocket System, Netfires, and precision-guided artillery shells could provide land firepower capabilities with equal precision-fire capability and more mobility and ease of power projection than existing artillery systems. Though development of unmanned ground vehicles (UGVs) lags behind that of UAVs, in part because of the difficult nature of ground

navigation, UGVs could offer further enhancements to already existing sensor and weapon platforms.[71]

During the war in Afghanistan, the United States utilized robots in a combat situation for the first time.[72] US soldiers used four robots, called PackBots, to reconnoiter 26 caves, four bunkers, an ammunition cache, and a building complex.[73] The PackBots can be fitted with as many as twelve video cameras, and can also employ a grenade launcher and a 12-guage shotgun.[74] The robots move on tracks, have arms that can be employed to lift them over tall obstacles such as boulders, and are powered by two, six-pound rechargeable batteries.[75] The manufacturer of the robots, iRobot Corporation, states that the PackBot is designed to be durable enough to survive a three-meter fall onto concrete.[76] The robots are remote controlled by a man-portable computer/radio system designated the M-7, in which the operator guides the robot with a joystick.[77] The PackBot's design makes it effective at clearing mines: its height is one foot, which is tall enough to detonate trip wire booby-traps, weighs 42 pounds, which is heavy enough to detonate mines buried in the ground, and its cameras can be used to search for other booby-traps.[78] The robot systems were quickly developed and put into service over a 40-day period, four to six years ahead of schedule.[79] The cost of each PackBot is $40,000.[80]

The end result could be what some call "asset integration" and the creation of forces that combine land-air-sea systems into a near-real time mix of capabilities to "target-strike-assess-retarget-and re-strike" with an efficiency that has never been previously achieved.[81] It would extend joint warfare and combined arms to a new level.

Senior US Army officers also feel that this may be a key to force transformation for the Army. Rather than having to use a substantial number of forces to secure flank areas – forces that need heavy armor and artillery -, the Army could rely on sensors to avoid surprise and counter maneuver before the enemy could react. Air and missile power would substitute for heavy forces in many contingencies and air mobility would allow rapid maneuvering to strike at the most critical aspects of enemy ground force operations. The result could be smaller, faster, and more effective ground units that would also be much easier and faster to deploy and would require much less logistic and service support.

The Impact of UAVs and UCAVs

UAVs have become the focus of much of the attention given to technology during the Afghan conflict. The ability of UAVs, such as the Air Force RQ-4A Global Hawk, to see through clouds, detect heat on the ground, and fly at altitudes of up to 65,000 feet for roughly 30 hours provided commanders with near-real time intelligence. As of June 14, 2002, UAVs had logged 1,000 combat flight hours.[82]

However, a lack of assets has been a problem. The US possesses only limited numbers of the key UAVs involved, and those limits interact with the fact that many of the "24/7" improvements it plans to make in imagery satellites and electronic intelligence satellites have not yet been deployed.[83] The US currently plans to buy 22 more RQ-1 Predators, at least three more RQ-4 Global Hawks, and twelve Army Shadows, but is only beginning to really determine the

size of the fleet it will eventually need. A lack of military bandwidth capacity could also be a problem.[84]

There are also problems in the existing UAVs and in the ways they are used. The Predator has had considerable success. It can fly at altitudes up to 25,000 feet and can remain on station for more than 24 hours. It is equipped with electro-optical and infrared sensors, and synthetic aperture radar for all-weather and day/night coverage. Additionally, it can be modified to enable it to carry two Hellfire missiles and has a laser designator to illuminate targets. Those Predator UCAVs have deployed ordinance against targets in Afghanistan on at least four occasions, including the strike in which Muhammed Atef was killed, and was also used by the CIA in Yemen in an attack which killed Qaed Salim Sinan al-Harethi (Abu Ali), Al Qaida's top operative there.[85] The Predator has been the first real UCAV to enter US service.[86]

The Predator, nevertheless, remains a troubled system. It largely failed operational testing before the Afghan conflict, with some eight crashes in the six months before the conflict. It cannot take off in severe rain, snow, ice, or fog conditions; its imagery lacks the definition to find and characterize some types of targets; it is a slow flier (90 MPH) that operates best at 10,000 feet, which puts it within range of many forms of light anti-aircraft defense, and which has led to losses in Afghanistan and Iraq; it has awkward control systems and ergonomics; and each unit (four planes and a ground station) costs about $25 million.[87]

Since the beginning of operations in Afghanistan, two Global Hawk UAVs have crashed. While the first of these crashes was attributed to a faulty bolt, the more recent crash, which occurred in July 2002, is still under investigation. The Air Force's remaining Global Hawk UAVs have been grounded until the cause of the second crash can be determined.[88]

Evaluations of the performance of Predator and other drone aircraft in Afghanistan have been mixed. While military commanders cite the Predator's ability to "peer over the hill" and provide imagery of the landscape and layout of enemy forces in future combat zones, they also worry that forces preparing for battle may become too dependent on data from the Predators and be unprepared to handle non-visible threats. [89] In addition, the Predator, as well as other UAVs and UCAVs, have limited value when targets are disbursed within the local populace and nearly impossible to identify.

In March 2002, Predator drones provided US military officials in a variety of locations (including the air operations center in Saudi Arabia, Central Command, the Pentagon, and the CIA) with live pictures of ongoing combat operations as they evolved in Afghanistan. Though such images provided military commanders who were several thousand miles removed from the field with information and a first-hand, never-before-seen view of the battle, they also caused headaches for the commander of regular U.S. ground forces in Afghanistan who was overseeing the operation. Throughout the battles in the Shah-i-Kot region, command personnel at higher levels and those operating in other locations relayed numerous questions and much advice to the commander in the field in an attempt to contribute to the management of the battle as it unfolded. The regional commander responded by posting updates on the progress of the battle on the military's internal computer network.

Nevertheless, the episode reveals the powerful influence that live pictures from the battle zone may have on the ability of the on-site commander to determine and execute a successful battle-plan. The last thing on earth that the US field commanders need is an overcomplicated chain of command, in which officers thousands of miles away from the scene of battle provide armchair advice based on pictures rolling across a television screen. If such imagery is to be used effectively, an effective way of analyzing it and providing feedback to the commander on the ground must be developed.[90]

Military officials argue that the Predator could be a far more effective tool if commanders could communicate with the team operating it, much like they do with helicopter or fighter pilots, issuing instructions and calibrating the use of the drone so as to advance the overall goals of the mission at hand.[91]

The Predator's operational limits have also led to plans to equip it with much more lethal weapons that have stand-off range (like LOCAAS) and develop a Predator B to replace the existing Predator RQ-1. The B would increase range well over the present 740 kilometers; increase speed from 138 to 253 miles per hour; increase payload from 450 to 750 pounds; increase maximum altitude from 25,000 to 45,000 feet; and increase wingspan from 48.7 to 64 feet and length from 27 to 34 feet.[92] The US is also seeking to develop an export version for NATO allies.[93]

Another UAV, called the Dragon Eye, will be fielded in summer, 2003. The Dragon Eye is made of foam and fiberglass, weighs only five and a half pounds, and has a width of 45 inches. It is designed to be carried by backpack and to be used to conduct reconnaissance of hazardous areas. Dragon Eye employs video and infrared cameras and their images are transmitted to the operator via wireless modem. Once airborne, the Dragon Eye does not need to be manually flown as it steers itself by means of GPS. One weakness of the Dragon Eye is that its camera cannot function during moderate or heavier rain. All infantry battalions in the Marine Corps will be receiving a squadron of Dragon Eyes.[94]

Despite these limitations, UAVs and UCAVs have proven to be a worthwhile asset in Afghanistan and have reached the stage of development in which they are able to operate as "semi-autonomous sensors" and weapon platforms.

The Strengths and Weaknesses of Other Platforms

Little detail is available on the strengths and weaknesses of the Airborne Warning and Control System (AWACS), JSTARS, U-2, Rivet Joint, P-3, satellite, and other sensor platforms that ultimately did most of the work. It is clear from the FY2003 defense budget submission, however, that funds are being provided to improve virtually every system and that serious attention is being given to adding sensors to aircraft like tankers, and adding more sophisticated mixes of sensors to existing aircraft.

The idea of having a single platform that could perform the functions of the AWACS and JSTARS is also being explored. Similarly, at least some of the data links used to provide real

time retargeting data to aircraft were still relatively crude and had poor ergonomics and avionics. Additionally, air munitions were not fully optimized to use such data.

Dealing with Mobile Targets

Senior defense officials believe that the fighting in Afghanistan shows that, since the Gulf War, the US has made significant advances in addressing the problem of identifying and destroying mobile targets. During the Gulf War, the USAF and Navy unsuccessfully targeted Iraq's Scud missiles, flying 1,460 sorties that failed to destroy a single missile battery. In contrast, during the fighting in Afghanistan, the US Navy attacked 2,500 mobile targets and has claimed to have achieved a 65% hit rate.

As of June 2002, the Navy claimed that aircraft had struck 2,000 mobile targets.[95] Experts attribute this significant achievement to the use of improved precision munitions and communications technology, as well as the use of UAVs to gather target information. Air Force officials also cite the presence of special operations personnel, who could more readily identify mobile targets from the ground, as crucial to the success of the air missions over Afghanistan.

The use of satellite-guided smart bombs, which are accurate regardless of weather conditions, along with reliance on the Joint Surveillance Target Attack Radar System (JSTARS), which can track several mobile targets simultaneously, has also contributed to the increased level of success in hitting mobile targets. Based on the successful integration of ground and air forces in pursuit of mobile targets, this will be a major feature in future conflicts despite the relative lack of such operations, like "Scud hunting," that took place in Iraq. [96]

In Afghanistan, targeting data from JSTARS was fed directly to F-15E pilots, allowing them to respond quickly and strike targets before their locations changed. Though UAVs, such as the Global Hawk, were able to provide imagery of mobile targets, a means to transmit such information directly to USAF and Navy pilots has yet to be developed. Currently, UAV information is transmitted to the CAOC in Saudi Arabia where analysts determine potential targets and relay specific target coordinates to the battlefield. Military officials describe the CAOC as an essential component that has greatly enhanced US efforts in Afghanistan. As a hub of communications between unmanned and manned aircraft, it provided commanders with a complete, up-to-date picture of the battlefield.[97]

If the USAF and Navy are to further increase the percent of successful hits to mobile targets, it will be necessary to reduce the "sensor-to-shooter" time between UAVs and fighters by developing direct lines of communication between the unmanned and manned aircraft. Some steps have been taken to address this issue, as evidenced by the USAF's linking of Predator imagery directly to the cockpit of AC-130 gunships. This, in turn, has allowed the gunship crews to determine the location of targets and the features of the surrounding areas before actually arriving at the target areas. Much work, however, remains to be done.[98]

The Problem of ISR Asset Density

Afghanistan may have been a small conventional war, the low-intensity conflict continues, but it consumed a very large number percentage of total US ISR assets. The US had to have at least four photo reconnaissance-class satellites and two radar-imaging satellites in operation, however, experts estimate that Afghanistan and the surrounding area can be photographed roughly every two hours.[99]

CIA director George Tenet instructed the military and intelligence community to rely on high-resolution imagery from private satellite networks to complete more basic tasks, such as assembling aerial maps of Afghanistan. The campaign in Afghanistan has been the first time ever in which private satellite data was relied on by the US military. This move preserves the use of the limited but more sophisticated and higher resolution government satellites for specific tasks, such as determining precise military targets and assessing the damage from a US or coalition strike against a target.[100]

There were equal limitations in ISR resources at the tactical level. The number of Special Forces teams that could be deployed to provide on-the-ground intelligence and targeting designation was very limited, and probably only a fraction of the number that will be found useful in the future.[101] Many of the on-the-ground data links, targeting systems, and communications systems provided to special operations forces and rear area intelligence/targeting analysts lacked the desired range and reliability and can still be greatly improved.[102] Other such improvements include the provision of lighter and longer-range laser designators and light all-terrain vehicles and trucks that offer higher mobility and less detectability than systems like the High Mobility Multipurpose Wheeled Vehicle (HMMWV).[103]

ISR and "Friendly Fire"

Furthermore, virtually all of the assets involved can be improved in ways that simultaneously increase the tactical impact of given strikes, increase their lethality, and reduce the risk of friendly fire, civilian casualties, and collateral damage. It should be noted that while the media has focused largely on collateral damage, putting an end to tragic friendly fire incidents like the US air strike that killed four Canadian soldiers in April 2002 are also very important.[104]

The incident mentioned above was due more to pilot error and command decisions than any fault in the ISR system. An F-16 pilot misinterpreted a nighttime live-fire anti-tank exercise as an attack (even though his altitude was 28,000 feet) and dropped a laser-guided, 500-pound GBU-12 bomb on the Canadian troops who were conducting that exercise.[105] That exercise involved the use of a range of weapons, from small arms to shoulder-fired anti-tank weapons.[106] A more integrated ISR system might have told him that he was flying over friendly forces. The two pilots involved in the incident may be criminally charged with involuntary manslaughter, aggravated assault, and dereliction of duty, and may face possible jail sentences of up to 64 years.[107] The pilots' lawyers will argue that the attack, though it resulted in tragedy, was a justifiable act of self-defense within a combat zone. They may also argue that the amphetamines the pilots were pressured to take as a "'fatigue management tool'" may have influenced the pilots' decision making. Furthermore, a lawyer for one of the pilots argues that the pilots are

victims of a politically motivated prosecution aimed at placating an angry Canadian ally.[108] In March 2003, Col. Patrick Rosenow - the person who oversaw an investigative hearing into the matter in January 2003 - issued an opinion that the criminal charges be dropped and that the pilots ought to receive a less severe form of punishment.[109] Lt. Gen. Bruce Carlson, commander of the Eighth Air Force, will ultimately decide the course on which this matter will proceed.[110]

There were also many ambiguous cases involving Afghan civilians who may or may not have been taking part in hostile action or may have been near or mixed with persons who were. The July 1, 2002 incident in which 40 afghans attending a wedding party died when an AC-130 fired in response to what it said was hostile fire, but where no confirming evidence was readily available when an after action ground investigation took place, is only one of the many cases where there was not clear dividing line between the problem of "friendly fire" and collateral damage.[111]

It is not clear that minimizing friendly fire has, as yet, been given the proper priority in US ISR designs and procedures. Certainly, technology may be approaching the point at which the US may be able to create some form of personal identification of friend or foe (IFF) system might be both affordable and technologically feasible.

The Decision Time Problem

Some analysts feel that the Afghan conflict shows that reducing decision time is now a critical issue. They feel that changes to the sensor-to-shooter cycle suggest that the Find-Fix-Track-Target-Attack-Assess (FFTTAA) parts of the sensor-to-shooter cycle have improved so much since Desert Storm and Kosovo that US forces now have the ability to find, classify and put ordinance on targets before those targets can get away. For instance, while in Desert Storm it took, in a particular instance, 80 minutes to complete the sensor-to-shooter cycle when identifying and targeting an SA-2 site, in Afghanistan sensor-to-shooter times decreased, on average, to just twenty minutes.[112] Indeed, in Afghanistan it was not these problems that caused US aircraft to miss opportunities to destroy targets. Rather, it was the "decision time" necessary to get authorization to act which cost opportunities to engage legitimate targets because of the time it took to make the decision to attack. They feel that examination of the data and lessons learned during the war will show that decision time has become the "long pole in the tent." Shortening the decision segment of the cycle would have a major effect on the future ability to strike time-sensitive targets and, therefore, improve future combat effectiveness.[113]

This issue is rooted in the problem of command authority and the rules of engagement (ROE) as promulgated, interpreted and acted upon – more specifically the extent to which the decision authority should be delegated to subordinate components and/or operational/tactical levels of command. Afghanistan (like every other conflict) has unique political aspects: the extent and perceptions of collateral damage were very important in the broader context of how the international Muslim community (and others) would react to US operations against a terrorist network that happened to be associated with Muslims.

As a result, rules of engagement (ROE) were applied that had a significant impact on the length of the decision process and drove the time length of the decision segment far more than

any other element (like weapon accuracy) in this part of the cycle. The less precise the guidance provided to the warfighter or the more restrictive the ROE, the longer it takes to complete the decision segment of the cycle. One possible reason for this is that technical components of the FFTTAA steps in the cycle have received primary attention and resources over the last ten years and are more optimized from the standpoint of putting ordinance on target, but the technology, systems, and procedures we have today do not do as well when it comes to acquiring and disseminating the types of information the person in the loop needs to determine if the rules of engagement permit attacking the target.

The fighting in Afghanistan was unique in that after its initial stages a majority of Navy aircraft began their missions either without specific targets or had their designated targets changed while in flight. The Navy estimates that roughly 80% of the total number of Navy-led air strikes was against time-critical targets identified during a mission. This was, in part, because of the significant time lag that resulted from having aircraft based far from the battlefield. In many cases, mission briefings occurred up to nine hours before aircraft actually arrived on scene. During this time period, targets and the overall layout of the battlefield often changed. This led to a situation in which the number of in-flight aircraft sometimes outnumbered the number of identified targets. While there is evidence to suggest that technological improvements have enabled the military to become more adept at handling a free-flowing targeting environment, some analysts argue that the military must work to improve its time-critical strike capabilities.[114]

In order to successfully execute a time-critical strike, an aircraft must be equipped with the necessary munitions. JDAM and other satellite-guided munitions, for instance, require more targeting time than a laser-guided munition. This is in part because a pilot must obtain specific GPS coordinates, check their accuracy, and then input them into a computer before launching a satellite-guided bomb. Successfully utilizing laser-guided munitions, however, requires that pilots be able to spot and maintain a lock on a target from their aircraft. In many cases, the fighter aircraft on these missions were not equipped with adequate forward-looking infrared sensors (FLIR), making it difficult for pilots to complete this task. When pilots and their wingmen are given targets while they are in mid-flight, they do not have the opportunity to study maps of the target areas, therefore, the need for quality sensors is especially critical to the success of a time-critical strike. But even with accurate sensors and information from AWACS and other surveillance aircraft, pilots indicate that they worry whether they are in fact striking legitimate targets.[115]

Lack of availability of FLIR systems contributes to training problems as well, with many officials expressing concern that the constant rotation of FLIR equipment from carrier to carrier leads to shortcomings in training opportunities. Advances have been made in FLIR technology, and the new AT-FLIR is supposed to provide pilots with improved pictures of targets. Additional enhancement could be made to combat aircraft by providing them with a direct connection to UAVs, thereby providing pilots with the same real-time video of the target zone that commanders on the ground have. Combined with improvements in communications, modifications are necessary to increase accuracy in time-critical strike situations. In Afghanistan, aircraft had the luxury of flying over target areas multiple times before dropping their munitions (in part because the enemy lacked the weapon technology to pose a serious threat to US aircraft).

In future conflicts US aircraft may not have this luxury, so quick identification and destruction of targets will become vital.[116]

If this thesis is supported by the facts and data being extracted from the official review of the lessons of Afghanistan, then one of the transformational implications of the war is that improving the decision segment of the sensor-to-shooter cycle can have transformational effects at little or no cost. It may also be possible to determine what categories of hardware, systems and procedures still need to be developed or improved to contribute information and data to facilitate the ROE process or remove procedural impediments to achieving the objectives of the ROE without missing opportunities to engage legitimate targets.[117]

The Problem of Targeting, Intelligence, and Battle Damage Assessment

Technology, however, is only part of the challenge. During the Gulf War, Desert Fox, and again in Afghanistan, the US faced several major problems in using its strike power effectively that will not be solved with better sensors and command, control, communications, and information (C^4I) systems. The problems associated with targeting terrorist and asymmetric forces have already been touched upon, as have the related problems of estimating collateral damage and civilian casualties.

These problems are virtually certain to be just as serious in future conflicts, regardless of the type of conflict. Most Middle Eastern wars will not be "mud hut" conflicts and the US may well face large-scale conventional contingencies in which a power chooses to fight inside cities and urban areas rather than in the open desert. Though Saddam Hussein chose not to do so, the remnants of his regime and the other insurgents have seized on this tactic. It may also have to strike at similarly dispersed CBRN facilities and forces. Furthermore, it may find that factions and their efforts to use or mislead the US in conducting strike operations can also be a major problem in places like Iraq.

The US already makes a major effort to avoid collateral damage in its air strikes and applies highly demanding rules of engagement in Afghanistan.

- *First, it does so by taking account of malfunctions/errors.* Malfunctions/errors can and do occur when weapons are used, which is why classified planning data has been created to predict such problems and why the US follows certain procedures to try to mitigate such incidents. Incidents of this type include run-in restrictions, target acquisition/lock ROE, abort criteria, and pre- analysis planning of weapon/target match.

- *Second, the US explicitly estimates probable collateral damage to civilians and civilian structures that could potentially result from strikes on legitimate targets.* Here the pre-analysis considers specific munitions effects in the initial munitions selection. Depending on the potential expected collateral damage, different modeling tools are available to determine best kill/minimum damage (e.g. JWAC Level IV Analysis - if necessary). Even given the potential for "type two" collateral damage, a conscious command decision is often made (with lawyers involved) to determine if the desired military effect is proportional to the level of expected collateral damage.

US ability to locate some kinds of targets is far better than its ability to characterize them, judge their importance, or assess the level of damage it did to their functional capabilities once it strikes them. The US did not demonstrate during the Gulf War, Desert Fox, or in Afghanistan that it had a valid doctrine for striking at leadership, infrastructure, and civilian C^3I, LOC, and other rear area strategic targets. It essentially guessed at their importance and bombed for effect.

Reference has already been made to the fact that General Franks gave testimony to the Senate Armed Services Committee that while the US needed an average of ten aircraft to take out a target in Desert Storm, a single aircraft could often take out two targets during the fighting in Afghanistan.[118] It seems virtually certain that figure will ultimately prove to be just as unrealistic as the initial battle damage claims made in the Gulf War, Desert Fox, and Kosovo.

To be blunt, the US military services and intelligence community simply do not have a credible battle damage assessment capability. They use an ever-changing set of rules that transform vague and inadequate damage indicators into detailed estimates by category and type. Their rules and methods have only the crudest analytic controls and cannot survive simple review methods, like blind testing. They rely heavily on imagery that cannot look inside buildings and shelters, which often cannot tell whether a weapon was inactive or had already been damaged by other kinds of fire, and which is essentially worthless in estimating infantry and human casualties.

US ability to characterize sheltered and closed-in targets remains weak, as does its ability to assess and strike at hardened targets. This remains a major problem in the case of nations that make extensive use of such facilities, like Iraq did and Iran does, but it is important to note that US sensors and teams on the ground never succeeded in characterizing many much simpler Taliban and Al Qaida facilities, such as caves. For example, the Navy SEAL team that explored the cave complex at Zhawar Kili in February had no idea that it would turn out to be the largest complex yet uncovered and had to physically enter the area to determine that the US air strikes on the facility had little or no effect and left large stocks of supplies intact.[119] One way the United States is dealing with the problems posed by hardened targets is by developing a new 30,000-pound, precision-guided bomb, which will be the largest weapon of its type in the US inventory.[120] The bomb is carried by the B-2, though it is not clear whether it has been used in Iraq.[121]

The US has better ability to assess physical damage to surface buildings, but limited ability to assess damage to their contents. Its ability to assess functional damage to complex systems, like land-based air defense systems, and the resulting degree of degradation in their operational capabilities, is also generally weak. The US had major problems in these areas in the Gulf War, Kosovo, and in ten years of strikes against the Iraqi air defense system. The US had – and still has -- major problems in locating key targets, like the leadership of hostile powers or the facilities and forces related to weapons of mass destruction.

The Middle East presents particularly serious challenges in terms of proliferation, since the US and its allies face ongoing problems in terms of proliferation in Iran, Iraq, and Syria, and the possible acquisition of such weapons by terrorist forces. More broadly, the ability to reliably

perform battle damage assessment remains a weak link in the US ability to "close the loop," even in dealing with conventional military targets like armor, major weapon depots, and infantry.

In short, Afghanistan is yet another warning that "closing the loop" and many other potential advantages of the "revolution in military affairs" requires far better strategic assessment and intelligence capability to determine the nature and importance of targets, better ways to assess their strategic impact and the impact of striking them, and an honest admission by the US military services and intelligence community that its battle damage assessment methods are crude and inadequate, if not actively intellectually dishonest.

Hard Target Kill Capability

Afghanistan had only a few classic shelters and hard targets left over from the days of the Soviet occupation and none had serious military meaning. It did, however, have many caves and a number were improved by Al Qaida to become highly survivable and well concealed targets. The US used a wide range of ISR systems to try to find and characterize such caves and shelters and did find many. It could virtually never, however, fully characterize the nature of the target any more than it could "look inside" ordinary buildings and surface facilities. Many were found only by ground troops who could penetrate into caves, and many may have never been discovered or assigned the right priority.[122]

During the fighting, the US placed a great deal of public emphasis on its use of bombs and weapons that had been specially configured to attack caves and other hardened targets. Those weapons included the use of the 15,000-pound "Daisy Cutter" against a mountain face with a number of caves.[123]

They included the GBU-28 "bunker buster," a 5,000-pound bomb originally developed during the Gulf War to kill hard targets like the shelters used by Saddam Hussein. This weapon uses a GPS or laser guidance system and can use software to produce a deep dive to increase its penetrating capability. Additionally, the weapon has been given a new cap with an elongated spike made of a nickel-cobalt-steel alloy that can double the penetration of the weapon against some buried surfaces. Other such weapons include the GBU-15, GBU-24, and GBU-27. Also used was the AGM-130 rocket propelled bomb - a 2,900-pound weapon with a similar warhead that F-15Es can fire at ranges of 40 miles from a target and which has both GPS and video camera guidance.[124]

The most striking weapon was a new form of fuel-air explosive, the BLU-118/B thermobaric munition, which was dropped on March 2, 2002 against Al-Qaida and Taliban targets near Gardez, on the same day the USAF flew its first A-10 sorties in close air support missions out of bases in Pakistan. Like the earlier FAE weapons, the BLU-118/B uses a fuel-rich chemical mixture to combat, rather than detonate, in a way that produces a long duration, high temperature pulse that creates an extremely high overpressure that can kill people (10-lbs per square inch) and damage vehicles (50-lbs per square inch). It uses the same penetrating warhead as the 2,000-pound BLU-109 bomb and can be used on GBU-15 glide bombs, GBD-24 laser-guided bombs, and AGM-130 air-to-ground missiles.[125] The BLU-118/B is a first generation

weapon, however, and much more sophisticated forms of this weapon are under development for hard target kills.[126]

US special operations soldiers may have also made use of an experimental specialty cannon called the Deep Digger, which is designed to eat into caves and bunkers by using a rapid series of explosions and secondary explosions. The USAF prepared 50 AGM-86D cruise missiles with hard-target kill warheads, but may not have used them.[127]

It is unclear that most of these strikes produced any meaningful battle damage either for targeting reasons or because the effects were not serious enough. In at least some cases, the US seems to have fired such weapons against caves to inhibit their use and struck at their cave entrances more to intimidate those inside than to try to actually damage or kill the target. It is unclear whether any such attacks have had any real success in terms of major damage. It is clear that caves with rock overhangs or other shielding terrain features at their entrances were difficult for the US to target and attack.

It short, the US may be developing effective intelligence, targeting, and kill capabilities. It did little more in Afghanistan, however, than bang away at hardened targets with unknown psychological and deterrent effects.

Power Projection

Again, it is dangerous to generalize without more detailed data on the forces engaged in the conflict and the history of their battles and engagements, and it is dangerous to generalize at all, given the unique character of the Afghan conflict. Nevertheless, some lessons about force transformation and power projection do seem clear.

The Afghan War has again demonstrated the need to be able to rapidly project land and air power at very long distances. It has demonstrated the value of strategic airlift and long-range strike capability, and the ability to operate with limited forward basing. At the same time, it has confirmed the value of light and special operations forces in counterterrorism efforts and some forms of asymmetric warfare. Additionally, the conflict in Afghanistan has demonstrated that major regional contingencies/wars in which the US must fight against heavy armor and heavily defended airspace are only one type of possible scenario in a changing spectrum of potential conflicts.

During the fighting in Afghanistan, the US has relied heavily on strategic airlift capabilities to transport forces and equipment to the battlefield and forward staging areas. The heavy reliance on airlift capabilities, however, has revealed several shortcomings in US airlift capability. An Air Force study anticipates an increase in the need for strategic airlift capabilities and call for the purchase of 60 new C-17 cargo planes. The USAF estimates that of 5,500 missions in Afghanistan, the C-17 was involved in 2,872. Additionally, it claims that C-17s have transported roughly 44,000 personnel, 100,000 tons of cargo, 636 medical patients, and 565 Al Qaida and Taliban detainees.[128]

The Marines' fleet of roughly 50 KC-130's is aging and in need of serious maintenance and upgrades. As of January, a majority of the KC-130s in Afghanistan were not equipped with night-vision equipment and the advanced radar systems used in combat aircraft. Because the aircraft are vulnerable to attacks from shoulder-launched missiles - a popular weapon among Al Qaida and Taliban fighters - they have been forced to fly only at night, making night navigation capabilities essential. A lack of night-vision and terrain avoidance radar was cited by the DoD as a major factor leading to a January 9 accident in which a KC-130 crashed into the side of a mountain in Afghanistan. The KC-130J, the next generation of the aircraft, is equipped with the necessary night navigation equipment. The lack of such equipment on current aircraft, however, suggests that the military must focus additional funding on improving operational effectiveness.[129]

While Afghanistan did not stress the total pool of US airlift assets, it did indicate how critical having adequate total lift capacity can be in larger wars. It is important to note in this regard, that various war games show that the US is ten to fifteen million-ton miles short of a requirement for total strategic lift capacity, which is 54.5 million ton miles. The US is now buying C-17s at the rate of one a month to fill this gap, and the C-17 showed in Afghanistan that its ability to use relatively unimproved airfields does give it a practical advantage. The US has an inventory of roughly 120 C-17s and plans to buy 60-120 more. It is also replacing the engines and updating the avionics on its 23 aging C-5s, and seeking to buy 150 more C-130J tactical airlift aircraft.[130]

US airlift would still, however, be under severe strain to support one major regional contingency through at least 2019, and the US is the only NATO country with significant dedicated strategic airlift.[131] Britain has leased C-17s and plans to replace some of its 44 C-130s with A400Ms, but has not yet bought a strategic lift aircraft. France plans to buy such aircraft, but the timing, scale, and capacity involved is still far from clear.[132]

The Role of Allied Coalition Forces

A list of allied forces supporting the US as of June 2002 illustrates both the flexibility that coalition operations can provide as well as the political and military value of what are often small contributions. [133] Please note that some countries may be providing support for the war in Afghanistan that they are keeping confidential, therefore, this list should not be interpreted as being comprehensive.

Australia

- Australian Special Operations Forces (SOF) are currently in Afghanistan performing the full spectrum of SOF missions. A second rotation of these forces has recently occurred and demonstrates Australia's ongoing support of operations in Afghanistan.
- Australia has deployed two dedicated KB-707 aircraft to Manas, Kyrgyzstan. The deployment also includes a significant number of support personnel.
- The Royal Australian Air Force is filling a key, wing leadership position (Operations Group Commander) at Manas.

- Fighter aircraft are deployed to perform Combat Air Patrol (CAP) missions at Diego Garcia in support of Pacific Command. That highlights Australia's broader commitment to the war on terror and the significant relationship Australia and the U.S. share across a number of Areas of Responsibility (AORs).
- Australia has deployed three ships to the Central Command (CENTCOM) AOR that support naval operations. They are HMAS Manoora, HMAS Canberra, and HMAS Newcastle. They are conducting Maritime Interception Operations (MIO) in the Arabian Gulf and enforcing UN sanctions against Iraq.
- The National Command Element is forward-deployed in the region, providing command and control for deployed forces.
- Australia suffered the first non-U.S. military fatality on February 16, 2002 -- Sgt. Andrew Russell was killed in action as the result of a land mine explosion. Previously, another member of Australia's Special Forces lost his foot in another land mine incident. He is recovering in Australia.

Belgium

- Belgium is providing one officer to the Coalition Intelligence Center (CIC) at CENTCOM and one officer to the Regional Air Movement Control Center (RAMCC) to serve as deputy chief of operations.
- Belgian Air Force C-130 aircraft delivered a high protein food supplement (UNIMIX) from Denmark to Dushanbe, Tajikistan and an A-310 (Airbus) delivered 250,000 vaccinations for children under the United Nations Children's Fund (UNICEF) program.
- Belgium led the largest multinational Humanitarian Assistance (HA) mission, which included Belgium, Spain, Netherlands and Norway. This mission provided 90 metric tons of UNIMIX to feed starving children in Afghanistan and set the standard for follow-on HA operations.
- Belgium contributed four people to Operation Noble Eagle supporting U.S. homeland security efforts. These Belgians are at Tinker AFB.
- In contribution to the International Security Assistance Force (ISAF), a Belgian C-130 with aircrew and maintenance crew (25 people) arrived in Karachi on April 10, 2002. They will stay in Karachi and execute part of the 400 dedicated C-130 flight hours for ISAF. The crew and aircraft are working on a one-month rotation schedule.

Bulgaria

- Will provide basing and over-flight rights upon request – standard clearance authority for over-flights.
- Provided basing for six KC-135 aircraft to support humanitarian flights into Afghanistan during November and December 2001.
- Provided 40-person Nuclear, Biological, Chemical (NBC) decontamination unit to support ISAF in Kabul.

Canada

- Contributed the first coalition Task Group to arrive in CENTCOM AOR.
- Canada currently has 2,025 personnel in the CENTCOM AOR (1,100 land, 225 air and 700 naval personnel). To date, 3,400 personnel have deployed in support of Operation Enduring Freedom.
- The Canadian Naval Task Group has been engaged in Maritime Interception Operations, Leadership Interdiction Operations (LIO), escort duties and general maritime surveillance between the northern Persian Gulf and the northern Arabian Sea. Seven ships deployed to the region from October 2001 to April 2002.
- Canadian Air Force CC-150 Polaris (Airbus) and three CC-130 (Hercules) aircraft have conducted strategic and tactical airlift. They have moved more than 7.8 million pounds of freight to date.
- Two CP-140 Aurora (P3C) aircraft are employed in MIO/LIO as part of Carrier Task Force 57.
- Eighty-four missions and 746 flight hours have been logged to date. Organic helicopter assets have flown 930 missions for more than 2,900 hours.

- Special operations forces are currently in Afghanistan performing the full spectrum of missions.
- HMCS TORONTO, while operating in the northern Arabian Sea, intercepted a small vessel laden with 4,500 pounds of hashish (valued at more than $60 million). Its crew abandoned the vessel during the interception. The cargo and vessel were subsequently destroyed.
- Princess Patricia's Canadian Light Infantry Battle Group has deployed as part of TF Rakkasan with 828 personnel and twelve COYOTE armored reconnaissance vehicles. These forces have been deployed to Kandahar for security and combat operations. Their successes to date:
    - They led Operation Harpoon from March 13-16, 2002. Investigated 30 caves and four mortar positions. Action resulted in three enemies KIA.
    - They conducted patrol on March 18, 2002 in the Kandahar region that uncovered a cache of weapons (including three thermobaric launchers).
    - They are continuing to conduct Civil Military Cooperation (CIMIC) efforts in the Kandahar area.
    - They provided the Quick Reaction Force that deployed from Kandahar to secure the site of the Apache helicopter that crashed on April 10, 2002.

Czech Republic

- Country representatives arrived at CENTCOM on Nov. 9, 2001. Currently, there are three personnel at CENTCOM.
- There are 251 personnel deployed to Camp Doha, Kuwait to perform local training as well as AOR-wide Consequence Management (CM) support.
- Offered to donate 1,000 military uniforms to support the Afghan National Army (ANA).

Denmark

- The Danish Air Force is providing one C-130 aircraft with 77 crew and support personnel.
- Additionally, the Danish Air Force will deploy four F-16 aircraft in an air-to-ground role with pilots and support personnel in October. These assets are on standby in Denmark.
- Approximately 100 special operation forces personnel have deployed to the AOR as part of a multinational unit under U.S. command. Due to rotation of forces, the number at present is approximately 65.
- Denmark suffered three killed and three wounded in action supporting ISAF operations.

Egypt

- Egypt has provided over-flight permission for all U.S. and coalition forces.
- Country representatives arrived at CENTCOM on Nov. 28, 2001. There are currently three personnel at CENTCOM.

Estonia

- Approved unconditional over-flight and landing rights for all U.S. and coalition partners.
- Offered two explosive detection dog teams for airbase operations.
- Offered 10 cargo handlers as part of Danish contingent deployed to Manas, Kyrgyzstan.

Finland

- The Finnish Military Liaison team at CENTCOM continues to concentrate especially on civil-military operations with an objective to facilitate cooperation and coordination between ISAF, OEF and UN operations in Afghanistan.
- Finland is currently assisting the Afghan administration, non-governmental humanitarian organizations and military forces in Afghanistan in an effort to promote the long-term reconstruction of the country.

- Finland is providing the largest Civil-Military Cooperation (CIMIC) unit in Kabul in support of ISAF. This unit currently consists of nearly 50 officers.

France

- The French Air Force deployed C-160 and C-130 aircraft to Dushanbe, Tajikistan, and has provided humanitarian assistance as well as national and coalition airlift support.
- Two KC-135 aircraft have deployed to Manas, Kyrgyzstan to provide aerial refueling.
- Six Mirage 2000 fighter aircraft have also deployed to Manas to provide close air support (CAS) capability.
- French engineers helped construct runways, a tent city and a munitions storage facility at Manas.
- France also provided airfield security (with dogs), a field mess unit, a deployable weather bureau, and a Civil Military Operations (CMO) team.
- France deployed an infantry company to Mazar-e-Sharif to provide area security until December 2001.
- Two French officers are currently serving as an air coordinator at the Regional Air Movement Control Center.
- Atlantique aircraft deployed in Djibouti under national control and are participating daily in Intelligence, Surveillance and Reconnaissance (ISR) missions.
- France is providing its only carrier battle group to support combat operations in the northern Arabian Sea. Aircraft from this battle group have flown more than 2,000 hours for OEF to date, supporting the coalition with air reconnaissance, strike and AEW missions. France's naval contribution to OEF accounts for approximately 24 percent of their entire naval forces.
- France is the only coalition country to be flying fighter aircraft from Manas airfield in Kyrgyzstan.
- French Mirage and tanker aircraft actively supported the coalition during Operation Anaconda in March and are maintaining their full combat and support capabilities for further operations.
- Kabul Medical Institute: The World Health Organization, French Embassy, Loma Linda (NGO) and French forces (500 personnel) inserted into ISAF are working to make major improvements to the Kabul Medical Institute - with equipment, books and a new curriculum. The student body of about 2,800 includes 544 women.

Germany

- There are 2,560 German personnel currently operating within the CENTCOM AOR.
- German special operations forces are currently in Afghanistan performing the full spectrum of SOF missions.
- The German Navy has had three frigates, one Fast Patrol Boat Group (five units) and four supply ships operating out of Djibouti, in the Gulf of Aden area, since Jan. 2002. Additionally, there are two German Sea King helicopters based in Djibouti.
- A German A-310 (Airbus) aircraft is on alert in Germany for use as a medivac platform.
- Germany has one battalion-sized Infantry Task Force operating in Kabul, Afghanistan, as part of ISAF operations. This force is supported by an air transport element operating out of Uzbekistan.
- USAID and CJCMOTF are working on a plan to employ Afghan war widows to make uniforms for the Kabul police force - a micro-industry proposal made possible by a German contribution of 10 million Euros to help train and equip the police force.
- This is the first time German ships and maritime patrol aircraft have been operationally involved in a Middle East deployment in more than 50 years. Three German maritime patrol aircraft began conducting reconnaissance operations from Mombassa, Kenya. Germany conducted HA flights to support relief efforts for earthquake victims in Afghanistan.

Greece

- Greek Frigate Psara has been in CENTCOM's AOR since March 15th, conducting operations under the operational control of Coalition Forces Maritime Component Commander (CFMCC). This frigate is of Meko type and is one of the most sophisticated vessels in Greece's inventory. It is manned with a crew of 189 and carries one S-70 BA Aegean Hawk helicopter and one Special Forces team. It has the ability to perform and execute a large variety of missions. It will be replaced in three months by another frigate of the same type, so there will be constant Greek naval presence in the area of interest.
- The facilities of the Greek Naval Base and Airbase of Souda, Crete, are used as forward logistic sites to support ships and aircraft moving in the area, as well as other basing settlements across the country.
- One Air Force officer is going to be assigned as an operations officer of the RAMCC and one Navy liaison officer will deploy to Bahrain.
- Greece is very active in ISAF operations.
- One Greek Engineer Company of 123 persons and 64 engineering vehicles has been operating in Kabul.
- Two C-130 transport aircraft with a support security team of 56 personnel have deployed to Karachi, Pakistan, for tactical airlift in support of ISAF operations.
- Greek staff officers have been assigned to Permanent Joint Headquarters (PJHQ) in Great Britain and to ISAF HQ in Kabul.
- In the eastern Mediterranean Sea, Greece is providing one frigate and a counter-mine ship that have been conducting surveillance and mine sweeping operations in support of NATO operations. Additionally, Greece has offered two more vessels and a number of aircraft sorties in support of Operation Active Endeavor.

India

- Provided frigate for escorting coalition shipping through the Straits of Malacca.
- Made shipyards available for coalition ship repairs.
- Opened ports for naval port calls.

Italy

- The Italian Air Force is planning to deploy one C-130 plus one Boeing 707 to Manas airfield following initial force rotation.
- Deployed a 43-person engineering team to Bagram to repair the runway. Repairs will take place on May 10-22.
- Italian personnel are committed to both OEF and ISAF operations. A 400-person regimental task force was deployed on Jan. 15, 2002 in order to provide area and site security for Kabul.
- Italy is providing three C-130s (two operating from Abu Dhabi) and leasing one B-707, one AN-124, and one IL-76 in support of ISAF.
- Italy provided its only Carrier Battle Group to the northern Arabian Sea to support coalition combat operations.
- Italy deployed more than thirteen percent of its naval forces for use in OEF. The "Durand de La Penne" Group (one destroyer and one frigate) relieved the Carrier Battle Group on March 15, 2002.
- The Italian frigate "Euro" transited the Suez Canal on May 8 to relieve both combatants on station.
- Italy moved more than 17,000 lbs. (27 cubic meters) of supplies and equipment from Brindisi to Islamabad, Pakistan, on March 19, 2002. Supplies/equipment included a forklift and equipment from the World Food Program.
- On April 18, Italian aircraft and security forces transported former King Mohammed Zahir Shah and AIA leader Hamid Karzai from Rome to Kabul without incident.

Japan

- Provided fleet refueling capability, placing two refueling/replenishment ships and three support/protection destroyers in the AOR. Through mid-May, this force had conducted 75 at-sea replenishments of coalition ships and provided 34.1 million gallons of F-76 fuel to U.S. and UK vessels.
- Also as of mid-May, six C-130 aircraft had completed 51 missions consisting of 166 sorties with 773 tons of cargo and 123 passengers in support of re-supply and transport requirements within the Pacific Command (PACOM) AOR.
- On May 17, the Government of Japan approved a six-month extension of the Basic Plan authorizing the Self Defense Forces to continue these efforts.

Jordan

- An "Aardvark" mine clearing unit and personnel are currently deployed to Kandahar, and have cleared mines from more than 70,000 square meters in both Bagram and Kandahar.
- Jordan has provided basing and over-flight permission for all U.S. and coalition forces.
- As of May 16, 2002, the Jordanian hospital in Mazar-e-Sharif had helped 57,536 patients: Military - 989; Civilian - Women: 22,297, Men: 18,861, Children: 15,389.
- Performed 683 surgeries.

Kazakhstan

- In July 2002, Kazakhstan signed an agreement with the US that permits US and coalition aircraft to make emergency landings and refuel at the international airport in Almaty.[134]

Kuwait

- Kuwait has provided basing and over-flight permission for all U.S. and coalition forces.
- Country representatives arrived at CENTCOM on Feb.14, 2002. There are currently three personnel at CENTCOM to support current operations in OEF.

Latvia

- Approved use of airspace, airfields and ports for GWOT.
- Offered to provide ten cargo handlers as part of Danish contingent deployed to Manas, Kyrgyzstan.

Kyrgyzstan

- As part of backfill, Kyrgyzstan has offered to double (to two infantry companies) SFOR contributions and more than double (to 25 soldiers) KFOR contributions.

Lithuania

- Approved use of airspace, airfields and ports for GWOT.
- Offered to provide ten cargo handlers as part of Danish contingent deployed to Manas.
- Scheduled to deploy an ambulance with medics as part of a Czech Republic contingent.
- Offered SOF platoon, military divers, translators, minesweeper, aircraft and maintenance support to SFOR/KFOR.

Malaysia

- Has approved all requests for over-flight clearance since September 11.
- Has provided access to Malaysian intelligence.

Netherlands

- An Air Force KDC-10 is currently deployed to Al Udeid, Qatar. To date, C-130 aircraft have completed three HA flights under the Dutch national flag.
- The Netherlands will deploy one C-130 aircraft to Manas to assist with the movement of cargo.
- Dutch F-16s will be deployed to Manas in October.
- Two Dutch naval frigates are currently operating in the CENTCOM AOR. Other naval ships, along with Air Force P-3s, will relieve U.S. units in the U.S. Southern Command AOR.
- One person is working as a planning officer at the Regional Air Movement Control Center (RAMCC).
- The Netherlands has contributed 220 troops to ISAF.
- On March 27, 2002, a NLD officer arrived at the RAMCC.

New Zealand

- New Zealand Special Air Service (SAS) troops work alongside the forces of other nations in Afghanistan. They fill an important role by being part of the international effort to stabilize the area.
- New Zealand provided logistics and humanitarian airlift support in Afghanistan with Air Force C-130 aircraft. These aircraft were made available to help move the backlog of equipment and supplies needed for OEF.
- A seven-person Air Loading Team (ALT) was deployed to support ISAF.
- New Zealand will deploy up to eight officers to staff the ISAF headquarters.

Norway

- Norwegian Hydrema 910 mine clearing vehicles and personnel have been responsible for clearing more than 640,000 square meters of terrain on Kandahar and Bagram airfields and surrounding areas since their deployment on Jan 1, 2002.
- SOF self-deployed into Afghanistan and are currently providing a full spectrum of missions there.
- Norwegian Air Force C-130 aircraft operating from Manas airbase are providing intra-theater tactical airlift support and support to OEF. On a national basis, the C-130 has conducted re-supply missions for Norwegian SOF forces and HA missions to Afghanistan.
- Norway will deploy F-16s to Manas in October.
- Norway's SOF exploitation missions have yielded valuable intelligence.
- Norway has provided 15 hardened vehicles ($1.5 million) that are currently supporting SOF missions and providing leadership transport.
- In the unified effort to rebuild the Afghan Army, Norway has donated personal items and equipment for a 700-person light infantry battalion.

Pakistan

- Pakistan has provided basing and over-flight permission for all U.S. and coalition forces.
- Pakistan has deployed a large number of troops along the Afghanistan border in support of OEF.
- Pakistan has spent a large portion of its logistical reserves to support the coalition, a very significant contribution in light of Pakistan's economic difficulties and self-defense support requirements.
- Country representatives arrived at CENTCOM on March 14, 2002. There are five at CENTCOM.
- The Inter-Services Intelligence (ISI) has helped in various phases of operations.

Philippines

- The Philippines has provided landing rights and base support for U.S. aircraft.

- It has granted unconditional blanket over-flight clearance.
- It has offered medical and logistical support for OEF.

Poland

- Polish combat engineers and logistics platoon forces recently deployed to Bagram via Kabul.
- Eight AN-124 flights were coordinated with the RAMCC to move those forces. That was a large and costly operation for the Poles.
- Since their arrival in mid-March, those engineers have cleared mines from more than 4,000 square meters of land.

Portugal

- Portuguese country representatives arrived at CENTCOM on Dec. 13, 2001.
- Portugal has a medical team of eight people and a C-130 with a maintenance team of fifteen people currently under ISAF control.

Republic of Korea

- A Republic of Korea naval vessel transported more than 1,000 tons of critical construction material from Singapore to Diego Garcia to support the demand for OEF building materials.
- Additionally, the ROK has pledged more than $45 million to aid in the reconstruction of Afghanistan.
- The ROK has deployed a Level II hospital to Manas.
- ROK Air Force C-130s have flown 18 flights between Seoul and Diego Garcia, as well as five flights to Islamabad. Those flights were responsible for transporting more than 45 tons of humanitarian relief supplies valued at $12 million.

Romania

- On Sept. 19, 2001, the Romanian Parliament approved basing and over-flight permission for all U.S. and coalition partners.
- Three liaison officers arrived at CENTCOM on Dec. 10, 2001. One of them is working in the Coalition Intelligence Center.
- Romania will deploy one infantry battalion into Afghanistan. Additionally, one Infantry Mountain Company, one Nuclear, Biological, Chemical (NBC) Company, four MiG 21-Lancer aircraft, and medical personnel have been offered.
- For ISAF, Romania has deployed one Military Police Platoon and one C-130 aircraft.
- The Romanian government has delivered a large quantity of training equipment for the Afghan National Guard as well.
- The Romanian Parliament recently approved the deployment of a 405-person motorized infantry battalion, a 70-person NBC company, and 10 staff officers.
- Romania has donated the following items in support of the ANA: 1,000 AK-47 assault rifles; 300,000 rounds of ammunition, magazines and cleaning sets

Russia

- Russia started providing humanitarian assistance to the population of Afghanistan in October 2001.
- Russia has supported HA operations by transporting more than 420,296 tons of food commodities, 2,198 tons of medicines, 15,282 beds, 1,200 heaters, 13 mini electric power stations, 780 tents, 11,000 blankets, 49,674 bedding kits, 11,000 kitchen utensils, and nine tons of detergents.

- In December 2001, Russian personnel started reconstruction of the Salang tunnel, a major transport structure, connecting the northern and southern provinces of Afghanistan. In January 2002, the Salang tunnel was officially opened for regular traffic.
- In January 2002, as a result of a joint Russian-German project, pontoon passage across Pianj River was put into service. Together with the Salang tunnel, it allowed the organization of a continuous route from Tajikistan to the central region of Afghanistan for the delivery of international humanitarian assistance.
- Russia provided the first coalition hospital in Kabul on Nov. 29, 2001. The hospital treated more than 6,000 patients before Russia turned the facility over to the local population on Jan. 25, 2002.
- On March 29, 2002, EMERCOM, Russia's emergency response organization, deployed its mobile hospital to Nakhreen and began medical assistance to the victims of the earthquake in Afghanistan.
- Thus far, EMERCOM has delivered over 100 metric tons of HA supplies to the Nakhreen area to include: provisions, medicines and means for cleaning water.
- Additionally, Russian rescue teams have conducted search and rescue operations throughout the area.

Slovakia

- On Sept. 18, 2001, Slovakia notified the U.S. that it would grant blanket overflight and basing rights to all coalition partners.
- Slovakia dispatched a liaison officer to Central Command HQ on March 10, 2002.
- Slovakia will deploy an engineering unit into Afghanistan.
- Additionally, Slovakia has offered a Special Forces regiment, NBC reconnaissance units, and a mobile field hospital.

Spain

- Spain has deployed one P-3B to Djibouti, two C-130s to Manas, and one C-130, which accomplished its mission and is back in Spain.
- Two naval frigates and one deployed to the CENTCOM AOR to support continued operations in OEF.
- Spanish maritime patrol aircraft began conducting reconnaissance operations from a French base in Djibouti.
- Spain deployed SAR helicopters to Manas on April 12.
- As of May 16, 2002, the Spanish hospital in Bagram had helped 6,343 patients (military: 1,110; civilian: women – 1,261, men – 1,670, children – 2,302) and performed 66 surgeries.

Sweden

- Country representatives arrived at CENTCOM on Mar. 28, 2002. There are currently two personnel at CENTCOM.

Turkey

- Turkey has provided basing and overflight permission for all U.S. and coalition forces.
- One Turkish officer is scheduled to work as a planning officer at the Regional Air Movement Control Center (RAMCC).
- Turkey was the first coalition country to provide KC-135 aerial refueling support for U.S. aircraft during their transits to the CENTCOM AOR.
- Turkey, as of June 20, assumed the position as lead nation for the second phase of ISAF operations in Afghanistan.[135]

United Arab Emirates

- Country representatives arrived at CENTCOM on Nov. 1, 2001. There are currently three personnel at CENTCOM.

United Kingdom

- Country representatives arrived at CENTCOM on Sept. 18, 2001. There are currently 38 personnel at CENTCOM. The UK also has staff attached to every major U.S. component command.
- The senior British Major General serves as deputy commander for all coalition naval forces in theatre and is responsible for coordinating extensive operations. British forces have participated in MIO and Tomahawk Land Attack Missile (TLAM) operations.
- The Royal Air Force has provided aircraft throughout the region and contributed high-value assets in the critical areas of aerial refueling; Airborne Early Warning (AEW); and Intelligence, Surveillance and Reconnaissance (ISR).
- UK ground forces have participated in both OEF and ISAF missions. A company of Royal Marines from 40-Commando deployed to Kabul and has contributed to airfield security and mine clearing operations, including the provision of special equipment at both Bagram and Kabul international airports.
- UK was the first nation to send military representatives and campaign planners to CENTCOM.
- The UK has deployed the largest naval task force since the Gulf War to support OEF.
- Additionally, the UK provided the only coalition TLAM platforms to launch missiles during the commencement of OEF hostilities.
- The UK assumed the lead for the initial ISAF operation.
- On March 21, the UK began the deployment to Afghanistan of a 1,700-person infantry battle group, built around 45-Commando and Royal Marines. Those arctic and mountain warfare-trained troops operate as part of a US-led brigade and conducted operations along the Afghanistan-Pakistan border in search of Al Qaida and Taliban fighters as well as weapons caches. On July 9, a majority of the Royal Marines completed their tour of duty in Afghanistan.[136]

Uzbekistan

- Uzbekistan has provided basing and overflight permission for U.S. and coalition forces.
- Uzbek country representatives arrived at CENTCOM on Dec. 26, 2001. There are four Uzbek personnel at CENTCOM.

There were significant initial problems in deploying allied forces. The basing, transportation, and support systems available at the start of the campaign limited US ability to accept allied forces. So did the lack of language training, command and control assets, cross-training in the use of US ISR equipment and battle management techniques, and problems in combat rescue and force protection capabilities. Most allied forces lacked strategic mobility and sustainability and the US was no organized to use many of the assets other countries offered. The lack of a clear US nation-building plan, and prior allied planning for such a mission, also meant that the US was relatively slow to recognize the importance of nation building and peacekeeping support.

The situation changed radically as time went on, however, and the value of allied forces became clear. By June 2002, twenty nations had deployed more than 16,000 troops to the U.S. Central Command's region of responsibility. In Afghanistan alone, coalition partners contributed more than 7,000 troops to Operation Enduring Freedom and to the International Security Assistance Force in Kabul – making up more than half of the 14,000 non-Afghan forces in Afghanistan.

Common Base Operations

One area that clearly needs review is the lack of effective US planning for common Base Operations Support (BOS) in joint doctrine and procedures. Some analysts feel the integration of conventional land forces and special operations forces (SOF) at the support level at austere bases was not a pretty story and helped lead to a surprisingly slow build-up of SOF teams in Afghanistan. This will probably surprise many people, given what was accomplished.

There seems to be good reason to question whether each service or service component should rely as much on having its own base support as is the case today. The US also needs to carefully examine the tendency to "gold plate" the basing capabilities for some combat and support elements, while leaving others austere, and the tendency to use different levels of force protection for different services and components. Specialization is one thing, duplication is another, and joint basing may offer significant savings as well as increase the speed of power projection.

The Value of Coalition Warfare and Mission-Oriented Interoperability

Recent wars have repeatedly demonstrated the value of coalition warfare in every aspect of operations from power projection to combat. The Afghan conflict, however, is interesting because light, highly trained allied forces, like the SAS, could be highly effective without expensive high technology equipment, standardization, and interoperability. Similarly, relatively primitive allied local ground forces could be very effective substitutes for US ground forces when given the support of US Special Forces and advisors and effective air and missile strike capability. This is a lesson that emerged in a different way from the role that the KLA and other Kosovar forces played in Kosovo.

Rethinking the Emphasis on High Cost Forces and Force Improvements

Once again, there are clear limits to this lesson. However, the US and British experience in Afghanistan may indicate that the US and NATO have overstressed the high technology and high investment aspects of coalition warfare and interoperability, and paid too little attention to the value of being able to draw on a pool of highly trained, lighter forces, like the SAS, or their Australian, Canadian, German, and other equivalents. The same may be true of the value of using limited numbers of highly trained advisors, forward air controllers, and targeters on the ground, along with rapid transfers of low and medium technology arms to strengthen local forces. It seems fair to say that, in the past, the US has paid more attention to seeking technological clones or doing it alone than to using its specialized, high technology strengths in ways which make it easier to operate with less-well-equipped Western and regional allied forces. This may well have been too narrow, if not the wrong, approach to coalition warfare and interoperability in many mission areas.

Civilian Cover, Collateral Damage, and Human Rights as a Weapon of War

The enemy use of civilian cover and manipulation of casualties and collateral damage statistics is another lesson of the war. The Gulf War, the fight against Iraq since that time, Kosovo, and the Afghan War all saw efforts to use civilians and civilian facilities as shields against US and allied attacks. Distributed terrorist networks and state-sponsored asymmetric forces can be expected to make steadily more use of civilians as shields and civilian areas as hiding places. Extremist groups like Hezbollah and Hamas have long gone further, as have Kurdish terrorist organizations in Turkey. They deliberately blur the line between terrorist and combat elements; religious, educational, humanitarian, and medical elements and functions; and "peaceful" political elements and action.

In the process, both terrorist organizations (like Al Qaida) and states (like Iraq) have found that well-organized political and media campaigns can blur the lines of responsibility for terrorist and military acts, enabling them to use collateral damage and human suffering as political weapons of war. Wrapping movements in the cloak of democratic values, exaggerating civilian casualties and suffering, and exploiting human rights and international law are becoming a steadily more sophisticated part of modern terrorism and asymmetric warfare.

So, for that matter, are religion and ethnicity and the ability to exploit the causes and suffering of others. Al Qaida and Saddam Hussein, for example, have systematically exploited Islam, their identity as Arabs, and the Second Intifada. Milosevic and his elite did something very similar in Bosnia and Kosovo, exploiting Christianity and their Slavic identity with Russia. The Taliban exploited the Afghan situation by producing grossly exaggerated claims of civilian casualties. While an independent estimate by the Associated Press put the figure at roughly 500-600, the Taliban Ambassador quoted 1,500, Al Jazeera gave estimates as high as 6,000, and one economist at the University of New Hampshire produced estimates of 5,000, and then 3,100-3,800. In some cases, the Taliban is known to have reported civilian casualties when there were no such casualties at all.[137]

Discrepancies in casualty figures exist between the US and Hamid Karzai's government as well. The US military initiated a raid in the Uruzgan province in Afghanistan in January 2004 to capture Taliban leaders. A firefight broke out and when the shooting ended, the US military claimed to have killed five militants. A report by the Afghani Interior Ministry, however, contradicted the statement, asserting that ten civilians, including women and children, had been killed.[138] Such incidents need to be fully reported with accurate estimates of the civilian casualties. Not reporting them can have the appearance of either not caring about the civilian cost or appear as though the US military is covering it up. Wrong perceptions such as this can hurt the US military's image as a liberating force in Afghanistan, deter the local populace from aiding the coalition, and force Karzai to take drastic action. Should Karzai do nothing when such incidents occur, he runs the risk of alienating himself and appearing as little more than an American puppet.

A report released by the Project on Defense Alternatives, a Washington based think tank, lambasted the Department of Defense for failing to make public the estimates of civilian

casualties in Afghanistan and Iraq. The military maintained that accurate estimates were impossible to calculate and thus of little relevance. The Project on Defense Alternatives believes that between the conflicts in Afghanistan and Iraq, some 6,000 civilians were killed. The report suggests that declining to estimate casualties prior to and during conflict does not prepare the public, or policy makers, for the actual costs of war. Once more, the organization believes that the military stresses the use of high technology and precision weaponry to convince the public that war will result in extremely low casualty rates. The project concluded that the reason for such obscurity was the fear that casualty figures, manipulated by the media, would incite an outcry and a loss of support at home for military action—a fear PDA claims was prompted by the events of the Vietnam War.[139]

It is important to note that Human Rights Watch concluded that just over 100 Afghan civilians had died over two years of US operations in Afghanistan.[140] While the report was critical and accused the military of the indiscriminate use of firepower, the casualty level needs to be kept in perspective. While every loss of civilian life is regrettable, the loss of 100 civilians over the course of two years of intensive fighting where an enemy routinely attempts to hide among the populace is fairly remarkable.

The US faces a broad challenge in dealing with these issues because it has no clear methodology for estimating collateral damage, detecting it, or estimating its scale. The fighting in Afghanistan has shown, however, that in asymmetric wars pilots and UAVs cannot firmly differentiate enemy forces and facilities from civilians and civilian facilities – and that is the case in both urban and rural fighting environments. The same seems to be equally true even of special operations teams on the ground. Independent teams cannot get the full background on suspicious movements and behavior patterns, and groups dependent on local allies often get misinformation or deliberate lies. In balance, special operations teams like the Special Forces' Team 555 demonstrated that groups on the ground can sometimes get much better information on the kind of unconventional combatants that fought in the Afghan War than any form of sensor or airborne platform, but no amount of "fusion" of data from combat aircraft, satellites, UAVs, SIGINT aircraft, and HUMINT on-the-ground presence could fully characterize many targets or distinguish combatants from civilians.[141]

This has led to a situation in Afghanistan in which a large number of civilian deaths have occurred not as a result of errant bombs, but rather as a result of bombs accurately hitting their targets, destroying suspected enemy positions, but killing civilians in the process. In one instance, the US military launched a strike aimed at eliminating Taliban district commander Mullah Wazir. The attack was on target, yet Wazir escaped and the strike killed nine children.[142] By relying in many instances on air strikes instead of ground forces to destroy Al Qaida positions, the US has reduced the opportunities that it has to verify the target intelligence being provided by local Afghan warlords. US military officials argue that in many cases the targets that have been hit are legitimate, but they also concur that it is difficult to distinguish between civilian and military targets in urban areas. Afghan officials contend (and US officials dispute) that on at least three occasions the US attacked villages and convoys because it had received poor intelligence information from local warlords who were seeking to exact political revenge or gain political power. Additionally, observers question the level of force that, in some instances, the US has used to destroy suspected Al Qaida targets.[143]

While precision-guided munitions are more accurate and less likely to stray from targets, the reality remains that they are only as accurate as the intelligence on the ground. During future fighting the US may need to revisit whether the use of air strikes to destroy targets hidden amongst civilians is the most efficient and least politically costly method of fighting the enemy.[144]

The US certainly seeks to minimize collateral damage in broad terms. Like other military powers, however, the US does not attempt to estimate either loss of life or the indirect costs of military strikes, particularly cultural and economic ones. Since the Vietnam War, it has avoided making any public body counts of either military or civilian killed. This allowed Iraq and Serbia to have some propaganda success in making grossly exaggerated claims of civilian casualties and collateral damage in past wars, and the Taliban to make equally exaggerated claims during the current fighting. While many human rights groups have been careful to examine such claims, others have taken them literally, and hostile countries and political factions have done the same.

The US was able to largely avoid the political backlash from civilian casualties and collateral damage during the Gulf War, although exaggerated casualty claims, particularly those relating to the "road of death," were a factor leading to the early termination of the coalition advance and the early declaration of a ceasefire. Since that time, the US has been less successful in countering Iraqi claims related to US post-war attacks, in part because it has decided to address such claims on a strike-by-strike basis without addressing the details.

Both the US and NATO had to address civilian casualties and collateral damage in Kosovo on a daily basis and often made mistaken claims or had to respond by admitting they were unable to confirm or deny many Serbian claims. This often gave Serbia a propaganda advantage during the fighting, although the Department of Defense largely succeeded in dodging the issue in its analysis of the lessons of Kosovo by only issuing its after action analysis in a report to Congress, and by doing so after the issue had lost major media impact. Additionally, the Department of Defense was able to minimize any potential fallout from civilian casualties by using a narrow definition of collateral damage that excluded many incidents. The data on Afghanistan are highly uncertain, but the following instances of collateral damage and civilian casualties seem to have occurred during the most critical part of the fighting:[145]

- *October 8, 2001:* Bombs kill four UN workers in Kabul.
- *October 13, 2001:* Navy air strike misses Kabul airport by a mile and kills at least four civilians.
- *October 16 and 26, 2001:* Red Cross warehouse in Kabul hit by bombs.
- *October 22, 2001:* AC-130 hits civilians in Chowkor Kariz village that do not seem to have had ties to the Taliban or Al Qaida.
- *November 8-10, 2001:* Raids on fleeing supporters of Sheik Omar in Khakriz (north of Khandahar) may have killed 30-70 civilians (Taliban claims 300 were killed).

- *November 26, 2001:* Bomb dropped on Qalai Janghi prison during uprising kills five Northern Alliance troops and wounds five American soldiers.

- *November 29, 2001:* Bombs hit civilian homes in Sanjiri, west of Kandahar.

- *December 1, 2001:* Bombs hit Khazi Kariz, eight miles south of Khandahar Airport, possibly hitting two civilian homes.

- *December 5, 2001:* Bombs hit friendly targets near Shawalikot, 21 miles north of Khandahar. Hamid Karzai and the 5th Special Forces Group are hit by mistake, as well as civilians in the area. Three Americans, nineteen Afghan fighters, and an unknown number of civilians die. Other strikes on Argandab and Sokhchala also seem to hit civilians.

- *December 20, 2001:* An air strike hits a convoy near Khost. Some 12-27 persons are killed.

- *December 29, 2001:* Bombing attack on a weapons depot in a village called Qualai Niazi kills civilians, including part of a wedding party.

- *January 24, 2002:* US special operations soldiers kill sixteen to eighteen in Hazar Qadam. The US Defense Department later admits the dead were innocent civilians targeted by a rival Afghan faction.[146]

- *February 6, 2002:* CIA UAV fires a Hellfire missile that may have hit scrap gatherers near Zhawar Kili.[147]

- *July 1, 2002:* An AC-130 gunship attack on anti-aircraft batteries kills civilians, including a significant portion of a wedding party in the village of Kakarak. The US admits to having fired on four villages in the area. The Afghan government estimates that 40-48 people were killed, and another 117 were wounded.[148]

  Despite initial investigations by Afghan and American personnel, it is still unclear what transpired. According to DoD officials, approximately 300-400 US led coalition and Afghan forces were engaged in an operation designed to locate and capture Al Qaida and Taliban fighters still thought to be active in Oruzgan province, the birthplace of Taliban spiritual leader Mohammad Omar. Intelligence reports had indicated that "high-value individuals" were possibly "operating in the area." As part of the operation, a B-52 bomber dropped several bombs on cave complexes. An errant GBU-31 2000-pound bomb missed its target, however, no persons were injured as a result.[149]

  US officials state that an AC-130 gunship operating in support of the ongoing mission was fired upon and tracked by anti-aircraft (AA) guns numerous times and, therefore, returned fire, attacking suspected AA batteries in six different locations. In the process, numerous civilians attending a wedding party in the village of Kakarak were killed and a larger number were injured.[150]

> On July 6, the US acknowledged that civilians had died as a result of the raid in Southern Afghanistan. However, after an initial investigation, American officials were unable to find a large number of graves and are therefore unable to confirm the total number killed. Additionally, no evidence of an AA gun battery was found in Kakarak, though a truck-mounted AA gun was found roughly ten miles from the village. According to military officials accompanying the investigative team, in addition to GPS and laser targeting devices, US ground forces had confirmed the source of the AA fire. The investigative team did, however, collect shell casings and shrapnel that will be analyzed as part of a large investigation. Additionally, the AC-130 was equipped with a video recording device or "gun camera" and the imagery that it provided might assist investigators in determining what occurred.[151]
>
> The DoD conducted a formal investigation (headed by an Air Force one-star general) to determine the exact sequence of events leading up to and during the incident. Afghan President Hamid Karzai has appointed the Afghan Tribal Affairs Minister Arif Noorzai to lead an Afghan government investigation.[152] Additionally, the United Nations dispatched a team to the region of the incident to investigate damage to the local infrastructure.[153] An investigation into, whose results are posted on the Central Command web site, ultimately expressed regret about the loss of civilian life, but asserted that the responsibility for the civilian casualties must be burdened by the individuals who chose to fire AA weapons at coalition aircraft from civilian areas.[154]

In response to the 2002 incident in Oruzgan Province, the Afghan government issued its most vocal condemnation of a US military mistake since the start of the war. Afghan President Hamid Karzai called on the US and Coalition forces to "take all necessary measures to ensure that military activities to capture terrorist groups do not harm innocent Afghan civilians."[155] Also, Afghan Foreign Minister Abdullah called on the US to re-evaluate the procedure for determining targets and launching attacks, stating, "This situation has to come to an end. Mistakes can take place, human errors are possible, but our people should be assured that every measure was taken to avoid such incidents."[156] For the first time since the collapse of the Taliban government, an anti-American protest was held in the capital city of Kabul, outside of the UN headquarters. [157] Additionally, observers reported increased levels of hostility among the ethnic Pashtun population of Oruzgan Province towards the continued American military presence.[158]

Following the incident in July, Kandahar Governor Gul Agha Shirzai met with the governor of Oruzgan and several provinces dominated by ethnic Pashtuns. The meeting resulted in an announcement by Shirzai that the governors of the region would require the US to contact them for permission before initiating military actions in any of the Pashtun provinces. More significantly, however, the meeting also resulted in the creation of two new, armed militias that will be overseen not by the central government but instead by the regional governors. Though one of the militias is designated to work along with US and coalition forces in hunting for rogue fighters, US officials view the action of the governors as undermining Coalition attempts to create a national army. Additionally, in the event of future instability, the regional governors

could use the new militias as their own security force, similar to the manner in which Afghan warlords utilized their own militias during the internal ethnic fighting that engulfed the nation for a decade.[159]

Despite the best attempts of investigators, the actual details of this incident may never be fully known. However, it does provide further evidence of the shortcomings of current US ISR capabilities. Marine Corps Lt. General Gregory Newbold, director of operations on the U.S. military's Joint Staff, notes that despite intelligence indicating the presence of Al Qaida fighters and possibly leaders in the area, reports did not reveal that a large group of civilians had gathered for the wedding in Kakarak.[160] The incident also reveals the difficulty of successfully locating and capturing rogue fighters, who can take advantage of the rugged landscape to conceal their movements, as well as the willingness of Al Qaida fighters to locate mortars, AA batteries, and other weapons inside areas populated by civilians.[161] In the aftermath of this attack, it may also be necessary for the US to re-evaluate its use of air strikes to destroy Al Qaida positions. When striking at such a wide area and using such heavy firepower, it seems likely that civilians would be killed, yet some observers believe that, based on current evidence, US military officials failed to consider this before executing the attack.[162]

It should be stressed that it is unclear whether there really were civilian casualties in some of these cases and that this chronology scarcely logs high levels of casualties for a campaign involving some 18,000-19,000 air-to-ground weapons.[163] In spite of some efforts by human rights organizations, there simply are no accurate estimates of Al Qaida, Taliban, or other Afghan casualties. It seems possible that total casualties range from 1,500 to 3,000 by late December 2001, but there is no way to estimate such figures or to separate the constant casualties from factional fighting, warlordism, and sheer banditry from those caused by the US and its non-Afghan allies.[164]

At the same time, it makes it clear that the problem is real, and there is little reason to suspect that it will not be even more serious whenever the US must deal with more serious threats or more intensive asymmetric wars.

Designing Weapons to Deal with Collateral Damage

The other side of this coin is that properly designed weapons, targeting, and ISR systems can now greatly reduce the problem of collateral damage and civilian casualties. The global reaction to the fall of the Taliban and Al Qaida shows that the US and its allies can continue to act in spite of enemy propaganda and the use of collateral damage as a political weapon, and that media and human rights criticism that ignores military reality and attempts to make any use of military force impossible has little effect. The media and the public will and should react to every attack that produces any form of civilian casualties, friendly fire, and/or collateral damage. If the world accepts the need for military action, however, it will also have to accept the inevitability of such losses.

The US and its allies do, however, have to demonstrate that they have made a good faith effort to minimize collateral damage and civilian casualties. Ever since Vietnam, the history of

war has shown that each improvement in military capability is matched by demands for higher standards of performance.

This already is leading to steady improvements in weapons and targeting accuracy, the use of sensors to prevent attacks with high civilian losses and collateral damage, and new screening methods for target selection and strike authorization. The US and British efforts to develop smaller precision-guided weapons, like 250-pound versions of the joint direct attack munition (JDAM), is one example. The use of precision-guided, small-diameter bombs (SDBs) offers a way to strike against roughly 70% of the targets that might normally be hit with a 1,000 or 2,000-pound weapon. It offers a way to carry far more munitions per sortie, reduce the number of sorties required, achieve far more lethality per sortie, and still sharply reduce collateral damage. It can also achieve ranges of 60-70 miles when launched at high altitudes. [165]

Miniature cruise missiles with multipurpose warheads, like the Low Cost Autonomous Attack System (LOCAAS), are under development for the same reason, as well as to improve the strike capabilities of weapons like the Predator and future UCAVs. So are so-called "spiral" SDB weapons that would have autonomous or optical sensors and could search a wide area until they were homed in on a specific target. [166]

Virtually every advance supports those advances in ISR capability. That is equally true of the series of major improvements in target selection and review made throughout the air and missile targeting process after the strike on the Chinese Embassy in Belgrade during the air campaign in Kosovo.

Advances in accuracy offer the military the best of both worlds: more lethality coupled with less collateral damage, and they can apply to the delivery of unguided or "dumb" weapons as well. UAVs and other sensors can greatly reduce the need to use artillery to fire into wide areas rather than at specific targets. The B-52s that dropped dumb bombs during the Afghan conflict made use of both far better navigation and targeting capabilities than ever before, but also made the first use of the Wind Corrected Munitions Dispenser in combat to deliver weapons like the CBU-87 Combined Effects Munition (CEM). This is a strap on, $10,000 tail kit that allows delivery with greater accuracy from higher altitudes and can also be used with weapons like Gator mine and the new Sensor Fused Weapon (SFW). It scarcely eliminates the problems of using unguided area weapons, but it does reduce them.[167]

There still, however, are areas where the US can do more. British experiments with weapons designs that deactivate the warhead when systems malfunction or lose their targeting lock are one case in point. Another is the need to come to grips with long-standing problems in cluster munitions and dumb bombs that effectively turn them into mines when they do not explode. The use of improved release systems, navigation and targeting aids, and wind correction can help up to a point, but the US dropped some 1,150 cluster bombs on 188 locations in Afghanistan as of early February.[168] They had many of the same defects as the weapons dropped in Vietnam and the Gulf War, and often produced duds that could be lethal if handled or contacted. This is not a problem that should take three decades to solve.[169]

The Afghan conflict was the first time that the new CBU-103 cluster bomb was used. It is equipped with "course-correcting tail fins" that enable it to compensate for the significant drift that can occur when a bomb is dropped at an altitude of more than 15,000 feet. A new cluster bomb, which has a smaller quantity of more powerful bomblets, is being developed. In an attempt to improve its accuracy, weapons designers have incorporated a heat-seeking device into the new design, which will allow the bomb to more closely track and hit enemy positions.[170]

Pentagon officials estimate that roughly 5% of cluster bombs do not detonate upon impact. The decision to package airdropped food in the same color as cluster bombs further increased the risk that civilian deaths would result from unexploded cluster bombs.[171]

More generally, however, the US needs to examine ways in which it can design its ISR sensors and systems, and intelligence and targeting systems, specifically to minimize collateral damage and civilian casualties and to provide some form of near-real time warning and/or imagery to allow rapid confirmation of whether mistakes have occurred. This does not mean paralyzing operations; it does mean changing design criteria and methods to allow operations to be sustained with both minimal cost to the innocent and minimal political backlash.

One longer-run issue that needs to be addressed is the need for some mix of methodology and technology that can produce meaningful body counts – at least over time. The disastrous emphasis on body counts in Vietnam – with its endless phony casualty figures and pressure to take risks in attacking civilian targets – is scarcely an example to follow. It is fairly clear, however, that if the US does not produce reasonable estimates of its own, others will produce unreasonable and politicized lies. Beyond that, minimizing casualties does require an understanding of what casualties are. Physical collateral damage can always be fixed or replaced, people cannot.

Another task will be to sensitize the media and the world to the fact that Taliban and Al Qaida use of civilian facilities and populations to shelter their forces are violations of the laws of war. Like the Serbs and Iraq, the Taliban and Al Qaida made extensive use of civilians and civilian facilities as human shields. The US and its allies cannot prevent this, but it has to be clear to the world that the moral and ethical problem lies primarily with the forces that engage in such practices and not with the US and its allies.[172]

CBRN Weapons and Attacks

It is now clear that Al Qaida had a major effort underway to examine chemical and biological weapons, and was examining nuclear terrorism in terms of attacks on power plants, radiological weapons, and crude nuclear devices. At least one Indian general drew the lesson from the Gulf War that, "No one should go to war with the US without nuclear weapons." It is equally possible that terrorists will draw the lesson that if they can only launch one major series of attacks, they should not do so without CBRN weapons. States, on the other hand, may learn both lessons. They may see the value of giving proxies aid in developing CBRN weapons, and they may see acquiring CBRN weapons as a key deterrent to US action in asymmetric wars. They may also make the judgment that having the ability to launch on warning or launch under attack

against the US and/or US interests will either deter the US or force it to limit its range of attacks and goals in war.[173]

The US still has not resolved the source of the anthrax attacks that followed the attacks on the World Trade Center and the Pentagon. This raises the prospect that states or other terrorists may piggyback on a conflict in unpredictable ways and that future opponents may see a counterterrorism campaign or asymmetric war as a window of opportunity in terms of US vulnerability and confusion rather than as a deterrent.

This raises major new questions about the future of arms control and the value of existing arms control agreements. It also raises questions about the ability of states and terrorist groups to conduct anonymous attacks with highly lethal or costly CBRN weapons, particularly those of the biological variety. This not only raises the specter that one lesson of Afghanistan is that future opponents should use smallpox (or its equivalent), but it also raises the specter of how the US would deal with anonymous attacks on its economy equivalent to the hoof-and-mouth outbreak in Britain or the swine fever outbreak in Taiwan.

Finally, it raises many of the same questions that Iraqi CBRN facilities and weapons did during the Gulf War. For well over a decade, the US has been developing sensors and targeting aids designed to "look" inside buildings and suspect facilities. It is unclear that any such UAVs or unattended sensors are operational or that they are effective. UAVs can cover traffic going into and out of fixed and hardened facilities, but not activities inside them. CBRN weapons and activities can be dispersed into relatively small facilities, as can many delivery systems and munitions. In many cases, it is impossible to distinguish CBRN weapons and facilities from ordinary weapons and military facilities, and it is equally difficult to distinguish military/CBRN facilities from civilian facilities.

The physical destruction of CBRN weapons and facilities is problematic. Even when CBRN weapons and/or related facilities are located and thus can be targeted, there is the risk that an attack on them will result in unintentional dissemination of CBRN agents. Thus, the top priority in attacking such targets would be to limit the risk of such dissemination rather than to limit collateral damage in the immediate area. The US is attempting to develop munitions that would produce burning effects intense enough to significantly mitigate against that problem. The US is also attempting to develop a less destructive means of containing CBRN materials in the form of sealing foams that would create hardened cases around their targets. At present, however, the possibility that unintentional dissemination of CBRN materials would occur in an attack remains a problem, and had Al Qaida been known to possess those materials the air war in Afghanistan would have been seriously complicated.

Al Qaida and the Problem of Proliferation

While there have been successful efforts to dismantle the Al Qaida network, the group and its affiliates continue to seek means by which to strike the US and its Coalition allies. The proliferation of weapons of mass destruction into the hands of such terrorists remains a very real threat.

Highlighting this threat was the admission by Abdul Qadeer Khan that he sold nuclear technology to Iran, Libya, and North Korea. This extensive clandestine business arouses new fears about Al Qaida's efforts to acquire CBRN weapons and their ability to strike the US, its bases, and its allies. Khan, acknowledged as the "father of the Islamic bomb," sold the technology for profit and it is widely known that money was something Al Qaida had in surplus prior to the coalition's campaign against its assets. Furthermore, it is suspected that Pakistan's military and intelligence service harbor a number of Al Qaida sympathizers and the exact extent of their roles in Pakistan's nuclear program is unclear. It is possible that elements within the customer countries leaked the technology, sold it as well, or could do so in the future.

The revelation that Khan had sold nuclear secrets did not provoke the acerbic US criticism of President Musharraf's regime that many thought it would. It has been suggested that the US was wary that a harsh response that resulted in a severe penalty for Khan, who is a national hero, might destabilize Musharraf's government. A chairman of one Pakistani think-tank asserted, "A.Q. Khan is loved by the common man. Musharraf is hated."[174] Other reports indicate that the decision not to criticize Pakistan for its dealings with Kahn was part of a secret agreement. These sources suggested that President Musharraf would allow US forces on Pakistani territory in the hunt for Osama Bin Laden if the US allowed him to deal with Khan on his own terms.[175]

Though no evidence has been uncovered of a transfer of nuclear technology to Al Qaida, the scope of nuclear technology proliferation makes it more likely for terrorists to be able to acquire components for a device. Bin Laden considers it a "divine duty" to develop such weapons. Ayman al-Zawahiri claimed in March 2004 that Al Qaida had successfully purchased several suitcase-sized nuclear devices from disgruntled scientists in Russia, Uzbekistan, and identified central Asia entities, though there is no concrete evidence that such a purchase occurred.[176] To counter this threat, the US needs to reexamine the Non-Proliferation Treaty (Pakistan is not a member country), how to compel non-member countries to join, how to combat the proliferation activities of non-state actors, and take the lead in closing loopholes while suggesting more stringent guidelines. It may be appropriate to make a push to criminalize the proliferation of nuclear technologies under international law.[177]

V. The Force Transformation Impact of the "Conventional" Phase of the war

There is no easy way to separate the Department of Defense's reaction to the lessons of Afghanistan from its broader force transformation efforts, which began early in the Bush Administration. The Quadrennial Defense Review was issued in the late fall of 2001, before there was time to react to the course of the fighting in Afghanistan. It set six major goals for force transformation: protect the U.S. homeland and critical bases of operation; deny enemies sanctuary; project and sustain power in access-denied areas; leverage information technology; improve and protect information operations; and enhance space operations. All of these goals have some application to the lessons of Afghanistan, however, and the planning and budgeting documents that have been issued since that time reflect both the Department's view of the initial lessons of Afghanistan and its conclusion that the US experience in fighting terrorism has validated many of the conclusions in its force transformation studies.

The "Force Transformation PDM"

While the plans for many aspects of the US force transformation effort are not yet complete, press reports indicate that the US Program Decision Memorandum 4, the so-called "Transformation PDM," called for: [178]

- Some $2 billion for improved satellite communications.
- A major acceleration of unmanned combat vehicle programs and serious examination of new programs to supplement or replace manned combat aircraft. Procurement of more RQ-1 Predators with the ability to fire air-to-ground (AGM-114) Hellfire missiles. Examination of the option of arming them with smaller 250- or 500-pound versions of the JDAM.
- Modification and improvement (including security and survivability) of the Global Positioning System.
- Procurement of much larger numbers of RQ-1 Predator, RQ-4A Global Hawk and other Unmanned Aerial Vehicle intelligence and targeting systems. That could include developments like converting retired manned aircraft to UAVs, or older target drones like the BQM-145, BQM-34S and MQM-34D.[179]
- Make major improvements to their endurance, payload capability, sensors, downlinks, survivability, and launch/recovery systems, including their electro-optical, infrared, and synthetic aperture radar sensors. Possible addition of UAVs to future maritime patrol aircraft. (Approximately 20 of the 68 Predators delivered to date have been lost, largely to operator error or enemy fire.)[180]
- Improvements in space-based radars and imagery systems.

- Procurement and improvement of Tomahawk cruise missile systems.

- Convert at least four more C-130s into gunships, and make improvements to AC-130 special operations combat aircraft and other special operations variants of the C-130, including countermeasures for air defense. Improve video and infrared targeting and surveillance systems and fire-control capability, and refine the data-link systems between the AC-130 and Predator/Global Hawks that were rushed into deployment during the war.[181]

- Procurement and improvement of portable and theater-deployable intelligence and targeting systems.

- Improvements in communications, secure data links, displays, weapon dispensers, and precision weapons to make real time targeting and re-strike capabilities more effective.

- Acceleration of the Airborne Laser theater missile defense system.

- $63 million for upgrading NORAD computers and radars.

- Acceleration of hard target and underground facility penetration weapons. These would replace or enhance the 5,000-pound GBU-28, "bunker buster" bombs and AGM-130s used to attack hard and deeply buried targets during the Afghan War. The Department of Defense estimates that there are some 10,000 hard and deeply buried targets (HDBTs) in the world, that some 1,000 have critical strategic value, and that their number will advance steadily as improved tunneling equipment becomes available. Most are twenty meters or less underground.

  The US is examining ways to add hard target kill capabilities to its cruise missiles. There are unconfirmed reports that one such missile, the AGM-86D, was used during the war in Afghanistan. Other options include thermobaric weapons, the FMU-157 hard target smart fuse, and the BLU-116B advanced unitary penetrator warhead.[182]

- Acceleration of programs to develop unattended ground sensors and long-loiter collection platforms to characterize and monitor activities in facilities. Develop remote sensors for the penetration of caves and sheltered facilities.

It is interesting that virtually every item on this list has some relation to the US experience in Afghanistan, and, to some extent, responds to the lessons of either Afghanistan or the broader war on terrorism.

Defense Planning Guidance and Future Military Strategy

The Defense Planning Guidance (DPG) for 2004 to 2009 that was enacted in May also reflects the lessons that are being learned from the campaign in Afghanistan. Reflecting the Bush administration's shift towards a military doctrine of preemptive action against possible enemies,

the DPG calls for accelerating force transformation efforts by developing and fielding a new generation of weapons that rely on advanced technology to enhance their effectiveness. Secretary Rumsfeld contends that by developing the weapons systems and forces needed to carry out preemptive action, the US will create a new form of forward deterrence that will make enemies think twice about striking the United States. Under the DPG, all branches of the military are ordered to develop capabilities necessary to execute rapid preemptive strikes against enemies.[183]

Under the guidelines established by the DPG, military spending will be focused on addressing five specific needs: countering and combating terrorism and the proliferation of weapons of mass destruction (WMD), enhancing ISR capabilities, developing new methods to protect against and wage cyber-warfare, enhancing space-based military capabilities, and further developing precision air strike capabilities. Specifically, the DPG calls for the development of a squadron of unmanned fighter jets by 2012, as well as the development, by 2009, of a "hypersonic" missile capable of traveling 600 nautical miles in fifteen minutes, thereby enabling it to destroy mobile targets before an enemy can reposition them.[184]

During the fighting in Afghanistan, the US has dropped a significant number of precision munitions. The DPG outlines a future "high-volume precision strike" capability characterized by the use of a large number of smaller, more accurate precision munitions that can be dropped on an enemy from a fleet of unmanned aircraft. Combined with other advances in military technology, these technologies are designed to enhance and further the military's capability to rapidly strike an enemy virtually anywhere in the world.[185]

As a result of the fighting in Afghanistan in which the US frequently targeted Al Qaida cave complexes and bunkers, the DPG outlines the need to develop the ability to conduct "high-volume precision strikes" against an enemy, using laser and microwave-powered weapons. The DPG also acknowledges the need for development of a nuclear, "bunker-busting" bomb that will successfully destroy enemy compounds and supplies of WMD that are hidden far beneath the ground in hardened bunkers. Beyond advanced weapons capabilities, the DPG argues that if a doctrine of preemptive strikes is to be effective, new efforts must be made to improve intelligence capabilities, enabling the US to both become aware of a future threat and more accurately determine and target the strength and location of the enemy. Additionally, based on the experience in Afghanistan, the DPG calls for improving the execution of and training for joint operations.[186]

Shapers of the new DPG cite the successful use of special operations forces and precision air support in Afghanistan as reasons to further develop lighter, stealthier capabilities. The risk remains, however, that in certain military situations, rapid response lightweight forces may not be appropriate. With the fighting continuing in Afghanistan, military planners must be careful not to make blanket generalizations based on what has thus far been a unique war. To do so would risk creating gaps in US military and force capabilities. Additionally, in its rush to embrace the military techniques utilized in Afghanistan, the DPG continues to ignore the political, economic, and social realities that remain as significant problems and roadblocks towards the successful completion of any military operation.[187]

Other DoD studies that are underway focus specifically on developing joint headquarters, the force capability needed to enact new strategies, and the C4ISR technologies needed to support the new strategy.[188]

Afghanistan and the Force Transformation Impact of the FY2003 Budget

The President's FY2003 budget request sets forth a list of additional "force transformation efforts." Those efforts include the following:

- Convert four Trident submarines to cruise missile carriers. It also seeks to capitalize on U.S. asymmetric advantages in developing new classes of satellites—including a space-based radar—and improving existing capabilities and hardening them against attack.
- Initiate development of the DD(X) surface warfare ship, a test bed for future Navy systems. Plans are to insert and test new stealth and propulsion technologies in the DD(X) and to test new manning programs. The budget request asks for $961 million for this effort.
- Spend $1 billion on the procurement and research of unmanned aerial vehicles. DoD wants to spend $154.1 million to buy and arm 22 Air Force Predator UAVs in the 2003 fiscal year. The Air Force has also allocated $170.8 million for three Global Hawk UAVs. There is another $100.7 million set aside to buy twelve Army Shadow UAVs.
- Purchase 70 more Global Hawks and associated equipment for the USAF (at a price of $1.55 billion) and 28 for the USN, which will deploy it in seven systems, each with four aircraft and support elements.[189]
- Accelerate funding of Global Hawk research and the Navy's Fire Scout UAV. The request also accelerates research in unmanned combat aerial vehicles. "These UCAVs are not just UAVs with weapons added….They are combat airplanes built from the ground up, just without pilots." The request also increased funding for unmanned underwater vehicles as well as the DARPA future UCAV program, with a deployment goal for the latter of 2015.
- Transform the old strategic nuclear Triad—land-based ICBMs, manned aircraft, and submarine-launched ballistic missiles. President Bush has announced plans to reduce offensive nuclear warheads from 6,000 to between 1,700 and 2,200. The new Triad is a scaled-down nuclear deterrent, a more deadly and responsive conventional deterrent, and missile defense.
- The overall procurement budget is set at about $72 billion. The Army is set for $13.8 billion, the Navy/Marine Corps for $24.9 billion, the Air Force for $27.3 billion, and $2.8 billion is allotted for defense wide buys. There is also $3.2 billion in the Defense Emergency Response Fund.

- Raise the budget for research, development, testing and evaluation to $53.9 billion in fiscal 2003, up from $48.4 billion this year. That would continue development of the Joint Strike Fighter and accelerate special operations capability. It also funds the restructured V-22 Osprey program.
- Increase science and technology funding by a billion dollars to $9.9 billion, or 2.7% of the DoD budget top line. The additional money would fund Army research on future combat systems, medical technology, and be used on other basic research. Navy funds would go to mine warfare and mine countermeasures, undersea systems, and basic research. The Air Force would look at directed energy, aircraft propulsion, and uses of space.
- Cancel older programs out of line with the transformation strategy, and shift almost $10 billion to other projects. Projects to be cancelled include the Navy DD-21 destroyer and Theater Area Missile Defense programs, the Air Force Peacekeeper missile program, and eighteen Army "legacy" programs. The services will retire some older systems faster, such as older F-14 Tomcats, Vietnam-era UH-1 helicopters, and the Navy's Spruance destroyer class.
- Provide $707 million for the Army's Future Combat System. In addition, the Army would buy 332 Interim Armored Vehicles and 5,631 M-16 rifles. The request budgets $910.2 million for continued development of the RAH-66 Comanche helicopter
- Fund two DDG-51 Arleigh Burke-class destroyers, a Virginia-class attack submarine, an LPD-17 amphibious transport dock ship, and a Lewis and Clark-class auxiliary dry cargo ship. The Navy would also buy fifteen MH-60S helicopters, five E-2C Hawkeye aircraft and 44 F/A-18E/F Hornet fighters. The service will also continue with the EA-6B Prowler electronic surveillance and control craft modernization program.
- Fund twelve more C-17 cargo aircraft, one E-8C Joint Surveillance Target Attack Radar System aircraft, and 23 F-22 Raptor fighters. The budget also funds modernization programs for the B-2 Spirit bomber, the F-16 fighter-bomber, and the F-15E multi-mission fighter.

About half of these force transformation activities have some relation to the US experience in Afghanistan, although the reason behind including them in the budget request was usually to deal with US global requirements and had little to do with Afghanistan per se. The US does, however, now face the practical problem of shaping these programs to fully reflect the lessons of Afghanistan as part of its efforts to develop a coherent approach to force transformation. This is needed not only to redefine missions and war plans, but also to ensure that force transformation does not ignore the war's lessons regarding coalition warfare, interoperability, basing and forward presence requirements, and power projection.

Also, as part of the FY2003 budget, the Bush administration called for the creation of a $19.46 billion war reserve called the Defense Emergency Response Fund. Half of that total -- $10 billion -- was not designated for specific uses until July 2002, when the administration sent an amendment to the 2003 defense bill to Congress. The amendment designates $5.57 billion for follow-on operations, including the maintenance and repair costs for equipment currently

deployed and preparing to be deployed as well as the cost of maintaining camps, airfields, and staging areas currently in use or in development for use in the war. Another $1.88 billion is to be used to replenish the military's supply of precision-guided and conventional munitions, including Hellfire missiles, as well as other bombs needed for continued operations.[190]

In preparing its FY2004 budget request, the DoD is said to be once again evaluating cutting force sizes in an effort to increase the amount of funds available for development of a new generation of weapon systems that it sees as central to transforming the armed forces. Personnel costs totaled roughly 25% of the department's FY2003 budget and exceeded the amount of money spent on the development and purchase of weapons. There are differing media reports as to the expected outcome of an internal personnel study being carried out by the DoD. Some sources indicate that the DoD is examining cutting one Army division, consisting of 20,000-25,000 soldiers, as well as 22,000 Navy personnel, 40,000 USAF personnel, and between 2,000 and 5,000 Marines. However, the head of the project, Chu, has denied this, stating that reports of troop cuts are "a misperception" of his work and that no troop cuts are currently planned. Observers indicate that while specific personnel cuts may not be called for, it is likely that several ongoing studies will re-examine efforts to reduce headquarters staffing, reduce the use of active-duty personnel for certain tasks which do not require their expertise, and whether or not certain services should discontinue groups of specialists and retrain them to perform other tasks.[191]

Beyond the significance of possible personnel cuts and retraining, the development of these reports indicates a continued desire on the part of the defense secretary to press forward with transformation plans that rely on advanced technology and weapons systems and on increased automation to perform tasks previously requiring personnel. Some officials and politicians, however, remain concerned that cutting force size in the midst of an ongoing conflict could stretch the military too thin, especially given the current and potential future demands that peacekeeping missions and future efforts to defeat Al Qaida may place on US forces.[192]

Other Advances in Tactics and Technology

The US is conducting relevant and/or Afghan-war related efforts in a number of other areas, although it is impossible to describe most as the results of the lessons of the Afghan conflict. These activities include efforts to:[193]

- Pursue a broad goal of tightening the delay between real-time intelligence gathering and targeting at the shooter platform to no more than 10 minutes.

- Develop, as part of the FCS, a high-speed data network, integrated both vertically and horizontally, which is difficult to detect and intercept and which will provide secure command, control, and communications.[194]

- Improve relevant central planning and data transfer facilities, like the American Joint Analysis Center at RAF Molesworth in Cambridgeshire, England, and ensure that the US does not become over-dependent on regional facilities, like the Combined Air Operations Center (CAOC) in Saudi Arabia.[195]

- Decrease, over the next ten to twenty years, by 90%, the total manpower needed to run air operations centers, such as the CAOC in Saudi Arabia. While in Desert Storm approximately 2,000 personnel were required to handle air operations, during the conflict in Afghanistan roughly 1,500 personnel have coordinated operations. Air Force Chief of Staff General John Jumper would like to see that number decrease as advanced technology systems, offering significantly improved ISR capabilities, replace human operators. The eventual goal is to make AOCs smaller and more portable, possibly integrating them with Naval assets. This will allow for greater flexibility in conducting air operations in remote locations and decrease US dependence on other nations who must agree to host and allow the US to conduct operations from AOCs located within their borders.[196]

  The first series of technology upgrades, Block 10, has been introduced at Prince Sultan Air Base in Saudi Arabia, and includes new networking capabilities for ISR. As a result of the conflict in Afghanistan, the USAF is examining accelerating he introduction of Block 20 technologies that will bring increased the automation of ISR capabilities, but may temporarily lead to increased personnel levels while new systems are linked. Additionally, efforts are being made to finalize a vision of Block 30 improvements, that will allow reductions in personnel levels at AOCs, while providing commanders a "knowledge wall" of battlefield data, including the location of friendly and enemy forces, weapons systems, and mobile targets. Along with the introduction of new systems, however, the USAF must constantly reevaluate its manpower requirements, as well as its AOC personnel training programs, which will need to address technology advances to allow for the most effective training of AOC personnel.[197]

- Accelerate the development of systems to detect and characterize biological and chemical weapons and attacks. One particularly promising area for targeting and Middle Eastern operations is the use of unattended ground sensors to provide capabilities that can monitor and characterize activity in various complexes and buildings, and possibly in underground facilities.

- Accelerate the development of sea-based wide area missile defenses, and the selection of a suitable replacement to the E-6B electronic warfare aircraft as part of a joint airborne electronics attack program.

- Develop and/or buy small diameter bombs, cockpit selectable fusing options, cockpit selectable "yield" for conventional weapons, and putting dual mode seekers (e.g. GPS and laser).

- Reexamine the value of weapons like the BLU-82 15,000-pound GSX-jellied slurry bomb in terms of hard target kill and psychological impact, and/or re-weaponize fuel-air explosive weapons like the BLU-72.

- Upgrade the communications, display, and munitions systems on B-52 and other US bombers, and US strike fighters, to improve the ability to retarget in mid-flight, and retarget and re-strike during the same mission.

- Improve some relevant subsystems on the RC-135V Rivet Joint signals intelligence aircraft, and U-2.[198]

- Improve the J-8 JSTARS targeting software. [199]

- Develop advanced targeting pods for existing aircraft, and built-in systems for the Joint Strike Fighter, with third generation forward-looking radar sensors and charge-coupled imagers capable of identifying individual weapons at a distance.

- Increase dissemination of electronic and intermediate range (IR) intelligence systems, and other surveillance platforms on various existing airborne platforms such as tankers.

- Replenish stocks of the GPS-guided Joint Direct Attack Munition (JDAM) – the $18,000 kit used to convert regular bombs into smart weapons. Approximately 4,600 JDAMs were used out of a total inventory of 10,000 by December 2001. This is roughly 38% of the 12,000 weapons used as of that date.[200]

- Enhance use of the wind corrected munitions system (WMCD) which was used in the Afghan War to dispense combined effects munitions like the CBU-130 (a weapon with some 202 BLU-97/B cluster bombs) more accurately.

- Complete development of the sensor fused submunition (SFW), with a smart IR-homing capability for anti-armor and vehicle use, and develop improved submunitions with a fail safe option to prevent them from remaining live for extended periods.[201]

- Deploy a dedicated Multi-Sensor Command and Control (MC2A) aircraft by 2009 to support advanced closed loop missions, including ones by stealth aircraft, like the F-22 and B-2A, by 2009.[202]

- Improve three-dimensional mapping and imagery to improve the accuracy of GPS guided weapons and determine the proper angle of attack. [203]

- Begin development of an advanced, next-generation manned or unmanned bomber, capable of surviving extremely advanced developmental surface-to-air defenses like the Russian S-400 Triumf (SA-20).

- Revise the defense communications satellite and MILSTAR problem to handle far great communications densities, integrate information systems, and standardize on one set of terminals and downlink communication systems with different echelons of

access and security.[204] Add lasercom data, and increase support to small scattered US and allied ground units for secure communications, imagery, and targeting data.

- Improve the integration and user friendliness of NRO and NSA data and systems used to support operations, targeting and ISR. [205]

- Modify existing CH-47D Chinook helicopters, adding refueling probes, additional weapons, and radar sensors, allowing them be used by SOF.[206]

- Streamline Navy helicopter fleet from six to two types of helicopters, increasing efficiency and decreasing maintenance costs.[207]

Given the fact that many of the relevant concepts and capabilities were first proposed during Vietnam, one must be careful to state that Afghanistan has probably done more to validate such activities that initiate them. It also seems far more realistic to call such progress part of the "evolution in military affairs" than part of a "revolution." This does not, however, make the end result, and the steady level of progress, any less important or impressive.

Mission Effectiveness versus Mission Intensity: The Duel Between Offense and Defense Continues

"Closing the loop" in near real time intelligence, targeting, precision strike, assessment and re-strike operations, may significantly improve mission effectiveness in ways that reduce the need for sheer force numbers and mission intensity. Not only did airpower substitute in many ways for heavy ground forces, armor, and artillery, precision air power and far better targeting almost certainly substituted for air power numbers. This indicates that deploying even more effective real-time intelligence, targeting, and damage assessment systems can either make a given force steadily more effective in battle, or allow a reduction in force numbers and mission intensity. [208]

There are potential countermeasures to such advances, and ones that are all too familiar to most military forces in the Middle East. They include:

- A shift to more distributed forms of warfare, where terrorists and other opponents seek to present smaller and smaller targets.

- Hide or shield operations by more and more use of collocation with civilians.

- The constant relocation of operations makes it harder to target by function. Under such conditions, no advances in technical platforms will be able to compensate for a lack of reliable human intelligence and/or enhanced presence on the ground.

- Disperse assets before or during a conflict without any normal indicators of combat operations -- just as Iraq dispersed chemical weapons near unmanned air facilities during the Gulf War.

- Deploying distributed mixes of highly advance surface-to-air missiles, like the SA-10 or SA-11, shorter-range systems, sensors, and command and control links, to deny effective long-range air strike capabilities.

- Creating retaliatory forces with weapons of mass destruction that can be launched on warning or when under attack.

At the same time, there are limits to the adaptations that enemy forces can make in response to such US capabilities. Large masses of armor, artillery, and combat air assets can scarcely be distributed. Indeed, moving them may simply make them targets. Distributed forces are weaker forces, and hiding among civilians is a two edged sword that may alienate those you hide among. Buying very expensive and highly sophisticated air defense systems can also be countered with new targeting and strike technologies. Relying on CBRN weapons as a deterrent is only credible if they cannot be targeted, and if it is clear that they will be used.

The Media and Psyops Battle

The US was not prepared to conduct a major information campaign at the start of the war. It was focused on US and Western media and perceptions, lacked area expert and linguists, and experts who understood both the sensitivities and attitudes of the factions in Afghanistan and the nations around it. While senior US officials did make every effort to make it clear the US was fighting a war against terrorism and not against Islam, the Department of Defense initially used words like "crusade" to describe the campaign and was unprepared for the hostile reaction in part of the Arab world because of the Second Intifada and US ties to Israel.

Senior officials within the Office of the Secretary of Defense admitted on background several months after the start of the war that the US had done a much better job of dealing with the media and psychological dimensions of the war in the terms of the reaction of the US and Western media, but that it was slow to focus on the regional media and deal with psychological operations.

It is not yet clear how the US can improve its efforts to deal with regional media, and strengthen and modernize its psyops capabilities, but this seems to be a significant lesson, and one the US must address with more skill in future wars.

As has been discussed earlier, there are fundamentals that must also be addressed. No amount of information management can be a substitute for better methods of minimizing civilian casualties and collateral damage. The same is true of peacekeeping and nation building. No amount of media can be a substitute for the presence of trained experts on the ground that can both work with local groups and factions and help US commanders understand local sensitivities and problems. Understanding and dealing with the local aspects of asymmetric warfare is critical to victory.

At the same time, information warfare has a global, regional, and theater-wide dimension and the US is still trying to find the proper tools to deal with this issue. The White House did create a an interagency Coalition Information Center or "war room" to try to handle the media

and information dimension of the war. This office helped coordinate the US effort to shape the information aspects of the war and address Islamic and cultural sensitivities. It helped deal with issues like speech writing, the symbols used in US documents, US recognition of Islamic holidays, and visits with Islamic officials. While it could scarcely convert the critics and enemies of the US, and the details of its operation as still unclear, it does seem a model for future conflicts.[209] Creating such an office the moment a major conflict seems likely, staffing it with sufficiently senior personnel to reach policymakers, and providing both interagency representatives and regional experts may be a way of ensuring the US government engages the world and not simply domestic audiences and sympathetic allies.

The Department of Defense provided a wide range daily civilian and military briefings, and ensured that senior US officials and commanders kept in touch with the media. This had a powerful impact on domestic and Western perceptions of the fighting. In general, however, it had far less successful in communicating in regional terms. Its handling of issues like friendly and civilian casualties and collateral damage remained awkward -- in part because it simply did not have accurate data on a timely basis. It lacked the expertise to work well with regional media and support foreign broadcasts and media in local languages. In contrast, the Voice of America often seemed to lack suitable military expertise and information.

The Department of Defense's attempt to create an Office of Strategic Influence was an effort to create a new structure to manage this part of the conflict. However, its very title and the way in which it was proposed created the image of an "office of propaganda," fears it would be used to issue lies and carry out deception campaigns, and so much hostile reaction that the idea had to be abandoned.[210] In any case, it is far from clear how this office would have interacted with the role of the US State Department and activities like the Voice of America, or how it would have carried out systematic "information" or propaganda efforts to deal with the US and foreign media and public opinion.[211] The basic concept seems sound in many ways, but the execution will need to be far more careful and better planned.

Theater efforts to deal with these issues were more successful, and having Green Beret, Special Forces, and other US military personal on the ground to improve relations and win over the "minds and hearts" of the Afghan people proved to be critical. The US used both psyops teams and specially trained military personnel in the Afghan countryside, to search for possible political problems, interact with local military leaders and village elders, and assist Afghan civilians in distress. By interacting with the civilian population, these psyops teams helped create local support, and reduced support for Al Qaida and the Taliban. Military and diplomatic efforts to reach out to the media, and deal with local problems in sensitivities, proved to be equally critical. In a number of cases, however, the US was badly short of personnel with the proper skills and area expertise and was slow to recognize that the political dimension of the battle was as critical as the tactical dimension.

The US military services also have a long tradition in talking about area expertise and information warfare and then of underfunding and undersizing such efforts, leaving them out of contingency plans, and making them poor career paths. Like intelligence analysts and HUMINT, talk is cheap and action is often lacking. Most of the discussion of "netcentric warfare" for example ignores the critical importance of having military area experts, Psyops experts, and

trained teams to work with coalition partners. It focuses on the physical dimension of targeting and not on the personal, psychological, and local political realities of netcentric, asymmetric, and coalition warfare. Even military literature tends to focus on the "snake eating" aspects of special operations forces, such as the Green Berets, who work in the field with coalition allies. The fact that many "snake eaters" have master's degrees and can act as linguists and intelligence officers is often ignored.

The fact remains, however, that Afghanistan is only one recent conflict that shows that no revolution in military affairs can be technology-based. Advances in technology, in areas like ISR and precision weapons, must be coupled not only to the integration of HUMINT and better intelligence analysis skills, but to political and psychological warfare, military advisory efforts, peacekeeping efforts, and civil-military operations at every level -- and especially at the theater and tactical level in the field. One only has to mention the possibility of new conflicts involving Iraq, the Taiwan Straits, and Korea, or involvement in peacekeeping in cases like the Second Intifada, to mention the point. It is also pointless to talk about tactical interoperability with allies in asymmetric warfare, and coalition warfare with allies from other cultures, without addressing such issues.

There will always be limits to what can be done. No amount of psyops and information warfare can persuade enemies, create nothing but friends, or disarm critics. At the same time, the US government as a whole, and the Department of Defense in particular, needs to give these areas of activity a higher priority, organize more formal and lasting structures to deal with these aspects of conflict, and create pools of the necessary mix of expertise that can be rapidly assembled and put into action the moment a conflict seems likely. Force transformation cannot be fully successful without such an effort, and asymmetric war will always present special challenges in winning the information battle.

It must also be said that war does involve deception, issuing half-truths, and sometimes lying. In blunt terms, it is better to lie than kill – whether this means the US and allied forces in combat, civilians, or the enemy. The problem is to strike the proper balance and only use such aspects of information warfare and tactics when they are really necessary. Finding this balance will never be easy and there will always be failures. However, creating a clear structure for handling such issues, and real expertise, is one way to ensure the US makes the best possible effort to use information warfare, deception, and psyops effectively and wisely.

US Marine Corps, the Osprey, the AV-8B, and Non-Littoral Warfare

The US Marine Corps faces a potential crisis over the reliability and cost of the Osprey, the readiness and effectiveness of the AV-8B, and the need to modernize many aspects of its transport helicopter, combat aviation, land systems, and amphibious systems. In spite of the increase in defense spending under the FY2003-FY2007 defense program, it is not clear that the US Marine Corps will get the funding it needs to be able to properly sustain air operations in a major regional contingency like Iraq. Some long overdue force improvements like adding the LITENING 2 infrared targeting pods to the AV-8B will help in some ways – although not necessarily correct range, sustainability, and reliability problems.[212]

At the same time, its role in Afghanistan raises issues about the need to plan for more non-littoral operations, and to create real special operations capabilities with language, area, and advisory expertise. The success of US Army Special Forces, Ranger units, and Marine Corps forces in Afghanistan may well show that that the so-called lessons of Task Force Hawk, and the failure to commit US Army light and attack helicopter forces in Kosovo, may not be lessons at all, but rather the result of political decisions and unique training and readiness problems. Certainly, the US Army's ability to airlift and drop more than 200 rangers and intelligence officers into Taliban controlled territory in Operation Rhino, on October 19, 2001, indicates that properly planned assault operations can be very effective. More importantly, the AH-64 emerged as a critical weapon and provided critical close air support in the fighting at Shah-e-Kot.[213]

There seems to be a good case for examining how force transformation, and a shift to longer-range strike and airmobile operations, should affect the future of the Marine Crops. In particular, it is not clear that present programs call for a proper level of modernization in attack helicopter and airmobile forces, and for improving their capability to conduct counterterrorism and asymmetric warfare missions –missions that seem likely to be a key aspect of future combat in the Middle East.

The Use of Carriers and Surface Ships as "Bases" for Special Operations Forces and Land Operations

As successful as USN carrier operations were during the fighting in Afghanistan, they were heavily dependent on USAF air assets based in Bahrain, Qatar, the UAE, and Oman. Even during the Gulf War, questions arose about the need for longer-range carrier strike attack aircraft that could carry more weapons, deliver them with maximum accuracy, avoid having to return with munitions loads or dump munitions, and reduce the burden on USAF refueling assets.

The Afghan campaign saw the use of the aircraft carrier Kitty Hawk as a forward staging base (AFSB) for special operations assets. These included more than 1,000 personnel from the Navy SEALS, US Army and USAF special operations units, Army Green Berets, 160th Special Operations Aviation Regiment, and the rotary aircraft that accompany these forces such at the MH-60 Blackhawk, MH-47 Chinook, and MH-53 Pave Low.[214] This allowed better command and control of special operations forces, provided joint basing and command facilities, and allowed for better management of helicopter assets. At the same time, however, it reduced, by one, the number of carriers available for standard operations, decreased overall Navy strike capability, affected training schedules, and forced other carriers to compensate for its absence by extending their own deployments.[215]

The ability to transform a carrier into a mobile piece of sovereign US territory is useful, but the Navy is exploring options that will allow this to occur without affecting overall carrier strike capabilities and readiness. One option being considered is delaying the decommissioning of the USS Constellation and refitting it for use by special operations forces. Another option involves taking a large medium speed roll-on/roll-off ship and easily converting it to handle helicopters in addition to it current transport and cargo capabilities. A final option is to lease a commercial vessel and modify its hull to meet the necessary specifications for use as an AFSB.

It should be noted in this regard that far too little attention seems to be given to using the larger amphibious ships of the Marine Corps for this kind of mission, and possibly for relatively parochial service reasons. There will be many contingencies, however, in which the US will need its entire pool of active carriers without needing its entire pool of amphibious operations. A truly joint approach to this issue would examine the amphibious option. Moreover, using Marine Corps amphibious vessels in this regard might help push the Corps towards creating true special operations units and integrating their operations with the other services.

Regardless of which option is chosen, the use of carriers as AFSBs represents an evolution in the role of the carrier in military operations, and represents the military's desire to increase US power projection and strike capability across the globe, thereby complementing attempts to create a new forward deployed military deterrence against future enemies.[216]

The experiment in use of AFSBs is part of ongoing efforts by the Navy's Deep Blue Operations Group, which is charged with the task of examining and developing new weapons platforms and systems, sensors, and tactics to increase US capabilities against Al Qaida and other unconventional opponents. Deep Blue is specifically analyzing how to further integrate SOF into future Navy combat missions and operations. Additionally, it is evaluating options for increasing the deployment time of destroyer and cruiser squadrons from twelve to eighteen months.[217]

As part of its efforts to increase the role of special operations in Navy operations, the Navy has been working on developing and deploying mini-subs, designed to carry up to eight SEALs with scuba and combat gear. Currently, SEALs are deployed in open vessels where they are exposed to both the elements and possibly enemy fire. The mini-sub would solve this problem, providing SEALs with a more secure transport environment. The development and deployment progress for the project, however, is far behind schedule and far over cost..[218]

At the same time, Afghanistan illustrates a basic question about the cost-effectiveness of using nuclear submarines as platforms for small special operations teams. The argument for giving such expensive ships more mission capabilities if they are needed for other purposes may be a good one. The idea that such small mission elements, with such limited ability to cover the world, are a justification for maintaining and tailoring SSNs for this role seems to be more a desperate effort by the Navy's submariners to maintain the size and prestige of their part of the Navy than anything approaching a cost-effective use of funds.

True Jointness for the Navy and Marine Corps

The fact that carriers were again so important to fighter attack missions illustrates the need of the Navy and Marine Corps to more forward as quickly as possible in implementing several of the nine capability goals the US Navy identified in its Seapower 21 study and the March 2002 draft of its force transformation plan: "Power and Access From The Sea."[219] These include goals with obvious relevance to Afghanistan like "persistent ISR," "Time-critical strike," "compressed deployment and employment time," "offensive information operations." At the same time, any reader of such Navy material has to conclude that it is still relatively parochial and seapower, rather than joint operations oriented.

The US Army and USAF are scarcely free of service parochialism, but the Navy's literature does not truly address flexibility and depth of operations, and the need to support the other services in joint warfare. This is particularly dangerous at a time when fleet size continues to shrink at a rate that could produce a battle fleet fewer than 260 ships.[220] There are good reasons to question the sheer scale and rate of such downsizing, but the Navy's natural desire to preserve its most advanced ships and technological edge seems to have led it to turn its force transformation exercise into a study of how it can best advance seapower, and not how it can best deal with joint warfare in cases like Afghanistan, Iraq, Korea, or a major attack across the Taiwan straits.

Carrier Operations and Aircraft Performance

At the same time, the US Navy and Marine Corps need to closely examine the real-world performance of the Joint Strike Fighter (JSF) in the light of this history, mission requirements in the Middle East, and possible reductions in the ability to base USAF tankers and other support aircraft forward in their present numbers. This does not seem likely to not mean radical changes in the role of the carrier per se, but it does mean rethinking these aspects of USN and USMC combat air operations and particularly the capabilities and associated systems of the Joint Strike Fighter to see how these aspects of sea-based strike capabilities can be improved over time.

Closing the loop in terms of the ability to improve targeting and the Navy and the Marine Corps' ability to use airpower to deliver precision guided munitions effectively and with maximum strategic and tactical impact, is of even more value in carrier than other air operations. There are finite limits to carrier sortie rates, both in terms of peak and sustained operations. The fact that three carriers sustained an average of under 70 attack sorties per day during the peak of the Afghan fighting is in some ways an illustration of this point.

So is the fact that the US Navy flew 4,900 of the 6,500 strike sorties flown between October 7 and December 17 2001, or 75% of the total – and struck at an estimated 2,000 mobile targets -- but delivered less than 30% of the ordnance. As of June 2002, this ratio remained largely the same, with the Navy estimating that while it flew 75% of the total sorties during the Afghan conflict, the USAF dropped 75% of the total ordnance from heavy bombers.[221]

The fact also remains that "antique" B-52s and B-1s flew 10% of the missions from Diego Garcia, but delivered 11,500 of the 17,500 weapons dropped – 65% of all weapons dropped and 89% of all weapons dropped by the USAF. While the bombers dropped the vast majority of the 6,500 500-pound dumb bombs used, they also dropped roughly half of all the guided munitions.[222] It is far from clear that bombers could operate as easily in a less permissive air defense environment, but the same is equally true of carrier strike aircraft.

Making individual sorties more effective is not only the most cost-effective way of dealing with these limitations, it also is the best way of dealing with the complications of a steadily increasing need to reduce civilian casualties and collateral damage, and deal with steadily more complex asymmetric wars.

Cheap Cruise Missiles and Naval Strike Power

While no precise unclassified data are yet available, it seem clear that GPS-guided cruise missiles were far more reliable and accurate than the TERCOM-radar mapping versions used in the Gulf War, They were also much easier and more flexible to target, and had much less predictable flight paths.

At the same time, the Afghan War again raises questions about the sheer cost of the cruise missile, and the best way to arm the kind of "arsenal ship" represented by the DDX. It is one of the ironies of the cruise missile that that the Navy needs more and more long-range strike assets, but that only a relatively few targets merit strike systems that cost nearly $1 million a round. The Navy seems to have a very high regional priority for cost-engineering some form of cruise missile that comes closer to the cost level of $200,000, or less that $1 million or more.

Finding Adequate Electronic Warfare Assets

The continued delays in replacing the EA-6B, and what may be serious engine life problems, also illustrated the need to rethink carrier strike operations in terms of the ability to deliver Afghan-like persistence over target with suitable electronic warfare protection.

The problems with a limited force of EA-6Bs also raise general questions about the combined capability of the US Navy, USAF, and US Marine Corps to deploy enough electronic warfare assets. This already was a problem in Kosovo, and it is far from clear that current programs will succeed to the point where they ensure future a survivability in an air environment where nations have dense surface-to-air missile assets in some areas, and other threats like Iran may acquire systems like the SA-400. The kind of permissive environment that allowed aircraft, like the AC-130, near freedom of operations over Afghanistan, may not exist in future contingencies in the Middle East.

The Marine Corps, the LHA-X, LHD-X, the Army, and Maritime Pre-positioning

Amphibious capability and maritime pre-positioning may become even more important in the future in the Middle East, if the US cannot establish the kind of support for coalition operations it needs from Egypt and the Gulf States. The US also faces a potential legal problem in terms of the British ability to maintain sovereignty over Diego Garcia. At the same time, as the Army lightens its power projection forces, this raises questions about the future force mix and role of Marine Corps forces, and the extent to which amphibious ships and pre-positioning ships should support a given mix of Marine Corps and Army forces.

These are scarcely issues that affect the Middle East alone, but any regional force planning exercise should examine force transformation options for changing the overall mix of Marine Corps and Army land forces, the possibility of standardization on some equipment like LAVs and light artillery, and new mixes of amphibious, and maritime pre-positioning capability that could be more effective than the present mix of capabilities in the Mediterranean, Indian Ocean, and the Gulf.

The increasingly awkward and artificial split between an expeditionary Marine Corps and any Army seeking to transform itself to perform the same mission also raises serious questions. The Marine Corps has historical reason to fear that transforming itself to perform sustained missions in addition to amphibious and littoral warfare can lead to "green eye shade" challenges to its independence and force size. There does seem to be an endless supply of accountants who ignore the unique and proven combat capabilities of the Corps on narrow cost-effectiveness grounds. Nevertheless, if the Army needs to go light and fast, Afghanistan indicates the Corps may need to go deeper, go land, and have more firepower and sustainment.

At the same time, it is again worth pointing out that the amphibious fleet and ships in the present Amphibious Readiness Groups can be used more flexibly. The use of the Kitty Hawk to provide a base for special operations forces is only one way of providing such a capability. The Key West agreement defining the present roles and missions of the services has no functional meaning. If Army forces can make better use of Navy platforms than the Marine Corps in any given contingency, they should do so. Conversely, the US should not pay to convert US Army units to light forces where the mission can be performed by a restructured set of Marine Corps forces with the capability to sustain operations for longer periods and heavier equipment. In any case, these factors need to be considered in designing both future amphibious ships and prepositioning ships like the Military Sealift Command's Army Large Medium-speed Roll-on/roll-off (LMSR) logistic ship.

The raises the question of seeking a pattern of force transformation where maritime and land prepositioning can provide a more standardized equipment mix that can be used by both the Marine Corps and the Army. A capabilities-based force, emphasizing rapid expeditionary operations and lighter weapons, would be far more flexible if the US Army and Marine Corps systematically became more interoperable and the ability to deal with multiple simultaneous contingencies and ones in unexpected areas would be much greater.

The US force transformation exercises seem to have avoided asking any fundamental questions about the overall Army-Marine Corps force mix. Afghanistan indicates that these questions need to be asked.

The Military and Psychological Trauma

The extreme psychological effects modern warfare has on soldiers first gained attention during and after the Vietnam War. Many soldiers who came back from Saigon were haunted by what they had witnessed, had difficulty readjusting to civil society, or faced other emotional and psychological difficulties. It was suggested that the nature of the Vietnam War, an ultimately highly unpopular conflict, a high casualty rate, lack of clarity in the public's mind about the war's purpose, large numbers of drafted soldiers, and intense criticism upon the return home, was psychologically unique.

While few would argue that the conditions in Vietnam did not contribute a great deal to this trauma, the very nature of modern warfare undoubtedly played a role. Modern technology can produce a tremendous amount of carnage from great distances on today's battlefield. Soldiers are not naturally equipped to mentally handle what they witness. This proved true after

the Gulf War, where many soldiers came home with psychological impairments that have been broadly categorized as 'Gulf War Syndrome.'

The conflict in Afghanistan, though it has produced relatively few fatalities, reveals that the military has done little over the years to help soldiers cope with the mental strains of modern warfare. According to the head of the Landstahl Regional Medical Center in Germany, Colonel Rhonda Cornum, her hospital alone treated 2, 103 soldiers who experienced psychological problems caused by their tour of duty in Afghanistan. The colonel estimates that eight to 10% of the casualties that required evacuation were those experiencing psychological problems. If the military intends on rotating troops in and out of dangerous theaters in support of nation building, which will certainly take years, the military needs to examine what causes these psychological problems and how to combat them.[223]

US Army and Future Combat System

Afghanistan also raises broader questions about the US Army force mix. While the Afghan War is being used to justify the US Army's effort to transform its present armored and mechanized power projection forces into forces with much lighter armor and artillery and which can be moved and deployed much more rapidly, it is far from clear that the Afghan conflict really provides reason for this action, or that even an increased level of defense spending will allow the US Army to accomplish such a force transformation on a timely basis.[224]

The FY 2003 budget request encourages some important programs and cancels others. It calls for procurement of 332 Interim Armored Vehicles ($935.9 million) and the creation of a new six-brigade force based upon 20-ton wheeled vehicles. This plan calls for one brigade is to be able to deploy anywhere in the world by C-130 within four days, and a four brigade division within 30 days. [225]

Additionally, the Army will spend $717 million on the development of a Future Combat System to create a far more advanced rapidly deployable set of Army ground forces – evidently to be deployed at some point well beyond 2010.[226] Other improvements are planned occur in areas like unmanned ground combat vehicles and medium tactical vehicles, although the experience in Afghanistan indicates that much of the planned fleet may still be too heavy, too large, and lack the needed all-terrain mobility for a similar contingency.[227]

To help fund these changes, the Army is canceling some eighteen programs during FY2003-FY2006 because it says they do not fit into the future objective force.[228] Some are heavy systems like the Crusader that do not affect the Army's ability to meet the need for more effective light forces demonstrated in Afghanistan. About half, however, are light systems or programs like the Battlefield Combat Identification System that do seem to mesh with the lessons of the conflict.

At the same time, the Army will still spend a great deal on older, heavy, legacy systems.[229] It also does not seem to have clear plans for Army aviation: No new attack helicopter is in sight, and the Comanche has been cancelled, although improvements will be made to the AH-64A/D attack helicopters. The integration of UAVs and UCAVs has been encouraged by the

Army's experience in Afghanistan but it is far from having a meaningful force plan to make use of such systems.

The key question is whether the Army can actually resolve its internal debates and debates with the Office of the Secretary of Defense, and manage a smooth transition to more mobile forces and lighter equipment.[230] It could well end up with a Future Combat System that may desirable but takes far too long to actual deploy, and by remaining dependent on an awkward mix of legacy and of interim systems many of which would be too heavy and others of which would by light but too large to produce any saving in air or sealift because they would be cubic, rather than weight limited. For example, as of March 2002, eight of the ten new "light" Stryker armored vehicles were still too heavy for airlift in a C-130.[231]

Special, Light, and Air Assault Forces

In contrast, US Army Special Forces and Ranger units illustrate that the so-called lessons of Task Force Hawk, and the failure to commit US Army light and attack helicopter forces in Kosovo, are not be lessons at all, but rather the result of political decisions and unique training and readiness problems.

Certainly, the 101st Airborne and other light and highly mobile US and allied ground troops had consistent success wherever they were engaged, even under near worst case conditions like the opening engagements in Operation Anaconda. Attack helicopters proved to be a rapidly deployable, survivable, and highly effective asset.

The role of the AC-130 has had so much public exposure that it scarcely needs further analysis. Special Forces have been of critical importance, however, in a number of other areas. Two small Special Forces A Teams played a critical role in allowing the US to work with friendly Afghans and in illuminating targets with an effectiveness that no amount of ISR technology could possibly have equaled.[232] Larger elements of US and allied special operations forces have played a continuing role in operating against Al Qaida and the Taliban in areas where the local Afghans are potentially hostile than other forces could not play without massive additional manpower and support, as well as in the border area of Pakistan and several Central Asian states.[233]

As has been noted earlier, Special Forces provided a critical element of coalition warfare in training Afghan forces and in providing local intelligence. They also, however, played an equally critical role in keeping Afghan factions apart and in dealing with local rivalries and tensions. Nothing could have avoided serious problems in this regard, but the end result might have been disastrous if Special Forces had not mediated and kept various factions apart.

Even the US Army's ability to airlift and drop more than 200 rangers and intelligence officers into Taliban controlled territory in Operation Rhino on October 19, 2001 indicates that properly planned airborne operations might be effective, although this was more an exercise in psychological warfare and military "showboating" than a serious military operation.

It seems that a good case can be made for expanding special operations forces, modernizing their equipment, and tailoring attack helicopter and airmobile forces for counterterrorism and asymmetric warfare missions.

Certainly, the fact that the combined impact of Afghanistan and a small operation in the Philippines seriously depleted the total inventory of MH-60Ks and MH-47Es due to minimal combat losses and accidents indicates that the US had badly undercapitalized its Special Forces before the war began.[234] Delays in upgrading the MH-47s and MH-53 Pave Lows may well have contributed to these problems, although these were partly the result of the long delays in delivering the CV-22. There were also lesser equipment problems like the fact the two Special Forces teams that played a critical role in targeting early in the conflict initially had laser illuminators but not the equipment needed to provide accurate GPS coordinates for targeting purposes.[235]

While press accounts are uncertain, the US Special Operations Command (SOCOM) has asked for major new resources as the result of events in Afghanistan and the rest of the war on terrorism. It sought a budget of $4.89 billion in FY2003, some $890 million more than in FY2002, and projected a rise to nearly $6 billion in FY2003. It nearly doubled its procurement request from $400.5 million to $776.8 million and raised its RDT&E request from $392 million to $431 million. Largely as a result of Afghanistan, the US Army began examining requirements for:[236]

- Lightweight counter mortar radars that two soldiers can carry in parts and assemble in 30 minutes.
- Collapsible UAVs that are man- or small vehicle-portable and are suitable for warfare in both natural and built environments.
- Better, smaller, lighter, longer-range, and air droppable laser designators.
- Improved direct field communications in urban and rugged terrain.
- Better and dedicated designs for light all terrain vehicles. Special Forces had to buy Toyota trucks and use recreational four-wheeled ATVs made by the Polaris Corporation. The HMMWV proved to be too large for local roads and terrain and made the user a highly visible target.
- Lighter, smaller, and more enduring batteries.

There also are several issues regarding the future role of Special Forces that the war in Afghanistan indicates need urgent examination. While some of the issues involved do not need public discussion, there seems to be an equal case for reexamining the role that CIA operations should play, and the interface between the CIA and Special Forces as part of this examination.

The same is true of how Special Forces are commanded and integrated into policy. At present, there seems to be a gap between the service commands, military command of SOF, role

of the civilians in SOLIC, and the policy offices under the Secretary. In practice, it is clear that Special Forces are primarily a tool for joint warfare, but the issue of exactly who is in charge at the top is one that needs to be resolved in a way that puts someone clearly in charge. The last thing on earth that the Special Forces need is either an overcomplicated chain of command or one that is over-politicized.

As has been noted earlier, the role of the Marine Corps in special operations is also an issue. Even before the fighting in Afghanistan, the Marine Corps had decided to create a specialized combat unit similar to the Army's Rangers and Green Berets, which was to be committed to the US Special Operations Command. The first 42 Marines were sent to SOCOM in January 2002.[237]

While the Corps' post-Afghan special operations objectives have not been established, a main area of focus will be enhancing the Corp's high-speed special operations and reconnaissance abilities. Given the level of joint operations the Marine Corps engaged in with Army and Navy special operations forces in Afghanistan, the creation of a Marine special operations force that can more closely interact with other special operations forces is a natural next step that will allow for better execution of future joint missions while decreasing the communications and information problems that can sometimes occur in operations involving forces from multiple services.[238]

Global, Regional, and Theater Command

The Pentagon is already examining ways to create some form of global command is needed to coordinate the new battle against terrorism and asymmetric warfare, and better ways to solve the complex problem of tying intelligence, coalition warfare, the political-military aspects of such wars, and the need to coordinate new forms of air ground operations. Secretary Rumsfeld has such an effort underway.

Afghanistan shows, however, that creating an effective regional and in-theater command structure is equally important and a critical factor in making optimal use of ISR and precision weapons assets. In retrospect, modern communications and ISR assets did not allow for effective command from remote locations, and factors as simple as the differences in time zones and a lack of satellite bandwidth became problems. At the same time, creating large, fixed facilities like the CAOC in Saudi Arabia created political and access problems and meant using facilities tailored for other purposes. This argues for a more forward and expeditionary approach to regional and theater command. It also argues for sea-based joint – rather than Navy-Marine Corps – command capabilities.

At the same time, much of the US combat experience in Afghanistan argues for joint, rather than service, commands at every level, and for using ISR and C^4I/BM assets to improve support to the theater and tactical commanders rather than as a means to try to mange the war from Washington or a distant regional command. Technology creates a natural and destructive tendency to try to micromanage from the rear, and add or centralize layers of decision-making and increase the time for decision-making. Effective netcentric and near-real time warfare, however, requires virtually the opposite use of technology. Line of sight command may be

obsolete, but forward and on-the-scene command is not. The National Command Authority that manages least, manages best, as well as produces a major saving in the communication burden and sheer bandwidth.

Counter-proliferation and Preemption

The problem of CBRN warfare has already been addressed in terms of targeting and weapons requirements. The discovery of a large-scale Al Qaida effort to develop CBRN weapons – as well as ongoing proliferation in nations like Iran, Iraq, and North Korea – illustrates the steadily growing importance of offensive counter-proliferation capabilities, and preemption or immediate, time-urgent attack the moment combat begins.

Preemption and large-scale initial destruction is not something that can be advocating carelessly, or lead to the use of weapons without concern for political sensitivities, civilian casualties, or collateral damage. Proliferation and CBRN threats do, however, fundamentally change the risks and values of war. Proliferators give their enemies the right to preemption and first strikes simply by proliferating, and the axiom that the only way to go to war with the US is with the possession of nuclear weapons is one the US must aggressively counter, regardless of whether a nation or terrorist movement is involved.

Waiting for enemy assets to be dispersed can also create an impossible tactical burden. It is worth noting in this regard, that the US flew some 2,400 sorties searching for and trying to strike at dispersed Iraqi Scud missiles during the Gulf War. On some 42 occasions, US aircraft spotted a launch plume and made eight actual attacks. Nevertheless, neither Coalition airpower nor special operations forces damaged a single Scud, and Iraq was able to fire some 88 Scuds against Israel and Saudi Arabia.[239]

The threat of biological warfare is particularly serious, and the US and its allies needs to rethink internal security planning, public health response, and defense efforts to deal with the broad range of CBRN threats. The treatment of hoof and mouth disease and “mad cow” disease is almost a model of how not to deal with such cooperation, and a warning of how much more effort is needed to deal with both time urgent tactical and the broad spectrum of global threats.

That said, it is one thing to have a doctrine and plans, and quite another to have a capability. Any form of attack on CBRN and their delivery system assets must involve meaningful targeting capability, the proper weapons and destructive means, and careful consideration of civilian and could not carry out a successful attack on Iraq’s CBRN assets at either the time of the Gulf War or Desert Fox. It had no idea of what to target at the beginning of the Afghan conflict.

Moreover, the very prospect of such attacks pushes other countries to create launch-on-warning (LOW) and launch-under-attack (LUA) capabilities in a “use or lose” environment as well as organize and preposition assets for terrorist and unconventional attacks.

Rethinking Arms and Export Controls:

Much of the debate over the CW, ABM Treaty, BWC, and CTTBT has avoided coming to grips, in detail, with the threat of asymmetric attacks and terrorism, and has a history of focusing on large-scale conventional war fighting. The same has been true of export controls. A joint effort at comprehensive review of how to change arms control agreements and export controls -- looking at the CBRN and advanced technology threat as a whole – is needed to develop a more effective common strategy.

At the same time, it is a dangerous illusion to assume that any revision in either export controls or arms control agreements can deal with the problem of chemical, biological, and possibly nuclear proliferation. The literature on this subject is more well-meaning than technically competent, and there seems to be little effort to carry out realistic net technical assessments of how rapidly the dissemination of biotechnology, pharmaceutical, food processing, and other related skills and equipment – coupled to advances in areas like genetic engineering – will allow most governments in the developing world and many terrorists to create biological weapons with little or no warning and with nuclear levels of lethality. The same is true of somewhat similar trends affecting the ability to make third and fourth generation chemical weapons and assemble a nuclear device if fissile material can be obtained from the outside. Similarly, covert delivery means are far easier to create than ballistic missiles, and may often by a far more desirable method of delivery.

The efforts of Al Qaida may have been as badly organized as those of Aum Shin Rykio, but they are a warning and not a guarantee for the future. Indigenous proliferation, possibly under breakout conditions, with limited or no warning, is becoming a global reality.

Other Lessons and Issues

There are several other areas where lessons, or at least important issues, seem to be emerging or to have acquired higher priority because of the US experience in Afghanistan.

Additional Army Lessons

In addition to the lessons previously mentioned, the following lessons can be drawn from the Army's experiences during the fighting in Afghanistan:[240]

Communications

- Need for smaller, lighter, higher-bandwidth communications systems that are easily transportable.

- Afghanistan has shown that mountainous terrain can interfere with standard FM, line-of-sight communications. This problem must be resolved, or alternative advanced communications systems must be developed.

- Need for more frequent updates of "operational picture," so that ISR data can be of maximum benefit.

- Developing interoperability between digital communications systems must be priority.

- With more access to more information also come additional problems, both in the field and at the command center.

Operational Intelligence

- Understanding the terrain and the battlefield layout continues to be of importance in anticipating future enemy actions.

- New, more mobile reconnaissance forces must be developed to assist in verifying intelligence from other sources.

- UAVs can be used not only for intelligence, but also to fulfill command and control needs.

Fire Support

- In certain situations, air support for ground operations was not very effective. Lightweight, more mobile artillery could respond more rapidly and more effectively.

- Due to the high altitude, AH-64 Apache helicopters could not hover for lengthy periods of time and were forced to fire while moving, requiring coordination between troops on the ground the helicopter crew. That said, Major General "Buster" Hagenback has described the Apache's performance as being "as close to one shot, one kill as you can imagine."[241] Additionally, Claude M. Bolton, Jr., described the Apache's performance as exceptional, "even when hit by ground fire and losing oil pressure."[242]

Engineer Operations

- More training is needed to increase the speed of runway and equipment repairs.

- Smaller, more deployable Bobcats, forklifts, compactors, and concrete saws are necessary to decrease construction time.

Mine Operations

- Norwegian flail, US MCAP, and mine-sniffing dogs were all effective in detecting mines; however, US miniflail was not effective.

- Anti-mine centers must be established more rapidly.

- Battlefield debris and natural terrain severely reduced effectiveness of mine detectors.

Force Protection

- The unconventional nature of the conflict, including the divided battlefield, geographic separation, and undefined battle-zone made force protection more difficult.

- Additional equipment needed for force protection includes: wide-angle, handheld and vehicle-mounted thermal imagers; metal and explosive detectors; prisoner-of-war detainee equipment; and mirrors.

Firearms and Ammunition

- The M855, 5.56mm ammunition, which is used in the M16, M4, and M855 Squad Automatic Weapon, may, according to reports from the field in Afghanistan, be lacking in stopping power. There have reportedly been instances in which enemy soldiers have been struck by US rounds but kept proceeding. A US Army official who is a product manager for small arms has characterized most of the reports as being anecdotal and unsubstantiated, however, the Army is taking the issue seriously enough that it is doing a study to investigate the possibility of "overpenetration" by the M855 rounds.[243]

- A Central Command survey of soldiers who served in Afghanistan indicated some deficiencies in firearms performance. Dust was a particular problem. 54% of soldiers who were asked about the performance of the Squad Automatic Weapon and a similar percentage of respondents asked about the M9 handgun said that cleaning and maintenance were problems. Additionally, the M4 had a high percentage of malfunction. 20% of soldiers who were asked about the M4 experienced double feeding as a problem and 15% experienced ammunition-feeding jams.[244]

High Altitude Air Assault

- Due to high altitude, air assaults required the use of CH-47 Chinook helicopters and in-flight refueling. General John M. Keane has stated that "MH-60s could not make it all the way."[245]

Medicine

- Maj. Gen Hagenbeck has praised the basic emergency medical skills possessed by US infantry soldiers and the decision to have medics sent into battle with the soldiers.[246]

Civil Affairs

- Brig. Gen. David N. Blackledge, chief of the 352nd Civil Affairs Command, has indicated that the Army is running out of civil affairs experts. Most soldiers with civil affairs expertise are in the army reserve and are scheduled to return home after a one-year tour of duty. Civil affairs experts are vital to winning over the local community

by providing it with the basics like schools and water. Given that local intelligence, thus good relationships with local communities, is vital to rooting out the threat of the Taliban and Al Qaida, the military should provide inducements for reservists to extend their tour of duty while actively looking to increase the number of civil affairs experts.[247]

Additional Navy Lessons

There are also additional lessons that the US Navy has concluded that it learned from its involvement in Operation Enduring Freedom. These lesson include:[248]

Intelligence, Surveillance, and Reconnaissance (ISR)

- More connectivity to ISR data for personnel charged with firing weapons.
- Develop ways to transfer P-3 imagery to distant receivers.
- Acquisition and deployment of additional P-3 sensor kits.
- Acquisition and deployment of additional fleet-based tactical UAVs.

Operations

- Mainstreaming and standardization of maritime intercept operations in training and operations.
- Closer integration between Navy special operations assets and Navy conventional forces.
- Standardization of combat search-and-rescue operations.
- Standardization and improvement of close air support procedures and operations.
- Additional improvements in the areas of interoperability with other services and coalition partners.

Sustainability Needs

- Increase USCENTCOM stockpiles of munitions, especially precision-guided type.
- Decrease time needed for reloading Tomahawk cruise missile batteries on ships.
- Improved system of tracking and distributing spare parts.

VI. Drawing Lessons About Asymmetric Warfare from Ongoing Low Intensity Conflict

The US, Britain, and their allies may have expected to create a "post conflict" environment after their victories in driving the Taliban and Al Qaida from power. As has been touched upon earlier, however, they were unprepared for the realities of asymmetric warfare and for armed nation building, and they failed to set meaningful grand strategic goals for winning the peace. They failed to immediate secure the country or staff and fund the kind of economic and nation building aid that might have truly defeated the Taliban and Al Qaida, and effectively delegated what they saw as a low priority mission to their allies.

These are virtually the same critical mistakes they were to repeated in Iraq, and the result has been very similar: A continuing low-intensity conflict:

- **Mar 1** - Coalition forces from Australia, Canada, Denmark, France, Germany, and Norway joined United States troops in Operation ANACONDA, an assault on enemy forces in southeastern Afghanistan.
- **Mar 16 -** Korean military forces established a hospital at Manas, Kyrgyzstan.
- **Mar 17** - Operation ANACONDA concluded; a total of eight American servicemen had been killed and 82 wounded in action.
- **Apr 4** – Six hundred soldiers of the new Afghan National Guard (ANG) graduated after 6 weeks of training by the Coalition.
- **Apr 24** - 295 detainees were housed at Camp X-Ray, less than 24 percent of who were native Afghans.
- **May 2** - Task Force Jacana, British Royal Commandos, initiated Operation SNIPE, a sweep in the Gardez region, which ended May 17.
- **May 8** - Spain provided humanitarian assistance to Afghanistan in the form of 26 tons of pharmaceutical supplies delivered to Kabul.
- **May 15** – The 1st Battalion, Afghan National Army (ANA) commences training under the direction of U.S. Special Forces.
- **Jun 13** - The Loyal Jirga elected Hamid Karzai as the head of the Afghan transitional government.
- **Jun 20** – British Major Gen. John McColl handed over leadership of the ISAF to Turkey's Major Gen. Hilmi Akin Zorlu. Ten days later, on Jun 30, Turkey assumed full operation lead of ISAF.
- **Jul 6** - Haji Abdul Qadir, the new Afghan vice president, was assassinated his first day in office.
- **Aug 6** - The Coalition Joint Civil Military Operation Task Force completed two major road programs in the Bagram area, which enhanced humanitarian supply lines.
- **Aug 18** - Operation MOUNTAIN SWEEP, a Coalition effort to locate key personnel and weaponry in the Gardez region, commenced and lasted until Aug 25.
- **Aug 20** – The Government of Bulgaria donated a substantial amount of arms and ammunition to the Afghan government for training and equipping the Afghan National Army.

- **Sept 17** – A U.S. tactical Psyops detachment and officers of 3rd BANA distributed 750 school bags filled with supplies to the children of Paktia Kot Elementary School.

- **Sept 18** – U.S. soldiers conducted a cordon and search of several compounds. In one of the compounds they found suspected Taliban literature calling for Jihad against Coalition forces.

- **Sept 21** – Twenty-one U.S. medical personnel from Bagram Air Base flew to Kohe Sofi, where they examined and treated about 800 local villagers, of which 400 were children.

- **Oct 3** – More than 360 soldiers of the 3rd Bn. ANA graduated from the Afghan Military Academy, in Kabul.

- **2003**

- **Oct—**1,000 Afghan fighters surrendered weapons for food, money, and clothing in Kunduz.

- **Oct 26—**Afghani Interior Minister Ali Ahmad Jalali replaced several top officials during a visit to Mazar-e-Sharif. The provincial governor, the deputy governor, the major, and the police chief were all replaced following an outbreak of fighting between warlords Attah Mohammad and Abdul Dostum.

- **Nov 11—**A bomb exploded outside of the UN's Kandahar office.

- **Nov 14—**Afghani Foreign Minister, Abdullah Abdullah, criticized Pakistan for not cracking down on militant activity in its territory. Citing the UN Security Council resolution extending the role of the NATO peacekeeping force past Kabul, Abdullah encouraged the coalition to act rapidly.

- **Nov 16—**A UN refugee worker was shot and killed outside of Kabul, the first aid worker killed since the fall of the Taliban. A UN vehicle in the Paktia Province was attacked with a bomb. Afghanistan celebrated the two-year anniversary of the fall of the Taliban.

- **Nov 18—**Zalmay Khalilzad, US ambassador to Afghanistan, harshly criticized Pakistan for not doing more to stop militants from operating in its borderlands and to stop drug traffickers. The UN pulled thirty members of its refugee agency out of southern and eastern Afghanistan following three attacks on its personnel. A weeklong program to offer Afghan fighters with food, money, and clothing in exchange for weapons ended. Japan raised the $41 million for the program, which saw 595 fighters outside Gardez turn in weapons ranging from rockets to tanks.

- **Nov 23—**A bomb exploded outside the Intercontinental Hotel in Kabul that resulted in no casualties. Remnants of the Taliban claimed responsibility.

- **Dec 1—**100 out of 330 delegates arrived for the preliminary session of the *loya jirga*. Sixty US soldiers were deployed to Herat to support reconstruction and security efforts. Ismail Khan, the regional governor/warlord, welcomed their arrival. Lord Robertson, the NATO Secretary General, warned that the organization's credibility and success in Afghanistan required that member states send more troops and equipment to Afghanistan.

- **Dec 2—**Abdul Rashid Dostum and Atta Mohammed, two rival warlords who had been fighting one another outside of Mazar-e-Sharif, surrendered much of their heavy weaponry, including tanks, anti-aircraft batteries, and rocket launchers, to two battalions of the new Afghan army.

- **Dec 3—**19,000 delegates met in eight cities over a period of one week to choose the 500 members of the loya jirga. The elected members of the assembly determine the make-up of the Afghani constitution.

- **Dec 4—**Secretary of Defense, Donald Rumsfeld, met with Abdul Rashid Dostum and Ustad Atta Mohammed, two warlords, in northern Afghanistan. He encouraged them to keep disarming, especially Dostum who was reluctant to surrender heavy weaponry.

- **Dec 16—**A highway linking Kabul and Kandahar opened.

- **Dec 21—**Lt. Gen. David Barno redefined the mission of the five provincial reconstruction teams consisting of 50 to 70 soldiers. Barno announced the creation of seven additional teams and that all teams' primary focus would be to provide security in southern Afghanistan instead of humanitarian relief.

- **2004**

- **Jan 4—**The Loya Jirga approved the Afghan constitution.

- **Jan 8—**Pakistan's military moved into Waziristan region to root out Al-Qaida militants hiding in the borderland mountains.

- **Jan 11—**Gen. Mohammad Zahir Azimi stated that the Afghan National Army had suffered 3,000 desertions.

- **Jan 12**—Pakistan's Prime Minister, Zafarullah Khan Jamali, made an official visit to Afghanistan. He pledged cooperation in the fight against terrorism, on trade issues, and on transportation projects. The prime minister announced that Pakistan would donate school buses and scholarships.

- **Feb—**Central Intelligence Agency Director George Tenet met with Pakistani President Perez Musharraf and other top military figures.

- **Feb 3—**Lt. Gen. David Barno announced a new strategy for fighting the remnants of the Taliban, including a spring offensive.

- **Feb 4—**Afghan President Hamid Karzai sacked Muhammad Arif Sarwari, the head of the National Security Directorate amid charges of human rights abuses and espionage activities on Afghan citizens.

- **Feb 9—**NATO commander Gen. James L. Jones stated that the insurgency in Afghanistan is weakening and that the number of fighters may have fallen below 1,000.

- **Feb 17—**Lt. Gen. Barno announced that the US would create regional development zones, with Kandahar as the first zone. The zones are designed to coordinate the efforts of the US military, the Afghan police and military, and US AID.

- **Mar—**The commando unit that helped capture Saddam Hussein, Task Force 121, arrived in Afghanistan to search for Osama bin Laden and remnants of Al-Qaida and the Taliban.

- **Mar 5—**Afghan and foreign fighters attacked an Afghan National Army base at Sesandeh, in the Paktika Province. US and Afghan military personnel fought off the assailants who were heavily armed.

- **Mar 7—**US military, in coordination with 12,000 Pakistani soldiers, launched Operation Mountain Storm against suspected Al-Qaida hideouts on the border with Pakistan.

- **Mar 10—**Pakistan's military reached an agreement with tribesmen in the Wana region to form a 600-man force to seek out Al-Qaida members and sympathizers in the border regions between Pakistan and Afghanistan.

- **Mar 14—**US forces, engaged in Operation Mountain Storm, killed 12 Taliban fighters and captured three Taliban commanders.

- **Mar 15—**Pakistani agents diffused a bomb located in a van outside of the US Consulate in Karachi, Pakistan. The US commander in charge of forming the Afghan Army stated that they needed far more money.

- **Mar 18—**Al-Qaida guerillas fiercely fought units from the Pakistani military in Waziristan. Pakistan stated that the fighters were protecting a "high value target," possibly Ayman Al-Zawahiri.

- **Mar 21—**Pakistan's military sent a delegation of tribesmen to negotiate the surrender of the Al-Qaida fighters. An all-out offensive was promised if they did not surrender.

- **Mar 21, 22—**Fighting broke out between fighters loyal to the warlord/governor of Herat, Ismail Khan, and to militia commander Zaher Naib Zada. The conflict began after the assassination of Khan's son, Mirwais Sadiq, the Afghan aviation minister. The Afghani Defense Ministry sent troops to quell the fighting.

- **Mar 25—**The Pentagon announced the transfer of approximately 2,000 marines from the Persian Gulf to Afghanistan.

- **Mar 27—**The town of Khost suffered three separate attacks in one day. A suicide bomber blew himself up outside of an Afghan military base, injuring none. Three Afghan soldiers' homes were hit with grenades. No one was hurt. Militants attacked a restaurant with rockets, injuring six civilians. In the Uruzgan Province, fighters attacked an army post killing two soldiers and abducting ten.

- **Mar 28—**The clash between militants and Pakistani troops in South Waziristan ended after militants returned 12 paramilitary fighters and two civilian officials, prompting Pakistan's military to withdraw. President Karzai postponed the national parliamentary and presidential elections until September citing security concerns.

- **Mar 29—**Spain promised to increase its troop level in Afghanistan from 125 to 250 by summer 2004.

- **Mar 31—**A donor conference began in Berlin, Germany. The goal was to raise $9 billion for use in Afghanistan over three years.

There are only limited details available on the size and nature of the forces engaged. The Defense Department did update its manpower and aircraft numbers data in June 2002, although it provided little detail. Manpower figures in Afghanistan were updated again in April 2004. These numbers showed a total Central Command force of 67,800 men and women in the region, with 20,300 in Afghanistan, 1,000 in Pakistan, 1,000 in Kyrgyzstan, 1,700 in Uzbekistan, and 13,000 afloat. In addition, the US had 5,100 personnel in Saudi Arabia, 3,900 in Qatar, 3,500 in Oman, 4,500 in Bahrain, 850 in the United Arab Emirates (UAE), and 64 in Yemen. (The Gulf numbers had dropped since April 2002 because of movements into the theater, and because of cuts in the naval presence that dropped the personnel afloat by 9,000. These numbers were boosted drastically at the onset of the Iraq War. Yet in spring 2004, approximately 2,000 Marines were redeployed from the Gulf to Afghanistan.) The Coalition maintained 2,024 troops while the ISAF had 6,221 troops stationed in Afghanistan.[249] The US had a total of 570 aircraft for the entire CENTCOM area, including the Afghan conflict, which includes 195 fixed-wing shooters, 40 attack helicopters, 125 support helicopters, 110 fixed wing cargo aircraft, 40 ISR aircraft, 60 tankers, and 90 allied coalition aircraft.[250] However, there still are no meaningful official data on battle damage assessments or combat effectiveness, and no reliable data on the use of munitions by type or kind of target.

Ground Operations: The Lessons of Operation Anaconda

In March 2002, US and friendly Afghan forces initiated Operation Anaconda, the first large ground operation involving significant US forces, with the intention of eliminating Al Qaida forces that had been massing east of the town of Gardez in a 60-square mile portion of the Shah-I-Kot Valley near the Afghanistan-Pakistan border. The terrain, which is characterized by steep mountains, presented an ideal environment for the Al Qaida fighters to operate in, providing them with significant concealment and cover as well as numerous options for escape. It is noteworthy that this territory is the place where two major Soviet invasions had been repelled in the 1980s during the Soviet war.[251]

Military planners were careful to learn from the lessons of Tora Bora. US Special Forces trained the Afghan forces how to successfully advance and seize territory while in battle and instructed them to not advance and retreat during battle as they had done in the past. Additionally, instead of relying heavily on Afghan forces to do a majority of the fighting, as was the case at Tora Bora, the US committed a larger number of troops to the new operation. This number increased further when it became apparent that an increased number of US forces would be required to ensure success. [252] Maj. Gen. Franklin Hagenbeck has stated that the blocking actions were highly successful, only allowing relatively few enemy fighters to escape.[253] Furthermore, Maj. Gen Hagenbeck has stated that hundreds of enemy fighters were killed during the action.[254] Some Afghans doubt the validity of that estimate, however, Maj. Gen. Hagenbeck continues to affirm it.[255] Officers from units involved in the fighting have estimated the total number of enemy killed in action to be more than 700 – stating they have detailed information which corroborates that.[256]

The Battle Plan is Still the First Casualty of War

According to the battle plan, hundreds of Afghan troops, led by a group of US Special Forces, were to advance from the west across the valley, forcing the enemy fighters to abandon their positions and head for the valley's eastern ridge. 1,500 soldiers from the 101st Airborne and 10th Mountain Divisions were inserted by helicopter in blocking positions at the seven major mountain passes that could be used by Al Qaida fighters as escape routes.[257] That blocking action was intended to prevent a repeat of the outcome at Tora Bora in which US forces prevailed, but a substantial number of Al Qaida and Taliban fighters escaped.[258] This time, however, the enemy forces did not withdraw and choose instead to bolster their positions with an additional 500 fighters.[259]

In developing the battle plan for Anaconda, senior defense officials spent several weeks analyzing data gathered from ISR missions in the region. As events unfolded, however, intelligence shortcomings became apparent. The complex terrain significantly hindered intelligence gathering[260] and mission planners did not have a clear idea of how many Al Qaida and Taliban fighters were located in the valley. As the fighting progressed, initial estimates of "several hundred" fighters were later increased to roughly 1,000.[261] In addition to underestimating the size of the enemy force, mission planners were also unaware of the fighters' exact locations and unsure of whether the dispersed nature of the enemy fighters was planned.[262] Less than 50 percent of the Al Qaida positions were identified prior to the battle.[263] Specifically,

ISR data failed to reflect the presence of several well-fortified enemy fighters on the eastern ridge of the valley where US forces were to be deployed.[264] Additionally, as of February, there were an estimated 800 civilians living in the Shah-I-Kot Valley.[265] In reality, however, there were no civilians in the valley.[266] That false information was incorporated into the battle preparations and the overall battle plan.[267]

This shortcoming of US ISR capabilities contributed to an unanticipated series of events on the third day of the operation. During the early morning hours of March 4, a US MH-47 Chinook helicopter carrying Special Forces, Navy SEAL SOF, and an Air Force Special Operations combat controller touched down atop Takur Ghar Mountain. US aircraft had previously bombed the ridge, which was located at an altitude of 10,200 feet, and surveillance missions conducted after the bombing runs had failed to reveal any hidden enemy positions. However, upon preparing to disembark from the helicopter, the US SOF were met with heavy enemy fire. In the confusion that followed, the helicopter, despite its now damaged electrical and hydraulic system, began a shaky lift off which caused one of the SEALS to fall down the cargo ramp and out of the aircraft. Under continued fire, the helicopter was forced to leave the crewmember on the ground and touched down a number of miles away. [268]

In the immediate aftermath, a rescue effort to retrieve the lost crewmember was launched. During that mission, several Apache helicopters were disabled and another Chinook helicopter, carrying an Army Ranger extraction force, was brought down by enemy fire, immediately killing four persons. A second group of Army Rangers, burdened with heavy equipment, extra layers of clothing, and inappropriate footwear, was forced to ascend the mountain where it met the surviving Rangers and assaulted enemy positions while waiting several hours to be extracted with the wounded and dead. In all, seven soldiers died in the incident and roughly another eleven were wounded - the highest number of combat deaths to occur in one day since eighteen US soldiers died in operations in Somalia.[269]

These and the other events that transpired during the initial day of Operation Anaconda provide several lessons. In addition to revealing continued shortcomings in US ISR capabilities, they call into question the effectiveness of US airpower in destroying well-entrenched enemy positions. Additionally, the fighting on Takur Ghar further supports current conclusions regarding the difficulties of fighting in an unconventional environment against an opponent who is difficult to locate and target. Throughout the fighting on that day (and throughout the entire operation) US commanders were forced to alter battle plans and ground forces were forced to constantly adapt to a rapidly changing situation in which their equipment was inappropriate or an impediment to their progress.

In terms of scope, Anaconda represented the first time during the fighting in Afghanistan that significant numbers of US ground troops participated in battle. Ultimately, three battalions of US soldiers, each containing about 600 soldiers, participated in Operation Anaconda.[270] Two of those battalions were from the 101st Airborne Division and one was from the 10th Mountain Division.[271] Soldiers from the 75th Ranger Regiment, Army Special Forces, and other US special operations soldiers, including Delta Force members, also participated in the operation.[272] Additionally, 100 Australian special operations soldiers, 100 other allied soldiers, and 450 friendly Afghan soldiers participated in the battle.[273] Approximately 500 US regular troops from

mountain and airborne divisions and 450 Special Forces participated in the battle. In addition to them, about 200 specially trained troops from Australia, Canada, Denmark, France, Germany, and Norway also participated in the fighting, as did a significant contingent of Afghan troops. The total coalition force numbered approximately 2,000 personnel. The start of the operation was delayed 48 hours due to poor weather conditions in the region, which, while characteristic of the Afghan winter, were not conducive to launching a military operation in mountainous terrain. Weather remained a constraining factor throughout the operation, at points limiting the ability of the US to provide air support for ongoing ground operations. When the operation finally began, the original plans quickly fell apart.[274]

Afghan forces entering the valley and awaiting instructions from the Special Forces team accompanying them were quickly ambushed by Al Qaida and Taliban fighters, forcing them to withdraw. US commanders responded by inserting, via CH-47 and MH-47 Chinook helicopters, several hundred US Army soldiers.[275] Upon landing, however, these forces came under direct fire from fighters pre-positioned in defensive positions and equipped with small arms, RPGs, and shoulder-fired surface-to-air-missiles.[276] US commanders later admitted that the number of Al Qaida fighters entrenched in the area and the intensity with which they fought surprised them.[277]

Throughout the early stages of the operation, US planners appear to have underestimated the size and strength of the enemy force that they would be facing. This, in part, can be attributed to their reliance on a small group of local Afghan commanders and informants who may have painted an inaccurate picture of the enemy.[278] However, even the most advanced ISR technology has its limitations, which underscore the importance of developing accurate human intelligence. UAVs and other sensor platforms, while providing detailed imagery of the battlefield, cannot "see" through mountains and under heavy brush to reveal well-hidden enemy positions. By choosing the mountainous valley as the battlefield, Al Qaida was able to maximize its asymmetric advantage. If the US is to be successful against dispersed forces in future instances, it must develop means of more precisely determining their location so as to avoid accidentally sending soldiers into heavily entrenched enemy positions as was the case during the initial days of Operation Anaconda. [279]

The Post-Anaconda Transition to Low Intensity Conflict

The defeat of the Taliban and Al Qaida forces, however, proved to be a chimera. Following the cessation of major combat operations, fighters went to ground amid the general Afghan population while maintaining contact with other guerilla units. Slowly, the Afghan conflict metamorphosed into a low intensity conflict. Five unique factors emerged that complicated the Coalition's ability to confront the insurgent forces:

- Remnants of the Taliban and Al Qaida attacked US and Afghan National Army forces, then dispersed into remote towns or slipped across the border into Pakistan.

- The interplay between tribal traditions and adherence to the Islamic faith made finding and capturing insurgents in remote areas particularly difficult. Extremely conservative Muslim tribes viewed many of these fighters as guests and refused to turn against them as they were, by faith and tradition, nominally under their protection. The fear that these

"guests", fellow Muslims, would be killed (another contradiction of the faith) if turned over played a role as well.

- Isolated towns faced two implacable sides. Taliban and Al Qaida fighters threatened Afghans if they helped the US, and the US threatened them if they refused to turn in or reveal the locations of insurgent fighters. Unsure as to who would be there in the long term, rural Afghans had to "hedge their bets" and try and satisfy both the Coalition and the fighters. This engendered deep mistrust on both sides and hampered the collection of intelligence and the capture of enemy fighters.

- The remnants of the Taliban and Al Qaida rarely gathered in large groups. Typically, an ambush or raiding party consisted of three to six fighters, a number that is dangerous to US and Coalition forces yet very difficult for them to track or confront prior to an ambush. If the attackers were met with overwhelming return fire, they usually scattered, frustrating US and Coalition forces that were ready for a fight.

- Insurgents have begun to adopt a larger intimidation campaign. They have threatened and killed foreign aid workers, in part because they are usually unarmed, but also because they represent the reconstruction and unrealized potential of Afghanistan that the insurgents want to prevent. Cooperative Afghans and those who express an interest or willingness to participate in a democratic process have been targeted as have the families of the new Afghan police and military.

In early 2004, Lieutenant General David Barno, the commander of US forces in Afghanistan, announced that the tactics used to fight the remnants of the Taliban and Al Qaida would shift to counter the evolving tactics of the enemy. The Taliban and Al Qaida relied primarily on hit and run attacks up until the start of 2004, which saw the rise of suicide bombings on coalition troops. Both groups have targeted relief agencies, Afghans helping the coalition, and have threatened to kill any Afghans who vote in the presidential election.

The US military headquarters at the Bagram air base were moved to Kabul, though it remains unclear what the relocation had to do with the shift in tactics. The military reallocated some 2,000 marines from the 22nd Marine Expeditionary Unit from the Persian Gulf to Afghanistan in Spring 2004.[280] Barno and the Department of Defense announced a renewed effort to decapitate the leadership of both the Taliban and Al Qaida. This included a spring offensive against suspected hideouts on the Afghani and Pakistani border, a revitalized hunt not only for Osama bin Laden and Mullah Omar, but the warlord Gulbuddin Hekmatyar, the head of the Hezb-e-Islami militia, as well.[281]

Hunting the Taliban and Al Qaida

The fall of Kandahar, the last major Taliban stronghold, on December 7, 2001 to Coalition forces sent the Al Qaida and Taliban fighters scattering. The later US failure during Operation Anaconda to seal off escape routes allowed the fighters to disperse once more.

Following the near-rout in the Tora Bora mountains, Al Qaida and Taliban leadership seemed to realize that they could not maintain large units and hope to win a confrontation against Coalition forces. The firepower, numbers, training, and technology gave the US and its allies a considerable edge, even at high altitudes. Thus, the fighters "went to ground," or dispersed into far smaller units consisting of usually fewer than ten guerillas in order to wage a low intensity war.

The US and its Coalition allies believed that Al Qaida and Taliban leaders continued to play significant roles in maintaining lines of communication between the small units and in coordinating attacks against Afghan and Coalition targets. The allies determined that the best way to disrupt the enemy in the context of a low intensity conflict was to seek to decapitate or capture the remaining and emerging Taliban and Al Qaida leadership. Killing such figures would disrupt future attacks and capturing them would divulge valuable information about their guerilla compatriots' locations and tactics.

Both Osama Bin Laden and Mullah Mohammed Omar have eluded US forces for approximately two and a half years. The French have claimed that a joint operation between their forces and the US narrowly missed Bin Laden. Omar has had a few close calls of his own. In one instance, the Taliban leader escaped a small village via motorcycle just as US soldiers arrived in town. Reportedly, US troops actually came across the Pastun with several of his fighters in an Uruzgan mosque. Omar supposedly realized that the troops did not recognize him, urged his entourage to hide their weapons, and then led everyone in prayer. Omar has scoffed at assertions that the US has him on the run. In a Pakistani interview, he claimed, "We are giving the US and the coalition a tough time. We are hunting them down like pigs."[282] Though his claims are dubious, it is clear that he can effectively evade US forces.

One method the US employed for targeting the leadership of the Taliban and Al Qaida was the redeployment of Task Force 121 from Iraq to Afghanistan. Citing the lack of high value, leadership-type targets, the US military reassigned the unit to Afghanistan to aid in the hunt for Osama Bin Laden and top insurgent leaders.[283] This is significant since the redeployment of intelligence assets and special forces personnel to the Gulf for the Iraq War seems to have hampered operations in Afghanistan. One former Pentagon official who was in charge of special operations lauded their efforts in Iraq, but termed the war a "distraction" to the ongoing efforts in Afghanistan.[284] He stated that the Iraq War resulted in the deployment of approximately 25% of the entire special forces—some 10,000 men. During an earlier hunt for bin Laden, soldiers knowledgeable in Spanish affairs were substituted for members of the 5th Special Forces Group who had expertise in the Middle East because they were needed in Iraq.[285] Though it is by no means certain that such reassignments directly led to the failure to find him, removing such assets in mid-hunt could not help.

Task Force 121, soon to be renamed, is comprised of Navy SEALs and Army Delta Force soldiers. The unit, coupled with the 4th Infantry Division, was responsible for finding Saddam Hussein on December 13, 2003. Task Force 121's training is uniquely suited to hunting and capturing enemy leadership in hostile areas. The spokesman for the US forces in Afghanistan asserted that the intelligence community had learned substantial lessons from the conflict in Iraq

and that he was confident that both Osama Bin Laden and Taliban leader Mullah Mohammed Omar would be captured before the end of 2004.[286]

One of Task Force 121's tactics that could prove successful in Afghanistan is called "link-analysis". In Iraq, the group created a massive name web that showed every person with whom Saddam Hussein or members of his family had had substantial contact. These individuals were then located, interrogated, and the information they provided helped lead to the capture of Saddam. Such a technique could prove useful, albeit extremely complex, due to the close-knit tribal and familial connections prevalent in Afghanistan. Once again, Task Force 121 would have to be careful of potential "red-herrings," or tips that turn out to be untrue because the source had a personal vendetta against the would-be high value target.[287]

Task Force 121 has four major components. The first has been dubbed Grey Fox, a group created to spy and intercept the communications of international drug smugglers. Once under the control of the Army, the organization was shifted to the second element of Task Force 121, the Joint Special Operations Command, after the terror attacks on September 11, 2001. The JSOC houses 800 Delta Force and Navy SEALS specially trained in counterterrorism. The JSOC made up most of Task Force 11 that was the first group whose expressed purpose was to find Bin Laden and Mullah Omar. The third component of the task force is the CIA Special Activities Division, whose paramilitaries are responsible for recruiting informants and establishing the intelligence networks the operatives require. The final element of Task Force 121 is the 160th Special Operations Aviation Regiment which provides the team with transportation. Their fleet includes AH-6s, Blackhawk, and Chinook helicopters.[288]

There are concerns, however, that "hunter-killer" teams like Task Force 121 are not as effective as some in the Defense Department claim. One critic pointed out that no truly high-value targets have been caught or assassinated in Afghanistan, and that portions of the team were directly involved in the previous unsuccessful hunt. One problem may be certain restrictions that have been placed on the Special Operations teams.

The Department of Defense has authorized Delta Force and Seal Team Six but not the Green Berets for such missions. Critics, including one defense official and several retired special forces personnel, contend that the Green Berets could perform the missions and that it takes entirely too long for the Delta or Seal teams to arrive. Green Berets live and work alongside the local populace. Having earned their trust, the locals sometimes pass time-sensitive intelligence concerning the whereabouts of high-value targets. On two occasions, one near Kandahar and one near Gardez, sources insist that the Green Berets had credible information on the location of Mohammad Omar and Ayman al-Zawahiri, but that they were told to hold in favor of the other teams. In both cases, neither target was found when the Special Forces arrived. The critics assert that the counterinsurgency work of the Green Berets is more appropriate to the situation in Afghanistan than any other tactic.[289]

The DIA and CIA, having successfully utilized such a tactic in Iraq to capture Saddam Hussein, are working together to identify the families and tribes on the border region between Pakistan and Afghanistan. The goal is to determine which groups are sympathetic to Omar and Bin Laden and to narrow the manhunt to the areas where these groups operate or control.[290]

Eliminating high value targets, however, may not be as significant as it seems at first glance. One US intelligence assessment concluded that the capture of bin Laden may not prevent Al Qaida from initiating attacks. A British report was far more grim, stating, "Removing top level Al Qaida leaders will not make a difference."[291] Given the fact that the organization is a far looser network than it once was, it is probable that top leaders such as bin Laden and al-Zawahiri have far less input in planning attacks or even far les information on who is actually allied with Al Qaida. In Iraq, though Saddam Hussein has not been directly implicated in planning or ordering attacks on US troops, his capture led to a decline in the number of attacks on coalition forces. The same cannot be expected in Afghanistan—it is quite possible that the capture or killing of such prominent figures would bring about retaliatory strikes and establish bin Laden and his cohorts as martyrs.[292] No one would suggest that the coalition should not pursue these terrorists, but the benefits of their capture or deaths may be somewhat exaggerated.

Part of the spring offensive included what has been dubbed the 'hammer and anvil' or 'squeeze play' strategy. Dubbed Operation Mountain Storm and launched on March 7, 2004, US forces surrounded the Afghani side of the 1, 250 mile border with Pakistan while 5,000 Pakistani soldiers ventured into the relatively lawless border region of Waziristan. It was acknowledged as the largest sweep against terrorists by Pakistan ever.[293] A total of 70,000 Pakistani soldiers were repositioned near the area. Reports indicated that 1,600 US soldiers and special forces were stationed at the US base at Salerno and were constructing a much larger landing strip for large supply aircraft.[294] The US killed 12 members of the Taliban and captured three Taliban commanders.[295] It was believed that Osama Bin Laden was hiding there due to glimpses of the region's unique fauna seen in a videotape released to various media networks.[296] A second reason for the offensive was the fear that the militants who had gathered in the area would try to launch attacks during the national election in June. The election was subsequently pushed back to September.

The Problem of Security and the Role of PRT Teams

Security remains uncertain as the remnants of the Taliban and Al Qaida have shifted to low intensity warfare. Attacks on relief agencies, Afghans cooperating with the US, and on Coalition forces continue to occur frequently, yet on an extremely small scale. In a country that requires massive investment and reconstruction, soft, non-military targets abound and providing security for all organizations that would work in Afghanistan is a colossal task.

Insurgent attacks typically take the form of an ambush or assault by no more than eight to ten guerillas. Attacks also come in the form of car bombs. Large-scale sweeps by armored columns of Coalition troops do little to deter such attacks. Militants understand that they have little hope of inflicting damage or defeating such well-protected forces and are thus disinclined to attack them. In response, the US has altered its method of confronting the enemy.

The shift in US tactics seems to focus on the role of the provincial reconstruction teams. The seven teams are comprised of between 50 and 70 soldiers and their main purpose had been to provide relief services to the Afghani population and to try and "win hearts and minds." In the first 18 months following the collapse of the Taliban, reconstruction teams over five provinces completed projects that totaled $500,000.[297]

The Department of Defense stated that these teams will continue in that role with the added duty of providing security and training their Afghani counterparts, particularly in the east and the south of Afghanistan. Secretary of Defense Donald Rumsfeld has made no secret of his desire to separate the US soldiers from the rebuilding missions of the teams and keep them focused on providing security and hunting down guerillas.[298] Yet the team commanders indicated that they are already somewhat under strength due to a shortage of civilian staffers. Reportedly, seven additional teams have been added to the existing five.[299] It is uncertain, should casualties mount in Afghanistan, how long the operation could be maintained. The Department of Defense would like to eventually turn over the reconstruction teams to NATO forces.[300] General James Jones, NATO's chief military commander, announced that he sought the deployment of a total of 18 provincial reconstruction teams by June 2004.

Furthermore, international aid agencies remain skeptical about the effectiveness of the reconstruction teams. Some agencies worry that the added security dimension will overtake the teams' relief duty, while others are generally skeptical about the teams. One aid official pointed to the town of Gardez where a reconstruction team had been for a year and remarked that there was little visible change.[301] The international aid organizations have become targets for Al Qaida and the Taliban, prompting them to leave the southeastern part of Afghanistan or entirely. The U.N. had to suspend its operation to resettle refugee Afghans returning from Pakistan over security concerns.[302]

In November 2003, the U.N. had a worker killed in a drive-by shooting, a car bomb exploded outside of its offices in Kandahar, and one of its vehicles was attacked in the Paktia area.[303] The Kandahar reconstruction team had approximately $10 million in projects scheduled for 2004.[304] The city once was once a prime area for relief agencies; in mid-2003, 26 organizations had a presence there. In early 2004, there were only five agencies.[305] The head of the Defense Intelligence Agency, Vice Adm. Lowell Jacoby, acknowledged that the Taliban, Al Qaida, and warlord attacks on the relief and reconstruction efforts approached a level of violence unseen since the ouster of the Taliban from power. He warned that the quantity and severity of the attacks were likely to increase as Afghanistan draws closer to national elections.[306]

Qalat, the capital of the Zabol Province in southern Afghanistan, received a reconstruction team in April 2004. Zabol is a troubled area, with Taliban fighters routinely terrorizing villagers and brazenly setting up roadblocks along the route to Kabul. President Karzai installed three different governors in just fifteen months. One report estimated that up to 70% of the province is either in the hands of the Taliban or lacks an adequate security presence. Villagers indicated that the primary reasons for instability in the region were the intimidation tactics used by the Taliban and that they were able to recruit well by paying Afghanis far more than they could get anywhere else. Recruiters provide up to $200 for a successful attack and up to $900 for killing pro-government or pro-US personnel. At times, they even provide a satellite phone, an AK-47 and a motorcycle.[307]

The Paktika Province remains another area of concern. Militants with heavy weaponry attacked US and Afghan forces in March 2004. The weaponry was significant, because US forces believed that there was no way that the fighters could have transported the equipment to the base unnoticed without local help. Yet resulting searches and interrogations turned up little.

The former governor of the province, a one-time Taliban commander, was removed by President Karzai for maintaining contacts with Taliban forces and for advancing his tribe's interests with little regard to the province. Aid organizations have mostly withdrawn from the region due to the lack of security.[308]

The resources of the anticoalition fighters revealed itself in a separate incident in the village of Sesandeh, in the Paktika Province. Militants attacked a military base housing US and Afghan soldiers, only to be beaten back. Yet the firepower that they brought to bear included RPGs, mortars, and heavy machine guns. One ANA soldier commented, "We were surprised they were able to bring such heavy weapons to attack our base."[309] These incidents indicate that it is by no means certain that small unit deployment or the deployment of provincial reconstruction teams can provide the security that large units have failed to achieve.

Air Power after the Fall of the Taliban

Other lessons emerged during the first day of the battle when helicopter-based firepower was not extremely effective in hitting enemy positions. Five AH-64 Apache gunships were called in to suppress enemy gunfire, but several quickly became damaged and were forced to withdraw. While additional helicopters, including the US Marine Corps Super Cobra, were deployed to provide support and cover for the ground forces, they did not operate at optimal levels due to the extreme elevations at which the battle was occurring. Limitations on the helicopters' abilities to loiter over the combat area and the inability of the helicopters to hover in relatively stationary positions negatively affected their targeting ability, thereby decreasing the accuracy of the helicopters' fire.[310]

After eighteen hours of fighting, in which one US and three Afghan soldiers were killed and another 40 US soldiers were injured, the contingent of US forces and the remaining Afghan forces withdrew to a point near the town of Gardez.[311] Evaluating the failure of US ground forces to successfully force the Al Qaida fighters towards the ridge and, during the initial hours of battle, to successfully seal off potential escape routes, commanders reverted back to the pattern of heavy bombings used at Tora Bora. The next phase of Operation Anaconda was largely air based, with B-52 heavy bombers dropping 2,000- and 500-pound bombs on Al Qaida targets in the valley and along the mountains. Additionally, the US successfully utilized two new 2,000-pound thermobaric bombs, which, when fired into a cave, expel the oxygen and suffocate any hidden fighters. Following this stage of the battle, US ground forces were able to operate effectively, and over the next two weeks successfully located and destroyed enemy positions in the valley. [312]

Though the use of airpower during the initial days of the operation was essential, some observers argue that the need for intense air support revealed serious shortcomings in the capabilities of light ground forces. A recent report analyzing the Army's performance in Afghanistan cites a lack of artillery as a major shortcoming of the operations in Afghanistan. During Operation Anaconda, ground forces did not have the option of using artillery to target and destroy entrenched enemy positions. Army troops had to rely on their own mortars, as well as air support from AH-64 Apache helicopters and combat aircraft, to eliminate the enemy threat.

Major General Franklin "Buster" Hagenbeck has noted that planes employing precision-guided weapons were not as effective due to the effects of terrain and weather.[313] In many cases, it took a direct hit from a 2,000-pound bomb to take out an enemy position.[314] There is a notable example of a fortified Al Qaida command post that endured at least five close calls with 2000-lb bombs, yet was not neutralized until it was taken by ground forces.[315]

Aside from terrain and weather, there were other factors that limited the effectiveness of close air support involving the use of precision-guided weapons. One is the fact that the Combined Air Operations Center was given only hours of advance notice of the operation and did not have time to plan for possible missions.[316] Additionally, soon after the operation began, air controllers were flooded with requests for close air support. An article in Air Force Magazine states that "Simply put, the request system jammed" and notes that during the initial 24 hours of the operation it had to work 30 points of contact.[317] Another factor that limited the effectiveness of the use of precision-guided weapons during Anaconda was the desire of Major General Hagenbeck to preserve cave entrances so that the caves could be exploited for intelligence.[318] The rules of engagement were another constraint to the effective use of precision airpower. Pilots were free to engage some types of targets, but were required to obtain authorization for striking other types of targets, such as sport utility vehicles that were escaping.[319]

Additionally, adaptations had to be made to the Apache helicopters. Originally designed to attack Soviet armor at night, the weapons systems were modified to increase their effectiveness at hitting entrenched ground forces. The high altitude of the operation, however, forced Apache pilots to engage in maneuvers that decreased their ability to accurately target ground positions. Unlike aircraft flying at higher altitudes, the Apache's were easily targeted and hit by small arms fire and rocket propelled grenades from Al Qaida and Taliban fighters. Nevertheless, the Apache helicopters were more effective than fixed-winged aircraft at destroying enemy positions. Following Operation Anaconda, A-10 aircraft were dispatched to the region to further support Apache operations.[320]

The Artillery Versus Airpower Debate

In situations such as Operation Anaconda in which specific coordinates of enemy positions are not known, some Army observers concluded that artillery, including howitzers, would be more effective than airpower at hitting enemy positions. The use of artillery, however, is contingent on the Army's ability to maneuver its current overweight, bulky equipment to a location near the battlefield. Given the rugged terrain in and around the Shah-i-Kot Valley, it is questionable how successful the Army would have been in deploying artillery.

Then Army Chief of Staff, General Eric Shinseki, testified before the Senate Armed Services Committee that he felt artillery, such as the Crusader, would have provided ground forces with necessary "suppressive fires" in significantly less time than it took for aircraft to respond. While it took 25 minutes for aircraft to provide support, Shensiki testified that it would only take the Crusader roughly three minutes to provide support to ground forces in a similar situation. Citing the fact that 28 of 36 casualties during the operation were due to indirect mortar fire, Shensiki said that artillery would have been the most effective method of supporting ground forces.[321]

General Tommy Franks, then head of US CENTCOM, however, disagreed with Shinseki's assessment, stating that the notion of transporting and positioning a number of Crusader howitzers for use during Operation Anaconda was "mind boggling." Franks, testifying before the Senate defense appropriations subcommittee, stated that several factors, including lift-availability, the altitude at which the battle was occurring, and the munition trajectory characteristics of a weapon, must be considered when determining whether or not to deploy artillery. Based on these factors, Franks concluded that mortars were a more appropriate weapon for use during Operation Anaconda.[322]

At least one officer in the 101st Airborne Division's 3rd Brigade was ambiguous in commenting on the issue. He noted that lift and basing requirements prevented the unit from bringing its eighteen M-109 (155mm) howitzers into the theater, as well as some of its UH-60 helicopters. He also noted that light, 105mm towed howitzers weigh only 4,400 pounds and expressed his opinion that moving them to the battlefield would not have delayed or complicated operations. Additionally, he noted that artillery weapons have to be secured and require support and that 120mm mortars are more mobile. He also noted that such mortars have an effective range of 7,200 meters (or about half that of the 105mm howitzer) and must be moved, supported, and resupplied much further forward, often under much more difficult resupply and force protection conditions.[323] It is interesting to note that the 82nd Airborne Division did bring its artillery to the theater when it replaced the 101st.

The debate between Shinseki and Franks represents the larger debate over the practical uses of artillery in non-conventional settings. While having the Crusader or another howitzer present during Operation Anaconda would have been of assistance to ground forces, it is unlikely that the Army would have been able to transport it there. Even in the most ideal weather conditions – and the initial days of Operation Anaconda saw some of the worst winter weather that Afghanistan offers -- it would have taken several days to transport such heavy equipment to such a high altitude. If one of the lessons of Operation Anaconda is the need for artillery support even in rugged battle environments, then a complimentary lesson is the need for lighter, more agile equipment that makes the use of such artillery possible. Indeed, the demands placed on the Army during Operation Anaconda provide additional evidence in support of the Army transformation effort already underway.[324]

Equally important is the fact that, in the real world, hard trade-offs have to be made for resource reasons. The Crusader was designed at a time where unguided artillery rounds would dominate artillery fire. The US has at least five guided, 155mm artillery shells under development, and some, such as Excalibur and the Trajectory Correctable Munition, have a range in excess of 30 miles.[325] It is far too soon to know whether a combination of light artillery weapons, tactical ISR assets, and guided artillery rounds can provide a far more cost-effective solution than traditional upgrades to heavy artillery platforms. It also, however, seems dangerous to rush into the procurement of extremely costly and heavy legacy systems.

Lessons for Land Force Transformation: The Weightlifting Contest

Under the current Army transformation plans, some of the equipment problems that US troops encountered may be resolved as early as 2008. The Army is currently developing the

Objective Force Warrior with the goal of decreasing by half the weight of the equipment that soldiers carry. Like many elements of the Army's future Objective Force, the Objective Force Warrior is highly dependent on the development of new technologies, including a uniform equipped with a micro-climate conditioning system which will allow soldiers to operate comfortably in both hot and cold environments similar to the environmental extremes encountered by soldiers during Operation Anaconda. In addition to protecting soldiers from weather conditions, the uniform would be designed to protect troops from the effects of chemical or biological weapons.[326]

During Operation Anaconda, ground forces often became overburdened by the weight and amount of weaponry that they were carrying. Soldiers report that in order to move more quickly they were forced to discard some of their equipment. In one instance, several Special Forces troops scaling the side of a mountain were forced to discard their body armor because it significantly inhibited their ability to ascend the steep mountainside. Based on these common experiences and difficulties, it will be essential for the Army to re-examine basic equipment and weapon characteristics. Ground forces in fighting situations like Anaconda face several challenges and require an effective means of defending themselves and attacking the enemy. Their equipment should not become an impediment to their survival or achievement of the main objectives of the mission.

In spite of other problems, only 76 of the approximately 2,000 US soldiers who participated in Operation Anaconda were wounded.[327] According to the commander of the 274th Forward Surgical Team (Airborne), many of those wounds were located in soldiers' extremities and there were not as many serious wounds as he had anticipated.[328] Much credit for that is being given to the Interceptor body armor worn by US soldiers. It is an upgrade from the flak jackets previously worn by US soldiers both in terms of protective ability and weight. The Interceptor vest contains Kevlar, a lightweight fiber that is twenty times stronger than steel, and can be fitted with front and back boron carbide shields that are similar in hardness to diamonds and are capable of stopping a rifle round.[329]

Testimonials from US soldiers who have served in Afghanistan confirm that Interceptors can indeed protect their wearers from enemy bullets. An Interceptor vest equipped with supplemental front and back protective shields weighs sixteen pounds (basic vest weighs eight pounds and each of the shields weighs four pounds) - nine pounds lighter than the previously used flak jackets.[330] The equipment, however, has not been entirely above question. An Army report issued in April 2002 says that there were some problems with the Interceptor in regard to sizing and wearer comfort.[331] It also noted that one US soldier was killed when a round passed through his side between the front and rear shield areas, but did not elaborate on whether sizing was an issue in that incident.[332] Additionally, the New York City police have discovered serious deficiencies in stopping power in some of body armor it purchased from the same company that makes the Interceptor. Finally, some disgruntled employees at the company have alleged that their company has essentially defrauded some customers by changing size labels in order to fill orders and by using inferior recycled materials in the production of its products.[333] An official of the company has charged the union with trying to undermine Point Blank's reputation.[334]

As part of the development of the Objective Force Warrior, weapons made out of ultra-light materials would replace the M-16A2 rifle, M-4 carbine, and M-249 Squad Automatic Weapon. The new generation of weapons, while having similar capabilities, is being designed to weigh roughly 35% less than the current set of weapons. Also being developed as part of the Objective Force Warrior are alternative energy technologies, such as light-weight fuel cells, that will power high-tech sensors and replace heavy batteries which currently weigh down soldiers. The new sensors will monitor the battlefield environment as well as the physical health of the troops in the field, allowing medics outside of the battlefield to provide advice regarding troop readiness and injuries. A final component of the new uniform is development of a camouflage technology that can adapt to the environment in which the troops are operating so as to maximize their concealment.[335]

A major additional component of the Objective Future Warrior program is the development of a robotic ATV that will follow troops and carry roughly 500 pounds of equipment. While this may be practical in a more traditional battlefield setting, it is questionable whether such a vehicle would be of use to ground forces engaging an enemy in mountainous terrain which is difficult for humans, let alone robotic vehicles, to manage.[336]

The Unsealed(able?) Trap

Despite several initial problems, ground forces were more effective during the remainder of the operation. Relying on thermal imagers, Predator aircraft, and satellite data to locate enemy positions, troops would locate the enemy, relay targets, and call in helicopter or fixed-wing air support to strike the enemy. Afghan and American forces additionally moved to seal off possible escape routes for enemy fighters. There are questions as to how effective this effort was. Military officials report that in contrast to Tora Bora, where the enemy fled, many Al Qaida and Taliban forces remained in their positions. Officials, however, are unable to provide specific data as to how many enemy fighters were killed. Additionally, it was difficult to find evidence in support of this notion, leading some to conclude that the enemy once again eluded defeat by quietly withdrawing from the battlefield.[337]

Sealing off all possible escape routes from a mountainous environment is a near impossible task and requires a large contingent of ground forces. Additionally, it is difficult for military planners to decide where to deploy a containment force. A larger battlefield requires a large containment force, and no matter how large that force may be, it may not be able to overcome the natural advantages which mountainous terrain lends to an elusive enemy.

Maj. Gen. Hagenbeck has praised the flexibility exhibited by US forces during Operation Anaconda and stated that in particular the operation demonstrated the effectiveness of US infantry doctrine, preparation, and training.[338]

Beyond these lessons, Operation Anaconda and other more limited ground operations also have revealed a need for improvements in intra-theater airlift capabilities. Specifically, the Army needs to increase its ability to transport aviation forces, such as AH-64 Apache helicopters and UH-60 Black Hawk utility helicopters, within the region. A new transport must be able to fly at higher altitudes for longer time periods and must be able to land in makeshift

environments. Army officials support developing a tilt-rotor aircraft called the Advanced Maneuver Transport, which can carry both troops and equipment at high speeds, possibly landing them behind enemy lines. During the campaign in Afghanistan, helicopters have flown an average of 600 hours per week.[339]

Other broad lessons drawn from the Army's performance during Operation Anaconda and the rest of the war, were made by Army Secretary Thomas White. Evaluating the campaign in Afghanistan, he argued that the fighting situations encountered indicate that the service is headed in the correct direction when it comes to transformation. Specifically, White indicated that the fighting in Afghanistan has shown the versatility of the Army and the need for a balanced force structure. He also cited joint operations between the Army and other services as being a key to decisive victories. From White's perspective, the fighting in Afghanistan has proven that joint operations can be extremely successful.[340]

Communications, Bandwidth, and Satellite Capacity Lessons

While the mountainous terrain of the Shah-i-Kot region posed numerous physical challenges for US forces to overcome, the environment also revealed several problems with communications. Soldiers could not rely on line-of-sight communications equipment and had to turn to more expensive and less available military and commercial satellite communications. At the same time, this battle and other experiences in Afghanistan showed that critical aspects of the US national security communications system – such as the Defense Satellite Communications System (DSCS), Milstar, UHF follow-ons, NRO relays, and the NASA TDRSS spacecraft -- are still "stovepiped" and lack proper integration. This seems to be true of the designs for the new Advanced EHF and Wideband Gapfiller programs.[341]

This has led to a coordinated effort under the National Security Space Architecture Office by seven teams from each of the key agencies, including the NRO and NSA. Improving this aspect of force transformation has been given high priority and new programs could start being funded in 2003. The program will be evolutionary and emphasize field use and access across a wide range of channels, as well as the integration of the transmission of secure data from NASA, NRO, NSA, and the Defense Department. At present, US forces often have to use two to four different terminals to talk to two to four different satellites in a situation in which a single laptop could do the same job. Also, key new technologies like Lasercom are also just coming into service and there are no UAV links to the DSCS and Milstar systems. Milstar II is coming into service and will ease some problems, but will scarcely be a substitute for an integrated systems architecture. Current systems are also particularly weak in rapidly transmitting encrypted imagery. [342]

This situation was made worse by a much broader problem in satellite bandwidth capacity. The US military had anticipated a far faster growth in commercial satellite capacity than that which ended up taking place (some 275 satellite launches actually occurred instead of the 675 the military had planned on). As a result, the Afghan conflict became the first practical case where a lack of bandwidth began to inhibit US communications and ISR capabilities. The US military calculates a future need for a total of some sixteen gigabits per second in a major theater war by 2010 – some 208,000 simultaneous phone calls. Actual military capacity could be

little more than half that, thus resulting in much higher reliance on commercial communications satellite capacity that may not be available. [343]

Joint and Remote Command Lessons

In some instances, a complicated command structure that was dispersed over a wide area with key links back in the US added to communications problems. USCENTCOM did not decide to create a joint task force headquarters until May 2002, when one was created at Bagram.[344] In fact, a number of reports - including an analysis of the course of the war by the Marine Corps - seem to have concluded that USCENTCOM's headquarters in Tampa, Florida, some 7,000 miles away, was too far away to coordinate operations in Afghanistan.[345] (In February, the top Marine general commanding operations in Afghanistan had moved closer to the theater, from Hawaii to Bahrain.)[346]

While Operation Anaconda was a joint operation, special operations soldiers from each service were not under joint command. Information relayed from one group of forces to a commander sometimes did not get relayed back out into the field to another group of forces. Overall, however, observers believe that the type of mission conducted by forces in Operation Anaconda indicates the need for higher-bandwidth and more closely linked communication systems, which will provide ground forces with up-to-date information on enemy and friendly positions. Additionally, analysts urge the Army to upgrade its "common operational picture," which currently provides commanders UAV imagery of ongoing operations. The key to using such technology effectively does not lie simply in mainstreaming the collection process, but also in training officers to rapidly analyze it and adapt their mission plans as needed.[347]

In evaluating the intelligence operation that assisted the military in planning and executing Operation Anaconda, US military officers argued that despite some inaccuracies, human intelligence played a pivotal role in the success of the mission. Lt. Colonel Dave Gray, chief of operations for Operation Anaconda, noted the importance of combining human intelligence with other technical sources. He said that human intelligence was used to confirm observations from surveillance aircraft. Additionally, noting the surprisingly fierce resistance that US forces faced during the first days of Anaconda, Gray argued that limitations in technical intelligence gathering create a continued need for accurate human intelligence, both before and during a battle.[348]

Media Management and Coordination Issues

The initial problems encountered by US forces at the start of Operation Anaconda presented media management problems for the DoD. Information coming both from the battlefield and briefings was often sketchy, constantly changing, and, at times, inaccurate. Reporters were not permitted to move close to the fighting, creating a situation where the media became dependent on second-hand accounts of the battle as it unfolded.

Additionally, military officials and commanders did not properly explain and educate the media as to the rationale behind rotating troops in and out of combat. While many reporters interpreted troop rotations as a sign of military weakness, the rotations were in reality related to

the challenges of conducting military operations at such a high altitude. Unnamed military officers who complained of the inadequate use of airpower ignored the economical and tactical realities and capabilities of precision-guided munitions. While inaccurate and confused reports in the media did not derail the mission, they did create further problems for the DoD and military commanders at a time when they had more pressing issues to worry about. Therefore, managing a clear and accurate flow of information to the media remains an important element of any military operation.[349]

The Problem of Intelligence

There are broader lessons regarding intelligence. Afghanistan again showed the need to maintain a large cadre of language and area skills to deal with the need for area expertise, the ability to conduct coalition warfare, to support ground and air operations, and to deal with the complexities of targeting and battle damage assessment. The fact that the US was concentrated on China in the spring of 2001 and Afghanistan and some 67 other countries after September 11th, also shows that developing a suitable pool of field capabilities and analytical capabilities cannot be tied to predictions about future threats and scenarios.

Improving Intelligence Capabilities

Human intelligence (HUMINT) is one aspect of building up such capabilities, but its importance and value has often been exaggerated. It takes an average of two years to recruit, validate, and train a foreign source. The British found in dealing with Northern Ireland that it often took seven years to go further and penetrate a tightly organized network in some element of the IRA. US military officials did find human intelligence to be extremely helpful in making the decision to design and initiate the attack on Al Qaida and Taliban forces in the Shah-i-Kot Valley. But they also emphasized the importance of combining that intelligence information with information from other sources in an attempt to develop the most accurate picture of the battlefield situation.[350]

Afghanistan is yet another demonstration that most human sources are unreliable or have only limited access to the collection target. Their information has only limited value and credibility unless it can be cross-correlated by an analyst using other intelligence sources. In short, HUMINT can help in some areas, but it normally will not be a solution to any major problem in technical intelligence collection and it has little or negative value without major improvements in analysis and the ability to focus and fuse all-source intelligence collection.

Another method that the coalition has utilized in the collection of intelligence is the interrogation of Afghan and foreign nationals at both Camp X-Ray at Guantanamo Bay and prison facilities within Afghanistan. Despite the fact that some of these prisoners have been held for over two years, US officials maintain that they still are providing useful information. The elimination or capture of several top Al Qaida members and the prevention of some attacks have been attributed to the intelligence gleaned from the prisoners. The US has approximately 1,000 Afghans detained.[351] However, the indefinite detention of foreign nationals has raised international concern. The prisoners do not have access to an attorney, cannot avail themselves of the US legal system, and do not necessarily have to be released. The US has turned over three

British citizens to London who were subsequently released, but this tactic continues to draw international ire. Critics contend that the US maintains a double legal standard, one for its own citizens and one for foreigners.

A second area of concern for members of the coalition are the allegations that the US military abused detainees or used interrogation methods that can be seen as close to torture. Human Rights Watch claimed that interrogators force detainees to remain in uncomfortable positions and deprive them of sleep. A US military spokesperson admitted that some forms of duress were used during questioning at the Bagram airbase prison facility.[352]

The use of such tactics likely makes the coalition members less willing to cooperate fully with US operations in Afghanistan and, more broadly, in the War on Terror. Asking alliance members to act on intelligence derived from controversial interrogation methods likely will not be met with much enthusiasm. Such methods can hurt US credibility abroad as well as the US typically condemns regimes like North Korea who utilize such measures.[353]

The detainment of terror suspects has several potential unintended negative consequences. Secretary of Defense Donald Rumsfeld acknowledged in March 2004 that he knew of at least one detainee who had been released and had returned to his terrorist affiliations.[354] Taliban commander Mullah Shehzada managed portray himself as a simple civilian to the US authorities. Upon his release, he returned to Afghanistan and the Taliban. Given the large number of prisoners, if they are not charged, do not face military tribunals, and are released, it is possible that some of them could return to their respective terrorist organizations. These "detainment veterans" could in turn provide their terrorist allies with intelligence on US interrogation techniques and possibly on what information was passed on to US authorities. Clearly not all of the detainees are hardened terrorists, but confinement and harsh treatment could encourage many of them to seek closer ties or an active role in a terrorist group.

"Data mining" can automate some aspects of intelligence collection and can enable the intelligence community to make far better use of unclassified media and other sources. It can also help recognize patterns in terms of indications and warning. Data mining, however, is not a substitute for analysis and for large analytic staffs. At present, data mining also does a far better job of impressing the contractors and data systems experts that promote it, than the intelligence analysts and military personnel who use it. Data mining must be highly adaptable, easy to use, and constantly tailored to specific needs by experienced analysts to be of real help and not simply automate the problem of translating collection into analysis.

There is also a major difference between operations and both collection and analysis. Afghanistan again shows that virtually all low intensity and asymmetric wars require both intelligence and military personnel on the ground to support coalition operations, directly support targeting, and gain information in real time that can support operations. The US was fortunate that it had some recent regional Special Forces experience in Afghanistan, but it had only a very limited pool of military and CIA operations personnel and almost certainly would have done better with more.

The lack of CIA operatives with the appropriate language and area skills has led the agency to hire, under contract, former members of the CIA who had retired. Other reports indicate that the clandestine service was hit hard by both budget cuts and allegations of abuse that surfaced at the end of the Cold War. As a result of these problems, the recruiting and retention of experienced personnel were hurt in the mid-1990's.[355]

Other former officials suggest that the culture of the CIA has been under assault. Long missions in dangerous locales have typified the agency in the past, but some have asserted that the CIA has begun to exhibit a corporate air. Employees assigned abroad, especially in places like Afghanistan, frequently ask to be on a 30 to 90 day rotation or decline such assignments citing familial concerns.[356] Critics contend that the organization has become too much like a business at the expense of quality intelligence.

These officials contend that the CIA may be overstretched as well. Since its inception, though it kept tabs on many countries, its main focus was the Soviet Union and the Cold War battlegrounds. Today, the CIA plays a major role in US operations in Iraq, Afghanistan, and, more broadly, the War on Terror. It has been suggested that the agency is overly taxed by its central role in the three ongoing conflicts.[357]

The fact that the Pentagon has added espionage to the duties performed by the Army's Green Berets may give credence to such claims. The Department of Defense believes that Green Berets are more suited to preparing an area for the arrival of Green Beret "A-Teams." Such teams would assume the roles the CIA has traditionally filled, including the recruitment of local assets. Major General Geoffrey Lambert credits the successful organization of groups of anti-Taliban fighters in Afghanistan to Green Beret units specially trained in intelligence work. A second intelligence training facility opened at Fort Lewis in Washington.[358]

Beyond the Green Berets, the Pentagon is trying to reorient the Defense Intelligence Agency more towards non-state actors and terrorists than its traditional role of gathering information on states' military capabilities. Ironically, this may transform the DIA into something that looks very similar to the CIA.[359] The Department of Defense is concerned that information does not flow fast enough from sources, through analysts, and to the appropriate soldiers in time to take action. In one instance, a tip concerning the whereabouts of a militia leader was relayed but took several days to vet. Though 12 2,000-pound bombs were dropped on his alleged location, he either escaped or had left prior to the strike. A Defense Department report indicated that although advances have been made in the sharing of intelligence between agencies, it is still far too complex and lengthy a process.

Since Operation Anaconda, intelligence operatives from the FBI have been working closely with American military personnel hunting for Al Qaida fighters in Pakistan. This new relationship is said to be closer than the previous relationships between military and intelligence services. FBI agents stationed in cities across Pakistan work to gather information on the whereabouts of suspected Al Qaida and Taliban fighters and then relay that information to US Special Forces and Pakistani security forces who then decide whether or not to pursue the leads. Aware of local sensitivities, FBI agents have been careful to keep their presence muted, and rarely, if ever, accompany their Pakistani counterparts on a raid.[360]

US officials credit the new level of communications between the military and intelligence community as being responsible for the raid that led to the capture of Abu Zubaydah, believed to be Al Qaida's field commander. Additionally, the FBI has assisted Pakistani security agents in successfully apprehending more than 70 suspected Islamic militants residing in major Pakistani cities. However, following a failed raid at a madrasa, residents in the city of Miran Shah staged a protest against the FBI's presence and involvement in such raids. The key to continued success, therefore, will be the FBI's ability to maintain a low profile while still assisting in efforts to capture militants. [361]

In short, improved intelligence and operations require improvements in all five areas: technical collection, processing and fusion, human intelligence (HUMINT), signals intelligence (SIGINT), and operations. Improving any given area, and particularly ignoring analysis, is not a lesson of the war and is an almost certain recipe for failure.

Indications and Warning

Finally, it seems highly doubtful that improvements in intelligence will succeed in doing a much better job of guaranteeing indications and warning than the US had before September 11th. It is important to note that the US had long seen Al Qaida as an enemy and had prevented several previous attacks. September 11th came because Al Qaida changed its methods, had an unusually expert group of attackers, and was lucky. As has been noted previously, it seems likely that future attackers will also be innovative, and some will be highly professional and/or lucky.

Ever since the beginning of the Cold War, the US has conducted various post-crisis studies of pre-crisis indicators and warnings. Some have produced scapegoats, but some have made significant improvements in predictive and warning capabilities. In general, however, indications and warning analysis has simply kept pace with the evolution of threat techniques. The chances that any post Afghanistan improvements in indications and warning will be enough to prevent future attacks from succeeding are probably close to zero.

VII. Drawing Lessons About Counterterrorism from Ongoing Low Intensity Conflict

Given this background, it should be clear just how speculative any attempt to draw detailed lessons from the asymmetric fighting that has followed must be, and why such lessons must be subject to constant revision. Nevertheless, there do seem to be some lessons that can be drawn from the history of the fighting after the fall of Kabul.

The Problem of Distributed Warfare: How Al Qaida Re-emerged and What Does the Enemy Learn from Partial Defeat?

It has been clear ever since the battle of Tora Bora in December 2001 that major military successes in Afghanistan may not bring victory in any strategic sense of the term, and that complete victory may be impossible at the tactical level unless the US and its allies can succeed in nation building at the broadest level. These lessons have been sharply reinforced by the lessons of Operation Anaconda and Operation Mountain Storm, which are discussed later in depth.

It can be argued that Tora Bora was more a warning about relying largely on uncertain allies to carry out a ground campaign than it was a general lesson about the strengths and limitations of the US approach to war. Nevertheless, Tora Bora was the first major demonstration after the fall of Kabul that the enemy could disperse in ways that US intelligence and ISR systems cannot detect, characterize, and target.[362] The US and its allies won the battle in spite of the problems of fighting against forces in nearly 200 well-positioned caves and fire points in the mountains. They also seem to have inflicted at least several hundred casualties. Nevertheless, the Al Qaida forces largely escaped -- often because Afghan troops were bribed, simply chose not to fight, or let factional rivalries paralyze effective coordination and action.[363]

Nothing that US and allied forces did in Operation Anaconda, or in the independent search and destroy missions that have followed has shown that the US and its Western allies have a solution to the problems associated with combating an enemy whose forces are dispersed, fluid, and not seeking a conventional fight. Al Qaida has shown that in spite of the best efforts of US, British, and Australian special operations forces, it can disperse seemingly without a trace, utilize caves and other hiding places to keep arms and ammunition hidden in spite of massive search efforts, move into neighboring countries, and disperse into countries outside the immediate area of combat operations.[364]

The bulk of Taliban forces have dispersed into the Afghan population and many ordinary Al Qaida fighters have escaped. It is clear that substantial numbers of Taliban and Al Qaida forces have found sanctuary across the border in Pakistan. Lt. General Dan K. McNeil, the commander of US forces in Afghanistan, estimated that as of the middle of June 2002 roughly 1,000 Al Qaida fighters continued to conduct operations in the border area.[365] Enemy fighters have been conducting cross-border guerilla warfare from tribal areas of Pakistan that are near the Afghan border and over which the Pakistani national government is able to exert only limited

control. Due to political sensitivities, US forces have not been permitted to hunt for those guerilla fighters inside of Pakistan. The US does, however, reserve the right to pursue enemy forces across the border while in "hot pursuit" of enemy fighters.[366]

Modest Successes

The US and its allies have had some success in killing or capturing the top leadership of Al Qaida and the Taliban and they have made it very difficult for those individuals to exercise leadership of their respective groups. One major success was the capture of Khalid Sheik Mohammed in Rawalpindi, Pakistan, in March 2003.[367] He has been described as the operations chief of Al Qaida and has identified himself as being the mastermind of the September 11 terrorist attacks.[368] Also captured in the raid was Mustafa Ahmed Hawsawi, who facilitated the financing of the September 11 attacks.[369]

In Afghanistan, Al Qaida senior military leader, Muhammed Atef was killed. In Pakistan, Abu Zubaydah, who may be Al Qaida's third-highest ranking member,[370] and Ramzi Binalshibh, who allegedly assisted in the September 11 attacks and may have been intended to be the twentieth hijacker, has been apprehended. In Pakistan, FBI and Pakistani government agents have apprehended over 422 Taliban and Al Qaida suspects.[371] There is question, however, over whether the US has been too risk-averse and not aggressive enough in its pursuit of enemy forces, and enemy leadership in particular, within Afghanistan. Some special operations soldiers have voiced distress over the fact that Task Force 180 commanders have rejected a high number of direct action mission Concept of Operations (CONOPS) proposals that had been submitted.[372]

In Yemen, Abd al-Rahim al-Nashiri, an explosives expert and Al Qaida's senior operations planner for the Persian Gulf region, was apprehended. Also in Yemen, a CIA-operated Predator UAV attacked a carload of Al Qaida members that resulted in the death of Qaed Senyan al-Harthi, who is reported as being Al Qaida's top lieutenant in that country.[373]

Other victories have occurred outside the region. The top Al Qaida operative in Southeast Asia, Hambali or Nurjaman Riduan Isamuddin, was captured by Thai authorities in the Thai city of Ayutthaya and flown to the US. Hambali is believed to be the mastermind behind the bombing attacks on the Indonesian island of Bali in 2002. The CIA led the hunt, tracing his phone calls and receiving tips from Muslim Thais who grew suspicious of the foreigner's activities in their community. He had moved frequently, traveling between Malaysia, Cambodia, Burma, while crossing into Thailand several times. On a few occasions, he had narrowly escaped the authorities. The operation culminated in his capture on August 12, 2003, after the CIA informed Thai officials of his location. The CIA had kept the Thais out of the loop until the very end, fearful of information leaks that might spook the terrorist leader.[374]

US intelligence experts are the first to admit, however, that new leaders and insurgents may be emerging as quickly as the old ones are killed and defeated.

There is no way to predict when the fighting in Afghanistan will end, or even that it will end in the sense all of the country will be secure from violent Islamic extremists. Senior US military planners estimated in June 2002 that the fighting in Afghanistan would have to last, at a

minimum, well into 2003. Months earlier, after the collapse of the Taliban, Secretary of Defense Donald Rumsfeld approved planning guidance that warned that the global battle against Al Qaida and other major terrorist groups could easily extend to 2008 and beyond.[375]

Even the full defeat of the Taliban and Al Qaida will not provide a firm guarantee that Afghanistan will not be a sanctuary for terrorists in the future. Mid- and long-term success in stable nation building in Afghanistan is as uncertain as it is in the Balkans and all of the other countries where it has been attempted. Additionally, the Taliban may rise up again in some form or other warlords may offer sanctuary to terrorists. In fact, it is unclear that even a broad "68-country" defeat of Al Qaida would bring lasting victory.

The global counterterrorist effort has yielded positive results: FBI Director, Robert Muller, has been quoted as saying that in the fifteen months proceeding the September 11 attacks, approximately 100 terrorist attacks have been thwarted worldwide.[376] However, the Department of Defense has stated from the outset that Al Qaida is based in more than 60 countries. Senior US and allied officials have repeatedly warned that Al Qaida is capable of terrorist actions in the US and other countries.[377]

Mutating and Evolving Terrorist Threats

US military planners and counterterrorism experts have already been proven all too correct in warning from the start of the conflict that the struggle in Afghanistan is providing lessons to enemies as well as to US, British, and other friendly forces. They speculate that one key lesson for future terrorist and asymmetric opponents will be to create far looser and more broadly distributed networks and groups of cells that have a high degree of individual independence and survivability, and which do not have a rigid hierarchy, and headquarters and physical facilities that can be located and attacked. The director of the CIA, George Tenet, as well as several terrorism experts, believe that Al Qaida is in a transition phase from a more centralized organization to a loose collaboration of like-minded groups who rely heavily on amateurs and "walk-in" recruits.[378] It is likely that Al Qaida will adapt to US intelligence gathering methods by constructing smaller, more concealed terrorist training camps, which are not easily located by US intelligence satellites.[379]

US military planners also argue that some key lessons from the conflict in Afghanistan for such enemies will be the realization that they need more anonymity, more emphasis on establishing cover organizations and proxies, and to create a campaign plan of sequential or multiple attacks from isolated cells and elements so that no US victory in any one area can halt the overall campaign. The classic case of Lenin's brother is a warning of what may come. The Czarist secret police found and killed Lenin's brother and destroyed the organization of which he was a part. In practice, however, they may have done a great deal in the process to shape Lenin's attitudes and behavior, causing him to become a far more serious threat.[380]

In fact, the Taliban and Al Qaida fighters remaining in Afghanistan clearly learned how to adapt their tactics in the months following the fall of Kabul and Khandahar, and how to disperse their forces in ways that make them very hard to attack. A US Army War College report says that, in particular, Al Qaida forces adapted by utilizing more secure communications,

camouflage, and diversions.[381] In spite of a major increase in the deployment of US and British ground troops since the fall of Kabul, most US and British land operations have not been particularly successful in finding the Al Qaida and Taliban fighters remaining in Afghanistan. While special operations forces can, in some instances, conduct operations in search of Al Qaida fighters who escaped to or are operating in other nations in the region, senior military officials are increasingly depending on domestic intelligence and law enforcement agencies across the globe to assist in the search for and capture of Al Qaida members who have fled from Afghanistan.[382]

This kind of loose, low-technology "distributed network" of fighters and terrorists may be able to present more serious dangers in the future – particularly in future wars where the opponent will be able to foresee the US use of similar tactics and take suitable action before the fighting begins or before the point at which such US tactics have a major impact.

It is at least possible that such forces can be organized to create a series of asymmetric attacks, phased over time, that would not depend on the existence or survival of some central or easily locatable command structure. Smaller, more conventional terrorist attacks, such as the car bombing of the US consulate in Karachi, Pakistan, which killed twelve people, have been at least financially linked to small cells of Al Qaida and indicate that despite its fragmented command structure the organization remains capable of initiating future attacks.[383]

Based on the interrogation of several Islamic militants detained along the Afghan-Pakistan border, intelligence officials now believe that Al Qaida may be "subcontracting" smaller operations to local terrorist groups, providing them the financial means and expertise to successfully carry out the planed attack.[384] In the future, such a force can be organized to focus on the most lethal, costly, or disruptive means of attack, and to avoid repeating past forms of attack. As will be discussed in more depth shortly, the lessons of Afghanistan and foreign warfighting cannot be decoupled from the lessons of the anthrax attacks on the US, where it is possible that a very small cell or private individual directly attacked the US homeland. The literature captured from Al Qaida in Afghanistan shows that it was both aware of a wide range of vulnerabilities in the US homeland (such as utility centers and the US national political structure) and had identified a wide range of methods of attack, many of which did not require large numbers of personnel.

Iraq and Serbia have already had considerable practical success in limiting the effectiveness of US air power by making use of extensive force dispersion, underground facilities, decoys, concealed supply depots, locating forces and facilities in civilian areas, using civilians as human shields, and using surface-to-air missile ambush techniques.[385]

It is also worth noting in this regard that a sophisticated military power like China fully recognizes the advantages of many aspects of the US approach to warfare, and is aggressively modernizing many aspects of its forces. At the same time, China has developed plans and doctrine to counter US technological advantages and the "revolution in military affairs." China has paid close attention to Serbian tactics, as well as those of Iraq in dealing with US air and cruise missile strikes since the Gulf War. It feels that high technology sensors, weapons, and nets can be countered through counter-reconnaissance measures such as camouflage and

concealment, decoy, dispersion, and frequent force movements. It too has emphasized the use of underground facilities, landline communications, and concealed supply depots. It has developed an air defense training team called "Three Attacks, Three Defenses," that concentrates on attacking stealth aircraft, cruise missiles, and helicopters while defending against precision strike, electronic warfare, and enemy reconnaissance. It also emphasizes speed, asymmetric methods, and preemption or surprise attack as ways of trying to bypass superior conventional forces. [386]

Ultimately, the Afghan war may give rise to a new cliché about asymmetric warfare: Short of a political and grand strategic end to a conflict, any given defeat of a terrorist or asymmetric opponent simply forces the opponent to adapt.

The Problem of States, Proxies, Black Flag, and Trojan Horse Attacks

There are other aspects of partial victory that need to be kept in mind in interpreting the lessons of the Afghan War. One lesson is that it remains impossible to prove a negative. If it is impossible to prove a nation like Iraq had some involvement in the acts of terrorism that triggered the conflict, it also remains impossible to prove that it did not. The same kind of uncertainties arose over Syria's role in the Marine Corps barracks bombing in Beirut, previous Libyan terrorist actions, and Iran's role in the bombings in Al Khobar, Saudi Arabia. Nothing about Afghanistan indicates that the US has found a solution to the state use of terrorists as proxies in asymmetric warfare.

This, in turn, raises the possibility that terrorist movements may deliberately attempt to falsely implicate states in their attacks and drag them into the conflict as allies, or make them false targets. The same may be true of states doing the same with other states. One has only to consider what would have happened if Al Qaida had deliberately tried to implicate Iraq in the September 11 attacks, or if Iran had done the same thing. False proxies, black flags, and Trojan horses may be just as much a part of future asymmetric and terrorist conflicts as real ones.

Using Nations as Venues to Expand Conflicts: "Low-hanging Fruit" and the Globalization of the Conflict

It is uncertain that the US and British experience in Afghanistan provides lessons that can easily be applied to other states, particularly to Yemen, Somalia, and the Sudan. If the fighting in Afghanistan teaches terrorist movements to use distributed warfare, then they will steadily improve their ability to disperse and hide in unstable states. If they learn to use states as involuntary proxies, they will conduct operations in those states that attempt to make them targets, attempt to gain popular sympathy, and drag them into war.

Recent incidents across the Afghan border in Pakistan's southern provinces indicate that Al Qaida and other extremist groups may be following this tactic. In late June, ten Pakistani soldiers were killed while searching for Al Qaida fighters in the village of Wana, roughly 120 miles southwest of the Pakistani town of Kohat that is reported to be home to several groups of Al Qaida fighters. In early July, a shootout erupted between Pakistani security forces and a group of heavily armed Al Qaida fighters at a security checkpoint. When the fighting subsided, four

members of Al Qaida were dead, along with three Pakistanis. Both of these incidents have occurred in a region where the Pakistani government has historically held little power.[387]

FBI intelligence has confirmed in recent months that several Al Qaida and Taliban fighters who fled from Afghanistan during the first half of the military campaign have taken up residence in several major Pakistani cities. These fighters have attempted to make contacts with other militants who were previously trained in Osama bin Laden's terrorist training camps and may be developing plans to strike at US and coalition forces in the region.[388]

Reports in the Pakistani media indicate that the central government has deployed up to 70,000 security forces, including 8,000 to 10,000 army troops, along the Afghan border in an attempt to locate and capture Al Qaida and Taliban insurgents who entered Pakistan following major coalition offensives in Afghanistan. An estimated seventeen US "operatives" who are trained in the local languages and provide intelligence information as to the whereabouts of Al Qaida and Taliban fighters reportedly support these Pakistani forces. Additionally, the US recently allocated five UH-1 Huey helicopters to Pakistan for use in raids against suspected Al Qaida positions. The concern among both Pakistani and US government officials is that Al Qaida may now be working with Islamic extremists in Pakistan to coordinate future terrorist attacks against US and coalition forces in the region. US officials are privately concerned that Pakistan has not fully realized the strength or potential danger to regional stability that the remaining Al Qaida forces may pose. Eliminating the Al Qaida and extremist threat along this border region will be an important element of any long-term nation building effort in Afghanistan, and will be crucial to ensuring continued stability within Pakistan.[389]

Various other factions in both Afghanistan and Somalia have already attempted to label their opposition as terrorists or supporters of Al Qaida and have attempted to use US and British forces as their proxies to attack their opponents. Indeed, Ethiopia has done the same thing at a national level in an effort to weaken Somali separatists.

Several incidents in Afghanistan involving the possible US targeting of innocent civilians may have been triggered by rivalries between Afghan factions supposedly supporting the US-British coalition. These include the US attacks on two compounds in Hazar Qadam (in Oruzgan Province north of Khandahar) on January 24, 2002.[390] Similar uncertainties arose regarding a US air attack on a convoy in the area outside Khost on December 20, 2001 that the US felt was hostile but which Afghans claim consisted of tribal elders.[391] Following an air attack in and around the area of the village of Kakarak, Afghan President Hamid Karzai publicly asked that the US not launch military operations based solely on the intelligence of local informants.[392]

Since that time, the US and Britain have faced several situations in which it proved impossible to firmly identify a suspected Taliban or Al Qaida target in time to strike a small, dispersed group of forces, and in which military action had to take place immediately, due to the risk of losing the target entirely. This has led to a number of suspected and confirmed strikes on civilians and friendly forces and the loss of substantial numbers of "windows of opportunity." For all of the advances in sensors and situational awareness, even close monitoring with UAVs does not yet provide a basis for accurately characterizing small human and vehicle movements, particularly in nations that have heavily armed civilian populations and in which males often

move in groups isolated from women and children. Other sensor platforms designed to cover and target conventional forces – such as JSTARS and various electronic intelligence (ELINT) aircraft – have virtually no value in such cases.

Repeating the initial British and US victory in Afghanistan is one thing, repeating the hunt for Aideed in Somalia is quite another. What some analysts call "low-hanging fruit" may simply be traps where US forces would have to wander off endlessly in search of enemies, alienating the local populace in the process.

Such risks will scarcely paralyze action against significant concentrations of real enemies, particularly when good targeting intelligence is available. Nevertheless, Afghanistan is scarcely a universal paradigm as to the ease with which such operations can be conducted, as US ability to distinguish clearly between friend and foe proved to be limited.

The Expanding Theater

The period between 2002 and 2004 saw the disbursal and "franchisement" of Al Qaida across the globe. This is being facilitated by the fact that as many as 20,000 people from 47 countries attended Al Qaida terrorist training camps prior to the overthrow of the Taliban.[393] While Al Qaida certainly had allies and assets in many countries prior to this time, the "franchisement" of the movement is largely new. Those most commonly associated with Al Qaida, Bin Laden, Ayman al-Zawahiri, etc., continue to try and direct attacks against the US and its allies. However, there has been a rise in attacks from groups, some well organized, others more amateur in nature, that claim sympathy or identify with Al Qaida but cannot be considered directly under its control. As one US official commented, Al Qaida has spawned or invigorated groups that are "growing up and moving out into the world, loyal to their parents [Al Qaida] but no longer reliant on them."[394]

The end result is that the significance of a claim to belong to Al Qaida may mean far less. One terrorism analyst observed, "Al Qaida is as much an ideology as a structure."[395] A clear, hierarchical structure within the terrorist group no longer exists. It is possible that some of these groups receive minimal direction and some funding from mainstream Al Qaida. Another expert asserted, "[Al Qaida becomes] an idea, a banner, and that is very dangerous."[396] Yet capturing members of these franchised groups is unlikely to bring about a windfall in intelligence information with regard to any figures outside of the immediate organization or cell. Because these groups are so disbursed and relatively independent, eliminating one of them is unlikely to damage the capabilities or will of another group. Al Qaida is unlikely to maintain vulnerable connections with groups whose loyalty is uncertain and who are not directly under its control. It has seen the successes of the Coalition and will do its best to minimize its exposure. The benefit to Al Qaida when these groups claim Al Qaida membership is that the organization can appear far larger, far more organized, and far more popular than it is in reality. Multiple attacks on global targets by Al Qaida affiliates achieve the goal of spreading fear and arousing public opinion. The US and its allies should continue to try and disrupt these groups, but everyone involved, as well as the public, should be cognizant of the fact that complete victory in the 'War on Terror' remains an impossible task.

In tandem with this franchisement is the tendency for these groups to strike Western targets and their allies wherever they present themselves. These groups have exhibited the willingness to strike domestically in such countries and to attack their citizens abroad.

The first major example of such an attack occurred on the Indonesian island of Bali on October 12, 2002 in the Kuta district. An attack on the French supertanker "Limburg" took place six days prior, spilling 50,000 gallons of crude oil into the ocean off the coast of Yemen, but fortunately the blast did not claim lives. A small boat filled with explosives rammed the tanker while it was loading the oil. Bali was not as lucky. At 11:08 p.m., two bombs exploded at two separate nightspots that were known to be frequented by Western tourists, particularly Australians, key allies in the war on terror. The blasts killed 202 people, including several Americans and 88 Australians.[397] In all, 22 different countries lost nationals in the attack. The attack has been attributed to Jemaah Islamiyah, a radical Islamist group with ties to Al Qaida. The coordinated timing of the bombings mirrored past tactics of the terror group. Al Qaida's website claimed responsibility for the attack, though the group has been known to make some disputable claims.

Turkey, a long-time ally of the US despite its reservations over the war in Iraq, was targeted on November 15, 2003. Two trucks filled with explosives detonated outside of the Beit Israel and Gokhan Elaltuntas synagogues, killing six Jews, 19 Muslims, and injuring 303. Two Turkish men, also killed in the blast, who had unclear connections to Al Qaida, set off the bombs. Israeli investigators indicated that they believed that the group was behind the attack while Secretary of State Colin Powell stated that the bombings had Al Qaida "fingerprints."[398] The group claimed that the synagogues were hit because the terrorists believed agents of Israel's Mossad, the Israeli intelligence service, were present. The Abu-Hafs al-Masri Brigades claimed responsibility for the attack. Turkish authorities believed that the terrorists were sympathetic to Al Qaida and shared their goals but they could not find any direct links between the group and the two men. The bombings did have several Al Qaida hallmarks: suicide bombers, twin attacks, and Jewish targets. This was likely one of the first true franchise attacks.

The most deadly and well known of the franchise attacks hit Spain on March 11, 2004. Just prior to the Spanish rush hour, ten bombs exploded on four commuter trains at approximately the same time. 190 people were killed and hundreds were injured. The attack is credited with sweeping the then prime minister, Jose Maria Aznar, from government.

The elected prime minister, Jose Luis Rodriguez Zapatero, immediately promised to uphold his campaign pledge of pulling all Spanish troops out of Iraq. Many observers saw this as a form of appeasement, as a concession to terrorists, not only because it affected Spain's politics, but also because Zapatero affirmed the decision to leave Iraq. Al Qaida and Islamist terrorists have denounced the US-led invasion of Iraq and have promised to strike US and Coalition targets both in Iraq and elsewhere. To some, this appears to legitimize the use of violence and terrorism to achieve policy change, the exact contradiction of the efforts to eliminate terror.

Initially, the Abu Hafs al-Masri Brigade claimed responsibility for the bombings. This claim has been largely discredited as the group had also claimed credit for the power blackouts in

the northeastern part of the US in the summer of 2003.[399] The blackouts resulted from technical problems and no attack on any power grid ever occurred.

Soon thereafter, Spain focused on two groups, both of whom are Moroccan in origin and shared a similar ideology with Al Qaida. Salafiya Jihadiya and the Moroccan Islamist Combat Group or GICM are believed to be at the center of the Spanish investigation. On April 3, Spanish authorities attempted to detain five bombing suspects in Leganes, a Madrid suburb. Around 9 p.m., rather than face capture, the suspects chanted in Arabic and blew themselves up, killing a police officer in the process. The group used Goma 2 Eco mining explosives, the same that were used in the rail bombings. Two suspects apparently survived the blast that blew a large hole in the second story of the apartment building and evaded Spanish security forces.

Among the dead was the Tunisian, Sarhane Ben Abdelmajid Fakhet, who is believed to be the mastermind behind the train bombings. Spanish sources indicate that Fakhet may have planned the attack with a Said Berraj, a figure they associate with Al Qaida.[400] While the GICM has been relatively quite, it is not inconceivable that elements of the group have been revitalized by Al Qaida's efforts and possibly by Al Qaida money or technical support. The simultaneous explosions on the trains are characteristic of the group.

Yet European and Australian governments and citizens are not the only targets. Muslim allies have been targeted as well. In the first week of April 2004, the Jordanian security service apprehended a convoy of three trucks traveling from the northern border with Syria towards Amman. The three trucks were completely filled with explosives. The U.S. Embassy in Jordan confirmed that Jordanian forces had prevented an attack against the embassy. The Jordanian security service indicated that, along with the U.S. Embassy, Jordanian hotels and government buildings were to be targeted with the explosives.[401]

The identity of the responsible group and the affiliation of the men involved remain unclear. Jordan stated that religious fundamentalists were to blame but did not elaborate any further.

Jordan was again targeted weeks later. Jordanian agents broke up a ring on April 20 that was plotting to detonate several massive bombs in Amman. Again, the US Embassy was an intended target along with the Jordanian Intelligence Department and the office of Jordan's prime minister. Jordan security forces killed four and captured three terrorists in the raid. In follow up operations, they seized explosives, 20 tons of chemicals, including sulfuric acid, and trucks that were reinforced to be able to penetrate barricades. According to Jordanian authorities, 71 toxic chemicals were to be mixed together in an explosion specifically designed to create a giant lethal cloud, combining nerve, blister, and choking agents in an untreatable form.[402]

US officials, however, were unsure as to the aim of the terrorists. The chemicals could also been used to significantly amplify the force of a conventional detonation. In any case, the attack would have caused a tremendous loss of life.

According to the Jordanians who interrogated the men held in connection with the plot, the suspects were given $170,000 by Abu Musab al-Zarqawi, a terrorist who is believed to be

behind many of the attacks against Coalition forces in Iraq and whom the Jordanians are seeking for his role in a plot to blow up a Jordanian hotel.[403] The suspects used the money to procure the industrial chemicals needed and to purchase the trucks to deliver the bomb or bombs. Zarqawi is a known Al Qaida operative and the organization has long sought to employ chemical, biological, and nuclear attacks.

Saudi Arabia is another Arab ally that has been targeted by Al Qaida and its franchised cells. Though elements within the US have often questioned the House of Saud's resolve to track down terrorists (many point to the fact that a number of the September 11 hijackers were of Saudi descent), it is indisputable that terrorists view the regime as a mortal enemy. For some, the Saudis' first major grievance was to allow the US to attack Iraqi forces from its soil during the first Gulf War. This was followed by the stationing of thousands of US troops in the kingdom to enforce the no fly zones that were erected at the end of the conflict. Islamists viewed the presence of these troops as a sacrilegious violation of religious law. The Koran states that no infidel invaders should be permitted on holy ground, and the US troops represented a flagrant contradiction of this edict.

The US, acknowledging that its troop presence in the kingdom was a major security concern and source of anger for many Muslims, withdrew most of its military forces by April 29, 2003. But this did not prevent Islamic extremists from attacking the US or Saudi Arabia.

The first major strike by Al Qaida against Saudi Arabia took place on May 12, 2003 when suicide bombers killed 34 people in three different bombings in Riyadh. The Cordoba, Jedawal, and al Hamra compounds, all housing British, American, and other foreign nationals involved in contract work, were assaulted by terrorists who shot their way into the compounds and then utilized a large car bomb to induce most of the damage. The Jedawal compound housed employees of an American/Saudi contractor that had helped to train the Saudi National Guard since the 1970's. The Saudis could not definitively identify the association of the attackers but strongly believed that Al Qaida was responsible. Both King Fahd and Crown Prince Abdullah named the organization as the primary suspect.[404]

The second terrorist attack targeted the Muhaya compound in Riyadh where many Western and Arab foreign consultants and contractors were housed. The suicide car bomb killed two people and hurt many others November 9, 2003. The assailants utilized small arms fire to force access to the compound and then drove the bomb in. The assault was marked by a lack of real Western casualties, and the Saudis attributed that to a lack of hard intelligence on the part of the terrorists. The victims were mostly Arabs, particularly Lebanese. The attack had been preceded by the closing of the US Embassy in Saudi Arabia and warnings from the British Embassy in Bahrain over indications that terrorists were planning to strike.[405]

The third major attack took place on April 21, 2004. A car bomb was detonated in Riyadh near the Saudi General Security building where the Interior Ministry is located. Five were killed with an additional 147 wounded. The bomber struck at a time when most Saudis were leaving the workplace. Though the building sustained major damage, the blast came amidst successful Saudi efforts to diffuse five other car bombs around the kingdom.[406]

The Brigade of the Two Holy Shrines, a group who had struck the kingdom before, claimed responsibility for the bombing. Saudi officials have reason to believe that the group is allied with Al Qaida, pointing to the group's pronunciations that it would attack the country, the fact that an urban center was bombed, and the attempt to utilize six simultaneous bombs as evidence that the terrorist group had a hand in the bombing. The Brigade of the Two Holy Shrines represents one of the most visible and successful franchised terror groups. They seem to draw inspiration from Al Qaida, though how interconnected their organizations are remains unknown.

Underscoring these attacks by Al Qaida and its affiliates on the US and its allies in the war on terror was a tape released in April 2004. The tape, supposedly made by Osama Bin Laden, offered a truce to those European nations who withdrew their forces from Muslim nations. Were they to do so, Bin Laden promised to refrain from attacking them. Though the offer was immediately rejected by Britain, Germany, and other European nations, its impact could still be significant.

Observers see the offer as another political tactic by Al Qaida. Bin Laden and his associates want to appear as though they offered an alternative to continuing violence and that they were roundly rebuffed.[407] It is an attempt at boosting his legitimacy, to indicate that he is willing to negotiate and not engaged in a nihilistic campaign against most of the world. Ironically, as many have talked about the US winning the hearts and minds of Muslims and Arabs as a precursor to success against terrorism, Bin Laden appears to be trying to reverse the tactic. It is unlikely that many in the Western world would change their opinion of the Saudi, but it may alter the opinion of some Muslims or bolster the opinion of those Muslims who believe in Bin Laden.

The tape could still have a damaging effect on the Coalition. Threats and attacks already succeeded in getting the Spanish to pledge that they will remove their troops from Iraq. Al Qaida is aware that the public in some countries cannot stomach a terrorist attack on their own soil and would thus clamor for withdrawal to prevent such a possibility.[408] This could cause cracks in the coalition not only in Iraq, but in Afghanistan as well. The involvement of the international community is vital to the long-term success of each nation-building project, and if countries display that they will be held hostage by the threat of terrorism both missions will fail. It is important that other coalition countries not repeat the Spanish response otherwise it will legitimize the threat or use of terrorism as a means to achieve a political end.

The Limitations of the Afghan Conflict and Lessons for Iraq

All of these factors provided an equal warning about going from a defeat of an extremely weak opponent, like the Taliban, to fighting a much stronger opponent like Saddam Hussein's Iraq. Iraq was a far better organized, stronger, and less unpopular tyranny. It was also a power with modern internal security services and 2,200 tanks, nearly 400 aircraft, and heavy armored forces capable of serious war fighting. It retained an active air force and, more importantly, had rebuilt much of its land-based air defense net and had large numbers of surface-to-air missiles, radars, underground command centers, and redundant optical fiber command and control

communications. It had at least some chemical and biological weapons, and probably some surviving Scuds and extended range Scuds.

The size of Taliban and Al Qaida forces -- and the performance of Afghan forces in their struggle with the forces of the former Soviet Union -- proved to be a poor measure of actual Taliban and Al Qaida war fighting capability and endurance. It was not possible to predict how long Serbian forces would hold out in Kosovo, or to tie estimates of battle damage either to confirmed kills or to Serbian political behavior. Similarly, the force ratios at the start of the Gulf War gave a greatly exaggerated picture of Iraqi military strength. So did Iraq's performance in the final battles of the Iran-Iraq War. This trend continued in the Iraq War, where the Iraqi military put up minimal resistance and collapsed within weeks.

If one considers the unique conditions of the Afghan conflict, and the luck that the US and Britain had with several key intangibles, it should be clear that Afghanistan is not Iraq, and that the military lessons of Afghanistan may at best have only limited applicability. At the same time, the fighting in Afghanistan also provides a warning about the dangers of putting too much emphasis on force strengths, military history, and the outcome of military analysis, and ignoring the fact that "intangibles" can suddenly and unexpectedly change the outcome of wars.

While the lessons of the US and British military experience in Afghanistan may not translate directly into warfighting experience in Iraq or any other case, they do show that factors like political and military leadership, morale, adaptability, and other intangibles could again lead to a far more rapid Iraqi collapse than force numbers would suggest.

The problem is that the uncertainties inherent in "intangibles" can work in two directions. They can also favor opponents. For example, Iraqi nationalism, and hostility to the US because of the Gulf War and sanctions, could have worked to harden Iraqi resolve, and produce much stiffer resistance than during the defense of Kuwait. Events like the catalytic collapse of the Taliban and Al Qaida were always *possible*, but were not *probable* or *certain*.

As a result, the Afghan fighting showed that US air and missile power, intelligence assets, and targeting capabilities became far more advanced than at the time of the Gulf War. They did not show, however, that the US could *count* upon their shock effect to weaken Iraq in the same way as they did the Taliban and Al Qaida forces. In the end, however, US military assets were able to achieve a similar effect, aptly dubbing the start of operations as "shock and awe", on the Iraqi forces.

There are several general similarities between the Afghan and the Iraq conflict. To begin with, both conflicts began as conventional wars, though Iraq was on a larger scale. The Taliban and Al Qaida forces collapsed rapidly under the Coalition onslaught. Iraq's military forces, those that chose to fight, melted away quickly in the face of Coalition force.

Both wars gradually shifted from a conventional war to a low intensity conflict where insurgents sought to ambush Coalition forces through mostly small units in remote locales. Guerillas in both countries launched a combined campaign of intimidation and propaganda to try to cow the populace and discredit the efforts of the Coalition.

Disturbingly, the remnants of the Taliban and Al Qaida appear to be learning from the insurgents' attacks against the Coalition forces in Iraq. Attacks in both countries frequently take the form of suicide or remote bombs. Insurgents in each conflict utilize hit and run tactics as well. Military personnel and international aid workers are targeted in an attempt to prove to the local populace that Coalition assurances of security are chimeras. One charitable organization official remarked, "The tactics seem to be working in Iraq, so it would be no surprise to us that we'd see them replicated in Afghanistan."[409]

In each country, the Coalition has faced a number of obstacles in its efforts at nation building. Security, particularly providing security for NGOs and contractors, is but one problem. Identifying indigenous political leaders that accurately represent the ethnic and religious makeup of the various regions in both countries has been extremely difficult. The abundance of private militias and the existence of loyalties between major figures in-country with major religious and political leaders in neighboring nations only obscures their intentions and raises questions of reliability. What role religion will play in the formation of the two new governments and the logistics of the first elections remain unsolved problems. The populations of each country are exhausted from thirty years of dictatorship and war.

There are, however, significant differences between the conflicts that should be addressed. The most obvious is the almost unqualified international support behind efforts to rebuild Afghanistan. More resources need to be allocated for the country, but the consensus is that the international community supports the mission. In Iraq, the dispute over whether to go to war and the meaning of UN Resolution 1441 has hindered nation-building efforts. Many countries that were opposed to the war believe that by providing substantive aid, they would be condoning the invasion. Spectacular kidnappings and attacks on foreign nationals in Iraq have reached a level not yet approached in Afghanistan and have further discouraged international assistance.

Another difference lies in the apparent volatility between ethnic and religious groups in each country. In Afghanistan, though serious ethnic and religious differences exist, these groups have not clamored against the Coalition plans for democracy. This may be due to the fact that the Pashtuns, the group who largely feared persecution and political exclusion for its involvement with the Taliban regime, have been brought into the government. Another factor may be that the warlords outside of Kabul, some of which have been brought into government, continue to manage their respective areas as personal fiefs. Thus, ethnic and religious differences have not boiled over into large demonstrations, rejection of the Coalition, or the fortification of towns.

In Iraq, serious divisions threaten the future stability of the country. In the north, the Kurds seek to maintain the large degree of autonomy that they have held for the past ten years. To the rest of the country, such independence is anathema. The Sunnis resent the loss of the various privileges they enjoyed under Saddam Hussein and fear the minority role they will assume under a democratic system. The Shias thirst for a quick turnover of power to Iraqi hands, where inevitably they would have the greatest voice in a democratic system. Amidst these voices are large numbers of people who clamor for security above political freedoms and thus yearn for a strong leader. The role of religion in government continues to figure prominently as do the

attempts by the Governing Council to maintain power and gain legitimacy. Such ethnic and religious tensions exist in Afghanistan, but up to now, they have not caused the difficulties that such problems have in Iraq.

Yet another difference involves the interplay of post war plans, indigenous expectations, and sources of revenue. Though the US had no off the shelf war plan for Afghanistan, it was able to develop one rapidly and, with international help, form realistic post-war plans. Several realities existed in Afghanistan that no doubt assisted post-war efforts. First, the Taliban had grown immensely unpopular prior to the war. Their ouster did not foster resentment in a significant portion of the population. Secondly, Afghanistan had experienced conflict and civil war for almost 30 years. The violence left the country with essentially no infrastructure. Thus, Afghan expectations of the Coalition were very small and easier to address at first. The services the coalition has provided to many Afghans were unheard of under the Taliban. Infrastructure improvement and the provision of services was something that Afghans were unaccustomed to and therefore did not have high expectations for. Lastly, most Afghans understand that the largest resource and source of export is in fact opium. There is not an abundance of a particular resource that provides immediate income for the country. The country cannot "get rich quick" off a particular commodity and most Afghans seem to realize that resources will have to come from foreign countries for the immediate future.

Iraq was and is different. The US had a war plan on the shelf for an invasion of Iraq, but planners overestimated the resistance the regime would offer. The most significant failure was the complete lack of any semblance of a post-war plan. International indignation at the war prevented the improvisation of a plan amongst a broad range of allies as was the case in Afghanistan. Once more, Saddam Hussein enjoyed support from far greater segments of the population than the Taliban did in Afghanistan. A number of Sunni communities were particularly loyal to the dictator and they sharply denounce the invasion and his overthrow. Deep resentment and anger abounds in many parts of the country. Secondly, Iraqis' expectations of the US and its allies were very high. In part, this was fueled by the fact that far more infrastructure and many more services, including health care, existed under Saddam than existed under the Taliban in Afghanistan. When Saddam's regime collapsed, these services vanished and the war wrought much damage on the existing infrastructure. Iraqis expected both services and infrastructure to be improved upon and up and running very quickly following the end to the conventional war. This has not occurred. Neither has a rapid devolution of political power from the US to native Iraqis. These facts stir greater resentment and anger and raise the suspicion that the US is for some reason not doing all that it can to restore Iraq. Exacerbating this problem and boosting expectations even higher are the Iraqi oil wells. Iraqis acknowledge that oil is a hotly desired commodity on the international market and should thus bring extensive revenue to the nation. They do not understand how the oil fields can continue to pump barrels of crude while they do not see rapid improvements in their daily lives. Iraqis had and continue to have a different level of expectations than their Afghan counterparts.

VIII. Conflict Termination, Nation Building, Grand Strategy, and the Aftermath of Military Victory

It has become clear that it may be much harder to win the peace than the actual war, particularly in terms of Afghan nation building and in ensuring that some Taliban-like movement does not arise in the future. There already have been an attempted assassination of President Karzai, the successful assassination of Afghan Vice President and Minister for Public Works Haji Abdul Qadir, serious clashes between warlords, the killing of Afghan tourism minister Abdul Rahman, and cases where Afghan factions have tried to use the US and British militaries to achieve their own tactical and political ends.

The Resurrection of the "Great Game"

Neighboring powers, like Iran and Pakistan, are starting again to play the "Afghan Great Game," and any effort to create even a federal or cantonal Afghan state faces major political, ethnic, and economic challenges. As the Gulf War, Lebanon, Somalia, Kosovo, and Bosnia have shown, even the most impressive tactical or strategic military victory can lose much or all of its meaning if it is followed by a diplomatic and political power vacuum or failure to achieve grand strategic goals.[410]

The Emerging Role of Pakistan

Pakistan has influenced events in Afghanistan since the formation of the two countries. Pakistan played a central role during the mujahadeen's struggle against the Soviet Union in the 1980's. Afghanistan's eastern neighbor trained many of the guerillas and Pakistan's intelligence service, the ISI, was responsible for distributing the arms to the fighters that were covertly supplied by the US.

Following the withdrawal of the Soviet Union, Pakistan initially supported warlords such as Hekmatyar and Massoud, but soon began to foster the Taliban. The Taliban enjoyed arms shipments from Pakistan, support during their assaults on the Northern Alliance, and invaluable training and information sharing from the ISI. Pakistan was repeatedly encouraged to cut ties with the movement following revelations of human rights abuses and religious extremism, but Pakistan saw the Taliban as an entity that they could control and a useful counterweight to both India and Iran. In addition, Pakistan used Afghanistan as a training ground for the guerillas it then sent into Kashmir to fight against India.

After the events of September 11, 2001, Secretary of State Colin Powell went to Pakistani President Musharraf and gave him a list of seven non-negotiable demands. These included overflight and landing rights in Pakistan, access to military installations and border patrol facilities, the sharing of intelligence and immigration information, a public condemnation of terrorism against the US and the September 11 attacks, the end of fuel shipments and Pakistani volunteers flowing into Afghanistan, and a diplomatic break with and subsequent war against the Taliban and Al Qaida.[411]

To the secretary's surprise, Musharraf agreed to each demand. Pakistan officially abandoned the Taliban though concerns remain that the ISI maintains contacts with the movement. There were, however, important collaborative efforts. Pakistani intelligence helped the US capture Khalid Sheik Mohammad, the alleged mastermind of the September 11 attacks and the number three figure in Al Qaida's hierarchy. In early 2004, Pakistan took more direct steps to confront the militants within its borders.

In response to concerns that the fiercely independent tribesmen in the area might be providing sanctuary to Al-Qaida, Pakistan resurrected an old British tactic of holding them responsible for turning in militants. Those who failed to provide the military with information and the whereabouts of the guerillas had their homes bulldozed and were fined. Fines can reach up to a million rupees. At least one tribe, the Ahmadzai, were hit with fines in February 2004 totally 5.4 million rupees for their part in rocket attacks on Pakistani installations.[412]

Pakistan was somewhat frustrated by their tactics' lack of success. Out of a total of 82 wanted guerillas, tribesmen turned over 48 and they were considered of low intelligence value.[413] Tribal shepherds and woodcutters are excellent guides through the mountain passes, and it has been reported that Al Qaida agents pay guides between $85 and $150 for safe passage.[414] Those Taliban and Al-Qaida elements that did not fight the Pakistani military, hypothetically, would have been flushed into Afghanistan and confronted by US forces. The border region is closely monitored by U-2 spy planes, Predator UAVs, and ground sensors placed along routes of likely transit.[415]

There remain some serious questions as to Pakistan's ability and resolve to hunt down Al Qaida remnants. In June 2002, Pakistan fought a group of Uzbek militants in Azam Warzak who sought sanctuary in a farmhouse. Despite having surrounded the fighters, approximately forty were able to escape.[416] During its contribution to Operation Mountain Storm, Pakistan claimed that the tenacity and level of resistance exhibited by Al Qaida elements during a clash near Wana indicated that 500-600 fighters might be protecting a "high value target," possibly Ayman al-Zawahiri, the figure acknowledged as Osama Bin Laden's second in command.

Several days later, as the Pakistanis sent a contingent of tribesmen to secure a surrender of the fighters, the chief Pakistani security officer in the Northwest Frontier Province admitted that many of the militants might have slipped through the surrounding Pakistani forces. They discovered several tunnels, one a mile long, that linked two tribesmen's houses and which extended beyond the military cordon. It is probable that numerous militants and possibly "high value targets' escaped from the battle via this underground route.[417] He also stated that Zawahiri's presence was little more than a guess on their part.[418] Pakistan killed an unknown number of militants and captured approximately 100, though the guerillas were able to capture a dozen Pakistani paramilitaries and government liaisons.

Reports speculated that the interrogation of al-Zawahiri's son, Khalid, who was captured in Waziristan prior to the confrontation between Pakistan and Al Qaida forces, revealed that Zawahiri might be in the area. A sweep of the Tora Bora mountains followed soon after his capture and it is believed that the operation was a direct result of the questioning carried out by the CIA and Pakistan's Inter-Services Intelligence Agency.[419]

Soon after the assault in South Waziristan, Al-Jazeera news network received a tape allegedly containing messages from al-Zawahiri to the people of Pakistan. In the tape, the figure denounced President Musharraf as a traitor and encouraged the military to topple him. He called on the border tribes who were targeted in the military operation to unite with the Taliban and expel Pakistan's military. The figure stated, "Musharraf seeks to stab the Islamic resistance in Afghanistan in the back. Every Muslim in Pakistan should work hard to get rid of this client government, which will continue to submit to America until it destroys Pakistan."[420]

The Waziristan area in Pakistan is an area of particular interest to the US military, though the ability of either Pakistan or the coalition to effectively operate in the region remains in question. Pakistani President Perez Musharraf has faced extreme domestic criticism for his support of US military efforts. During the operation in South Waziristan, the political parties opposed to President Musharraf clamored for a countrywide protest against the action.[421] Thousands eventually heeded the call, including 10,000 armed tribesmen in the Bajaur and Khyber regions.[422]

An umbrella organization of five Islamic parties, the Muttahida Majlis-e-Amal, a group allied with Musharraf, openly criticized the president for killing Muslims.[423] Members of the Pakistani military and intelligence services are suspected of providing support and safe havens to members of the Taliban and Al Qaida, and they strongly condemn Musharraf's cooperation with the US. He has narrowly escaped two assassination attempts that were linked to Al Qaida, and the presence of US forces in Pakistan working in conjunction with the military or alone would likely endanger his regime further.[424] If Musharraf were toppled, the US could face an Islamist regime friendly to Al Qaida and armed with nuclear weapons.

The confrontation between Pakistan and the militants in the Wana region raises two concerns. First, the failure to contain the fighters and the failure to discover the escape tunnels calls into question Pakistan's ability and dedication to combating the remnants of Al-Qaida. The Pakistani military once backed the Taliban and it is unknown whether elements within the military harbor sympathy for the fighters as well as the ability to disrupt operations. The police chief in Orgun claims, "Pakistan's tongue is with the U.N., but its heart is with al Qaida."[425] Pakistan outnumbered the guerillas 5,000 to, at most, 600 and it is difficult to understand how a well-coordinated and committed offensive would fail to bottle them up. When the confrontation ended on March 28, though Pakistan could claim to have killed 60 militants and arrested a further 163, it failed to take the fight to the remaining fighters.[426]

Pakistani military forces gave the residents in the Wana region a deadline of April 20 to turn over any "foreign fighters." The deadline was regarded as somewhat flexible depending on the success of the 2,000 member irregular army formed by the local tribes to root out the militants. Members of the Zali Kheil tribe blame militants for battles between Pakistan soldiers that have damaged their villages. President Musharraf believes that the perpetrators of the attempts on his life have taken refuge in the Wana area.[427]

While Pakistan has provided the US with valuable intelligence, it has not proven that it has the capability or desire to root out the insurgents in its own territory. The Afghani security chief for the southern Zabol Province declared, "We arrested two Talibs a month ago, and they

told us Pakistani colonels told them to destabilize Afghanistan."[428] Fighters frequently launch attacks in Afghanistan and then slip back across the border.

In regard to the irregular army created by tribesmen to hunt for foreign fighters around Wana, there are some serious questions. The US and Pakistan wants all of these fighters turned over to Pakistani officials. The tribesmen say that they will fight them if they have to, but they assert that their most important goal is for the militants to disarm. They insist that they are welcome to stay and will not be molested if they turn in their weapons and subject themselves to tribal laws.[429] Such a resolution will not likely prevent further militant forays into Afghanistan and will decidedly not satisfy Pakistani or American expectations. In addition, the ad hoc and undisciplined nature of the tribal force draws into question its effectiveness and cohesion. It is unlikely that the tribal army will achieve any noticeable success.

Secondly, the importance of tribal politics has been brought into stark relief. The Ahmadzai tribe provided the fighters with sanctuary. During a ceasefire, Pakistan dispatched a delegation of tribal leaders into the militants' territory to try and broker a surrender. These tribal leaders agreed to organize a tribal militia of up to 2,000 fighters to root out insurgent forces in the region.[430] Clearly, tribal connections and influence are vital in isolating and eliminating the insurgents. Pakistan, Afghanistan, and the US must make a more concerted effort to develop ties with local leaders and provide them with the security and incentives they need to operate independently from the Taliban and Al Qaida.

Another benefit of such ties is that they will reveal what tribes cannot be trusted and which actively support the militants. In one successful example, a group of Green Berets aided a group of Afghans saw several old Taliban tanks into pieces. The Afghans sold it off and built a medical facility. In return, the Afghans repeatedly provided the soldiers with information concerning Taliban and Al Qaida travel routes.[431] Trustworthy relationships are key, whereas superficial or shallow contact can have disastrous results. The deputy governor of the Zabol Province asserted, "Until the Americans are on the ground and negotiating with local community leaders and disarming them, they will not win."[432]

Fighting in a Tribal Environment

Yet successful operations in Afghanistan are not assured by cultivating close local relationships alone. Coalition and Pakistani forces have to contend with strict tribal codes and religious protocols. Blood feuds, ancient rivalries, and collateral damage make fighting in a tribal environment a daunting and confusing mission.

During Pakistan's operations in South Waziristan, many tribes viewed the sweep as an invasion, having lived autonomously. Tribes also viewed the incursion as a breach of Islamic values. When Pakistan encountered Muslim militants, they tried to detain them, and failing that, to kill them. These conservative tribes take very seriously the Islamic edict that to kill another Muslim is to betray the religion. Once more, the militants were guests of the tribes, and Islamic tradition dictates that the host is responsible for their protection. Mullah Omar Muhammed gave a similar explanation for why he could not turn Osama bin Laden over to US forces. Thus, many

tribes viewed the Pakistani military operations and contradicting the very Islamic laws that they lived by.[433]

A "friendly fire" incident reveals another complication when dealing with tribes. The US accidentally bombed a group of Afghanis, killing six, who had no ties to the guerillas. They had acted on a tip from a local interpreter whom, it was revealed, had an ongoing feud with the individuals who were bombed. The dead included two children of a former provincial governor loyal to President Hamid Karzai's government.[434] Reports indicate that interpreters are frequently recruited from the warlords' various followers, and it is possible that interpreters could give false information to eliminate personal rivals, or rivals of the warlord they remain loyal to. The Afghan interior minister stated that most of the interpreters utilized by the US are allied with the warlord Gulbuddin Hekmatyar, whom the US considers an enemy and a threat to stability.[435]

One Afghan commented, "Sometimes people have disagreements over land, and one tells the Americans the other is with al Qaida so they will bother him."[436] Such accidents, and the bulldozing Pakistani tactics, are likely to turn tribes against the coalition and boost the popularity of the insurgents.

Once more, the battle in South Waziristan and the accompanying public outrage could be a harbinger of a worsening internal security problem within Pakistan. Several military convoys were attacked as they either patrolled near or were sent to resupply the forces fighting the militants. On March 23, militants fired three missiles at Peshawar, the capital of Pakistan's Northwest Frontier Province. The attack, targeting a major city with missiles, was unusually brazen. The Central Kurram region, close to the Tora Bora mountains, may be emerging as the next tribal area to oppose the Pakistani military. In a sequence of events that mirrored what happened in South Waziristan, Pakistani forces came under attack, fought back, and then offered an ultimatum. Militants attacked the army post in Tari Tang with rockets. Following the assault, Pakistani commanders told the nearby Moosazai tribe to turn in the militants or face the destruction of their homes and property.[437] The Moosazai appear to have ignored Pakistan's ultimatum.

It is also unclear at this point how the US will really attempt to come to grips with this aspect of the war, if at all. It is very clear that the Department of Defense does not want to keep US forces engaged or provide massive support to an allied peacemaking force. The preferred goal seems to be to try to create an Afghan national army and police force. On this front, however, the US faces numerous challenges.

The Afghan National Army

The US and other coalition partners have set a goal of establishing a 70,000-person[438] Afghan National Army (ANA) of up to 25 battalions[439] within five to seven years[440] that will have the skills, weaponry, and discipline necessary to assist in maintaining peace and stability within Afghanistan. Within the Afghan Army there will be a heavy brigade with tanks, armored personnel carriers, and approximately 2,000 soldiers.[441]

In April 2002, US Army Special Forces began training the first battalion of recruits for the Afghan National Army. Retaining recruits has been difficult due to a variety of issues, such as low pay and ethnic tensions. The recruits are paid $30 per month during their training and $70 per month afterward. The $70 per month wage is a $20 per month increase over the initial wage that was offered to them, however, it is still cited as being insufficient for supporting a family and a cause for dropout.[442] The Afghan Defense Ministry claims that the troops sent by the various militias to the ANA were of poor quality and unable to stand the intense training. The militias retained the seasoned and most professional fighters.[443] Out of the first class of trainees, about half of them dropped out. The dropout rate has declined greatly, however, and now about is down to about 25%.[444] As of early 2004, the ANA featured approximately 7,000 soldiers and had suffered some 3,000 desertions since its inception.[445] The Defense Ministry intends to bill defectors for their training if they do not return to the army.

Training involves a ten-week course of instruction. French, British, and US soldiers are responsible different aspects of the instruction at the Kabul Military Training Center. US soldiers provide basic military training, French soldiers provide officer training, and British soldiers provide platoon leadership training.[446] The eighth battalion of trainees is special in that it is the first group of recruits whose training is being conducted by Afghan NCOs – a situation that US military spokesperson, Col. Roger King, has identified as showing "the growth of the army.[447] As of spring 2003, about 4,500 Afghans had completed training[448] and two brigades are prepared to go into action.[449] In January 2004, training for the army sped up from 6,600 soldiers per year to 10,800 soldiers per year. As of March 2004, the ANA had 6,500 soldiers organized into 14 battalions, seven of which had seen significant action. By 2004, the coalition hopes to establish a corps that will be based in Kabul and will be able to bolster security within Afghanistan on an as-needed basis, take on remaining Taliban and Al Qaida forces and maybe even the forces of rebellious warlords.[450] By the summer of 2004, the total number of Afghans who will have completed training are projected to number between 9,000 and 12,000.[451]

Lt. Gen. Dan McNeil has suggested that at that time, it may be possible for the US to begin reducing the number of soldiers it maintains in Afghanistan.[452] It is noteworthy, however, that Afghans are not being trained to pilot aircraft, therefore, the Afghan Army's aviation needs will continue to be provided by the United States into the foreseeable future.[453]

Difficulties Training the Army

In order to promote the legitimacy of the new army, an effort is being made to have the ethnic composition of the army be acceptable to Afghanistan's various ethnic groups, who might otherwise view the army as a threat.[454] For the time being, the Afghan Ministry of Defense is dominated by Tajiks who were part of the Northern Alliance, however, efforts are being made to reform the organization by giving it a more diverse ethnic makeup. The Ministry of Defense now chooses the recruits. As of February 2003, the ethnic makeup of the recruits was 42% Pashtun, 27% Tajik, 10% Hazara, 7% Uzbek, and the remaining 14% from various other ethnic groups.[455] For comparative purposes, the overall Afghan population is 44% Pashtun, 25% Tajik, 10% Hazara, 8% Uzbek, and 13% other ethnic groups (Aimaks, Turkmen, Baloch, and others).[456] Additionally, in order to build a sense of national unity between the soldiers of different ethnicities, army units are intentionally made to be ethnically diverse. According to Major Bill

Gervasi, the executive officer at the Kabul Military Training Center, the blended unit concept is effective and after five or six weeks of difficult training the trainees act as comrades.[457]

In May 2002, coalition nations met in Geneva to discuss funding the new army and concluded that roughly $290 million would need to be spent to cover the costs of creating and maintaining the new force. At that same meeting, the US agreed to pay $70 million of the total cost. Additionally, the Afghan Ministry of Defense (MoD) agreed to provide weapons and assist in the recruitment of men from Afghanistan's 32 ethnically diverse provinces.[458] Despite these donations, Gen. Craig Weston, the US commander in charge of creating the ANA, announced in early 2004 that he lacked sufficient funds.[459]

The lack of a basic communications infrastructure, however, has hampered efforts to recruit enough soldiers and to start training on time. Often only two-thirds of a battalion is present at the start of a ten-week-long Program of Instruction (POI). Additional recruits will slowly arrive throughout the first few weeks of the POI, causing problems for the instructors who cannot continually extend the training period and retrain those recruits who missed the initial weeks. While the US Army has organized airlifts to transport recruits from more remote locations to the training center outside of Kabul, starting and completing training on time remains a long-term challenge.[460]

Further complicating the situation has been the inability of the Afghan MoD to follow through on its pledge to provide weapons, which has led to a shortage of Kalashnikov series assault rifles, medium machine guns, rocket-propelled grenade launchers, recoilless rifles, and mortars. To help alleviate the equipment shortage, Romania has donated 1,000 AK-47s and over 200,000 rounds of 7.62mm ammunition, Turkey has provided uniforms, Italy has supplied antiriot gear, and Germany has provided vehicles.[461]

Outside nations cannot help resolve the shortage of recruits, and unless regional warlords agree to relinquish control of their troops and arms, there may be only limited success in creating a multi-ethnic, national army. The US had initially hoped that each of Afghanistan's 32 provinces would provide twenty men per battalion, thus ensuring an ethnically mixed force. Several provinces, however, have been unable to supply such manpower.[462]

During the training process, US and other coalition instructors must overcome language barriers, as well as the educational background of the Afghan recruits, 70% of whom are illiterate. Language specialists must translate all orders into Farsi or Pashtu, and, in some cases, less known Afghan dialects. Though recruits are continually assigned to multi-ethnic teams and encouraged to allow their competitive instincts to be directed towards defeating other teams rather than one another, ethnic divisions remain a stumbling block to the successful formation of the ANA. Further compounding uncertainty about the growth of the ANA is the unclear status of 18,000 former United Front Mujahideen fighters who are under the command of Afghan Defense Minister Marshal Fahim Khan and are currently being "reorganized." Some observers feel that Mr. Khan opposes the development of a multi-ethnic Afghan army because such a force would undermine the level of power and influence that ethnic Tajiks, who comprised much of the Northern Alliance, currently hold in Afghanistan's armed forces.[463]

Military officials agree that ten weeks is not nearly enough time for troops to develop the skills necessary for effective performance in an environment like Afghanistan. The lack of previous experience and the shortened training period are further affected by the lack of a pre-existing corps of non-commissioned officers (NCOs). US commanders are working towards a resolution of this problem. In an attempt to address longer-term training deficiencies, the US plans to organize additional "follow-on training courses" which will allow the new army to refine and develop much needed "real world" skills. French troops indicate that it will take between one and two years for the initial five battalions to become the strong "nucleus" of the new army. However, before additional training courses can be initiated, long-term equipment and funding problems must be resolved.[464]

It is likely that the Afghan government will remain dependent on Western aid to alleviate both of these problems. In the absence of an income tax, Afghan Finance Minister Ashraf Ghani estimates that even if warlords begin paying the customs taxes that they owe the new government, only $80 million of the roughly $460 million total Afghan budget will be funded. Western nations will likely be called upon to assist in the elimination of this revenue shortfall.[465]

While US military officials are cautiously optimistic that the security situation in Afghanistan will remain stable enough to allow new battalions of the ANA to receive additional training and develop additional confidence and discipline, the security situation could potentially worsen, threatening the survival and long-term prospects for the ANA. Additionally, the immediate mission and role of ANA battalions, once out of training, remains unclear. Given the challenges that must be overcome before the ANA can be considered an effective security force, a continued US/Coalition military presence in Afghanistan will be a key element of any post-conflict strategy.[466]

The Role of NATO

NATO pledged to continue deployment of its 6,000-man peace keeping force. The alliance maintained that Afghanistan remained its top priority. This is significant considering that an early 2004 UN report concluded that the government no longer controlled 14 out of the 22 districts in Afghanistan.[467] More broadly, this meant that NATO would, in the short term, not become engaged in Iraq. Secretary-General George Robertson, speaking on behalf of NATO, stated, "NATO at the moment is focusing on one of the greatest challenges in its history. The allies have made it clear that has to be the priority."[468]

Robertson's efforts to increase this force, however, have been challenged. Belgium, Greece, Turkey, and Britain have all been unable or unwilling to contribute the material support supplies that would have to accompany a force increase.[469] One former NATO official stated that Lord Robertson had to "bludgeon" NATO into providing troops in Afghanistan with a few helicopters.[470] NATO's head military commander in Europe, Gen. James L. Jones, stated, "The alliance has agreed, the donor countries have been identified and yet we find ourselves mired in the administrative details of who's going to pay for it, who's going to transport it, how's it going to be maintained."[471]

Lord Robertson's efforts, and those of the new secretary general, have begun to yield some results. Gen. Jones, in addition to adding further reconstruction teams, declared that NATO would eventually provide security for the entire country. He outlined a plan where NATO would extend its reach to Northern and Western Afghanistan in the near future, followed by complete expansion thereafter. The separate, wholly US operation would be responsible for the areas it currently covers. Other NATO diplomats, in an about-face, stated that the NATO force could be expanded by as many as 1,500 troops.[472] Spain pledged to double its troop deployment from 125 to 250 by summer 2004.[473] Unfortunately, this number does not come close to the doubling of troops Lord Robertson called for. The newly elected prime minister of Spain, Jose Luis Rodriguez Zapatero, reaffirmed his country's commitment to Afghanistan. Reports indicate that deploying additional troops in Afghanistan while pulling them out of Iraq as Spain has announced it intends to do may be an attempt to decouple Iraq from the War on Terror.[474]

NATO diplomats expressed the view that the expansion of NATO's mandate could have wider international implications, specifically with regard to Iraq. Officials suggested that the structure and methodology that the alliance builds and refines in its operations in Afghanistan could be a precursor to a greater NATO role in rebuilding Iraq. Working in Afghanistan would provide vital lessons. One official commented, "You could see Nato taking over some areas in Iraq working in parallel with the US forces."[475]

The Problem of Nation Building

One of the Bush Administration's priorities has been to focus the military more on its traditional combat and combat-related roles and reduce its involvement in traditionally non-military missions, thereby easing the demand placed on the military's personnel and resources. The Administration has decided and the military agrees,[476] however, that it will have to become more active in the reconstruction of Afghanistan in order to bolster the national government and prevent the country from disintegrating. One of the key reasons for that is the refusal of other nations to contribute troops for a geographic expansion of the ISAF mission. As of early December 2002, the United States had approximately 60 civil affairs personnel in Afghanistan.[477] Over the course of the first year of Operation Enduring Freedom, the U.S. military rebuilt 49 schools; restored 75 wells; repaired bridges, roads, and irrigation canals; and constructed hospitals.[478] The expanded U.S. assistance effort will involve sending another 200-300 civil affairs personnel to Afghanistan.[479] The U.S. is going to be establishing safe havens in approximately a dozen cities from which civil affairs personnel can operate in relative security. Some people argue that the Administration's decision to become more active in reconstruction came at a time when the prime window of opportunity for success in that endeavor had passed, and some people think that the new plan does not provide enough assistance. Some aid workers are concerned that US military involvement in reconstruction will politicize such efforts.[480]

The events of July 1, when US firepower accidentally killed several civilians in Oruzgan province, appear to have caused the Bush administration and USCENTCOM to re-evaluate its initial view of the role that US military forces should play in Afghanistan. Following the incident, the commander of US forces in Afghanistan, Lt. General Dan McNeil, arranged for civil affairs officers and humanitarian workers to go to the areas affected by the US military action.

These civil affairs officers are to work closely with Afghan villagers and other US forces in rebuilding infrastructure devastated during the endless years of war that have occurred. Projects include the construction of wells, schools, and a power and water plant. Beyond these tasks, however, the goal of these forces is to win-over the "hearts and minds" of the native Pashtun population which, following the accidental US attack, expressed anger at continued US military operations in the province, long a haven of Taliban and Al Qaida militants.[481]

As the fighting in Afghanistan continues, however, US civilian and military leaders are examining the necessity of adapting the force mix in Afghanistan. With most remaining Al Qaida and Taliban fighters operating in small groups along the border with Pakistan, these officials argue that the next step in ensuring Afghanistan's future stability depends on the US military's ability to build a trusting relationship between itself and the ethnic tribes that make up the Afghan population. Such a mission would involve the participation of greater numbers of civil affairs officers than are currently stationed in Afghanistan and would entail expanding a current program under which the US maintains military contacts with several Afghan villages. Civil affairs battalions, though, are in short supply, as are other branches of the Special Forces, and there is a lack of sergeants to man future Special Forces teams. USCENTCOM is also evaluating the possibility of dispatching Army military police (MPs) to Afghanistan to serve as a quick-action protective team for US forces currently located throughout the country. Regardless of any personnel shortages, the fact that the US is reevaluating the role which the military will play in rebuilding Afghanistan signifies a realization on the part of the Bush administration that the problems that Afghanistan faces go far beyond the threat which remaining Al Qaida fighters pose.[482]

Nation building has been a major challenge, but the other warlords have not yet plunged Afghanistan into the bloody civil war many predicted they would. This may be partly due to the fact that Hamid Karzai's government still has little reach outside Kabul. Several of the smaller warlords have fought one another for the right to tax the opium farmers in northeastern Afghanistan.

There are signs, however, that suggest some warlords may be willing to lay down their arms. In December 2003, two rival warlords, Atta Mohammed and Abdul Rashid Dostum, relinquished scores of heavy weapons, including tanks, anti-aircraft batteries, and rocket launchers to the new Afghan army.[483] Ismail Khan, the warlord of Herat, went so far as to welcome US soldiers deployed in reconstruction teams to his city.[484] Whether the warlords will continue to demobilize and disarm when the coalition leaves remains to be seen. The major players are[485]:

Name	Ethnicity	Area of Control	Manpower	Recent Activity
Ismail Khan	Tajik	Governor of Herat	Several thousand	Forces battled Zaher Naib Zada's militia in Herat; Khan accused Zada of assassinating his son.
Gulbuddin Hekmatyar	Pashtun	Operates in but does not control the provinces of	Unknown, suspected 1-2,000.	Allied with the remnants of the Taliban; suspected

		Kunar, Nuristan, Khost, Paktia, Logar, and Pakistan's borderlands.	Leader of the Hezb-e-Islami militia; Enjoys a large sympathetic following due to his Pashtun background.	organizer of bombings and attacks against Afghan and US forces as well as President Karzai; CIA failed to kill him with a predator drone; believed to be involved in smuggling narcotics.
Atta Mohammed	Tajik	Parwan, Kondoz, Takhar, Baoakshan, Baghlan, Kapisa, Kabul, and Laohman provinces.	The former 7 Army Corps, approximately 20,000 troops. Allied with Afghan Defense Minister Mohammad Qasim Fahim.	Fought with Rashid Dostum's forces in September 2003 over control of the north and over Dostum's mandate to disband Mohammed's army. Shaky truce since October 2003, Rumsfeld met with both Dostum and Mohammed in December 2003.
Abdul Rashid Dostum	Uzbek	Faryab, Balkh, Samangan, and Jowjzan provinces.	Leader of the Junbish-e Melli-ye Islami party; President Karzai's security advisor for the north, commands 20,000 troops.	Dostum has been slower than Mohammed to relinquish heavy weaponry and has attacked several towns, claiming that they are disloyal to Karzai's government. Critics contend he is trying to solidify his area of control.
Barhanuddin Rabbani	Tajik	No personal control of any one area. Leader of the Jami'ate-e Islami party.	Former Northern Alliance forces remain nominally supportive, but it is not clear that they would ever break with warlords to support him.	Former Afghan president's refusal to step down in the 1990's helped fuel civil war. The theology professor is deeply conservative and has organized protests against progressive measures of the Karzai government.
Mohammad Omar	Pashtun	Unknown, rumored to be operating from the Pakistani border province of Waziristan.	Unknown, believed to control between several hundred to several thousand tribesmen and neo-Taliban forces.	Unknown, believed to be coordinating attacks on cooperative Afghans and Coalition forces. Level of cooperation with Al Qaida is unknown. Believed to be allied with Hekmatyar.

Source: Adapted from http://abcnews.go.com/sections/world/DailyNews/taliban_profiles.html and http://www.globalsecurity.org/military/world/afghanistan/intro.htm by author.

Ismail Khan has continued to be involved in heavy factional fighting and has refused to turn over the lucrative taxes he collects on trade across the border with Iran. On March 21, 2004, forces loyal to Khan clashed with Zaher Naib Zada's militia. Khan's son, Mirwais Sadiq was Afghanistan's aviation minister and fighting erupted after his death was attributed to Zada's fighters. Some officials claim that there was a failed assassination attempt on Khan himself.[486] Khan's forces reclaimed Herat and President Karzai sent 1,500 Afghan troops to quell the conflict and Zada fled the city. The fighting was regarded as some of the worst since the ouster of the Taliban.[487] Khan's reaction to the death of his son is likely to be a harbinger of future warlord behavior. The death of a family member frequently sparks a blood feud between families or factions. Should Khan seek revenge and initiate further factional war, Herat, which has been largely peaceful, could become a new security concern. Civil war in the region is likely to provide the Taliban and Al Qaida with the chaotic atmosphere it relies on to operate and afford it a presence in a previously unmolested region.

The US has gradually eased back its support of the Afghan warlords, including instructing Special Forces to stop aiding them. Further disarmament of their forces is necessary as well training programs to properly integrate the former militias into civil society. US Secretary of Defense Donald Rumsfeld met with two competing Afghan warlords in December 2003. They were former Northern Alliance commanders who had helped the US with military operations in Afghanistan. Though no one would advocate cutting ties completely with former allies, the warlords represent a great threat to the fledgling Afghan democracy. Continuing high-level visits denotes an ongoing legitimacy that boosts the profile of the warlords in the eyes of the Afghan people. For democracy to flourish, strongmen have no place unless they subject themselves to the rule of law and democratic principles. It remains to be seen whether any of the warlords are willing to make a concerted effort.

The Unique Economics of Nation Building and Conflict in Afghanistan

The warlords present an additional set of problems. Many of them are financed by the cultivation of poppies used in manufacturing heroin. Opium production has sky rocketed as the US has allocated resources to other missions within Afghanistan. The State Department insists that Al Qaida was partly financed by heroin poppies (75% of the world's heroin poppies are grown in Afghanistan on 61,000 hectares of land) and that warlords divert some of the profit to terrorist groups. Defense officials believe that Al Qaida remains committed to using their drug profits to build their weapons arsenal as well as to acquire the necessary components to fashion a radioactive or "dirty bomb".[488]

A former senior counternarcotics official stated, "The linkage between terrorists and drug trafficking are only now becoming clear and are a great concern. The methods by which terrorists and other underworld actors move drugs are the same routes that are used to move weapons, terrorists, and, potentially, [weapons of mass destruction]."[489]

Officials maintain that the much-publicized ban on opium by the Taliban was nothing more than an effort to increase its value. Thus, the US has pledged to target opium crops and warlords involved in drug trafficking.[490] The US must effectively target the drug barons to prevent the newly emerging Afghan state from being dragged into perpetual narco-conflict like

Colombia. Such an effort might improve relations with much of Europe that were strained during the Iraq war. Though only 7% of the heroin in the US comes from Afghanistan, most of the heroin found in Western Europe has its origins there. By cracking down on a major source of Europe's drug addiction, the US might find EU member states more willing to invest and provide the resources necessary to stabilize Afghanistan. However, by targeting opium and the warlords involved in drug trafficking, the coalition could find itself fighting former members of the Northern Alliance that had previously helped them overthrow the Taliban.

A UN human rights commission concluded that a number of the warlords involved in the drug trade were using their profits to purchase property within various Afghan cities. They targeted real estate that was likely to skyrocket in value were corporations and investment to return to the country. More disturbing, the commission discovered that several Afghan Cabinet members were similarly purchasing choice property, but at an absurdly undervalued rate. The organization singled out two ministers, including the defense minister, who had purchased land for approximately $1,000 and sold it for upwards of $100,000. Government participation in such a 'land-grab' creates a culture of impunity, encourages and legitimizes such activities by the warlords, and foments resentment among average Afghans. The Afghan government needs to prohibit profiteering among its officials, otherwise it runs the danger of developing the perception that it is corrupt and unrepresentative.[491] Such perceptions plagued and eventually doomed the governments that preceded the Taliban.

The Financial Piece

In March 2003, Assistant Secretary of State for South Asian Affairs, Christina Rocca, provided an overview of foreign assistance to Afghanistan. She stated that in Tokyo, in January 2002, 60 countries and other organizations committed to provide $4.5 billion in economic development and reconstruction assistance for Afghanistan over the course of six years.[492] She added that in March 2003, donors committed to providing $1.5 billion in reconstruction and budgetary assistance in 2003.[493] She stated that at those meetings that United States committed to providing $297 million and $600 million respectively.[494] She added that the United States is also helping the Afghan government gain access to assets that had been frozen and has made some initiatives regarding commerce, finance, and trade.[495] Additionally, she noted that USAID programs are directed in the areas of agriculture, education, employment, health, and private enterprise.[496] According to a USAID report dated March 13, 2003, total U.S. government humanitarian assistance for Afghanistan for fiscal years 2001-2003 is $780,950,886.[497] The following is a year-by-year breakdown of that total: FY 2001 - $184,367,625; FY 2002 - $531,431,913; FY 2003 - $65,151,348.[498]

The following chart gives a more detailed accounting of US humanitarian assistance to Afghanistan for fiscal year 2003. It is derived from a similar chart in the USAID report entitled "Afghanistan – Complex Emergency Situation Report #4 (FY 2003).[499]

USG AGENCY	IMPLEMENTING PARTNER	ACTIVITY	REGION	AMOUNT
USAID/OFDA	ACTED	Winter heating assistance	Mazar, Parwan, Takhar, Baghlan	$2,000,000
USAID/OFDA	Air Serv International	Air transport services	Countrywide	$1,579,694
USAID/OFDA	Cooperative Housing Foundation (CHF)	Urban shelter and winterization	Kabul	$2,083,388
USAID/OFDA	International Medical Corps (IMC)	Clinics, mobile health teams	Badghis, Heart	$1,781,000
USAID/OFDA	IMC	Health, water, and irrigation	Bamiyan, Khost	$3,856,405
USAID/OFDA	Shelter for Life (SFL)	Urban shelter and winterization	Faizabad, Heart, Kunduz	$608,614
USAID/OFDA	SFL	Shelter reconstruction (Nahrin)	Baghlan	$212,868
USAID/OFDA	SFL	Winter heating assistance	West, Southeast	$664,274
USAID/OFDA	SFL	Winter heating assistance	West, Southeast	$448,138
USAID/OFDA	SFL	Emergency road rehabilitation	Kunduz, Takhar	$314,167
USAID/OFDA	UN Office of Project Services (UNOPS)	Emergency road repair and snow clearance	Countrywide	$1,000,000
USAID/OFDA	World Vision	Emergency shelter winterization	Badghis	$400,000
USAID/FFP	WFP	30,000 MT Wheat		$13,653,000
USAID/FFP	WFP	20,000 MT wheat; 3,300 MT Vegetable oil		$13,049,800

STATE/PRM	Community Housing Foundation	Winterization assistance for returnees	Kabul City	$150,000
STATE/PRM	Shelter for Life	Shelter and winterization assistance	Kabul City, Takhar, Kunduz	$1,350,000
STATE/PRM	U.N. Development Program	Afghan Conservation Corps	Countrywide	$1,000,000
STATE/PRM	UNHCR	Refugee assistance and protection	Countrywide	$21,000,000

Yet President Hamid Karzai, among other Afghan officials, requested further financial donations from the international community. Though donors are fearful that the money might be misspent or seized by regional warlords, the Afghan foreign minister assured leaders that the money would be easily accounted for and invested immediately in infrastructure, to fight the drug trade, and to provide security. The UN reported that the upcoming Afghan election could exceed $100 million. The Afghan government sought $4 billion for 2004 and a total of $27.5 billion over the following seven years. It is not clear that Afghanistan will receive all of the money that it requested. A donor conference in Germany took place in March-April 2004, yet the organizers had the modest goal of raising $9 billion.[500] The US pledged an additional $1 billion in new aid to the Afghan government for 2004.[501]

Threats to the Future Election

President Karzai announced in early 2004 that the parliamentary and presidential elections that were scheduled for that summer were to be pushed back until September. The two largest issues were security and voter registration. Analysts feared that militants would use the opportunity of an election to launch a wave of attacks against polling stations and government installations. Observers pointed out that but a small fraction of Afghans had been registered to vote and concerns remained over where, how, and if women were to vote despite the official law enfranchising women.

The U.N. Undersecretary-General for Peacekeeping, Jean-Marie Guehenno, stated that it was vital to the security of the elections to have all heavy weapons accounted for by June and to rapidly demobilize the many militias.[502]

This was a completely unrealistic goal. The Coalition still controlled little outside of the main cities and the numerous militias were still under control of the warlords, many of whom were and are members of the government. They had no incentive, threatening or otherwise, to give up their private armies. Weaponry remains scattered all across the country from years of

fighting and it is impossible to determine when and if most of the heavy weaponry is under lock and key.

As far as voter registration is concerned, more money can be put into the program and tighter security can be placed at registration centers, but the fact remains that the first election is likely to take place without overwhelming Afghan participation. Difficulties with reaching a polling center, disagreements over the right of women to vote, and cynicism concerning democracy are all likely to occur. Security remains problematic. Mullah Omar, in an interview with a Pakistani journalist, stated, "Our position is clear: we will kill all those who register themselves as voters or cast votes in the elections."[503] Omar has threatened to unleash a wave of 2,000 suicide bombers against all manner of targets in Afghanistan.

Yet indefinitely postponing the elections will not make these realities disappear. While it is true more voters will be registered between now and September, the security concerns and threat of attacks are not likely to improve drastically. The US and Coalition allies have not indicated a massive influx of troops or the adoption of new strategies. Were they to do so even now, it is unlikely that such efforts would even take effect by September.

Holding the elections on the announced date in September is extremely important. Indefinitely postponing the elections gives the appearance that the militants have continued to hold the country hostage despite the overthrow of the Taliban. Even if they attack, and the likelihood is that the question is where and when rather than if, and kill Afghans, elections give Afghans a stake in the success of democracy in Afghanistan. There is not a time in the foreseeable future when elections will be markedly more secure. Instead, it is important to give Afghans the means to decide their own leaders and to begin to marginalize the political impact the remnants of the Taliban have on the future of their country.

Grand Strategy?

It should also be stressed that even if the Afghan problem were solved, it would still not be a grand strategic victory. If the US must mix force with diplomacy and allied support in some 68 countries, it must have a broader definition of victory and be able to both communicate that definition and progress towards meeting it. As of this writing, US efforts at this are episodic at best, and the overall grand strategy and conflict termination aspects of the US battle against Al Qaida are as unclear as its goals regarding the defeat of "global terrorism."

There is a curious further irony in the fact that the US government and Defense Department seem to have been only marginally more concerned with planning for conflict termination and grand strategic outcomes in Afghanistan, than they were during the Gulf War, the war in Kosovo and the Iraq War. This failure to give conflict termination the same priority as military operations, and grand strategy the same priority as strategy, is particularly striking because many senior officials in the present Bush Administration have been so deeply involved in trying to come to grips with the end result of a similar failure in the Gulf War and the survival of Saddam Hussein.

There is a similar irony in the fact that their legitimate criticism of the vacuous moral posturing of the Clinton Administration and the hopeless optimism and false promises surrounding the Dayton Accords and conflict aftermath in Kosovo has tended to be replaced by an equally vacuous effort to avoid being deeply involved in the aftermath of Afghanistan.

Indeed, the fact remains that grand strategy always requires more than military victory and any commander or policymaker who cannot recognize this fact indulges in strategic infantilism at the cost of becoming a strategic jackass. Conflict termination cannot always end in successful nation building. Transforming cultures, political systems, and economies is far harder than most advocates of nation building would like to admit, and is often impossible or too costly to attempt. Nevertheless, victory is only victory when the use of force is tied to a satisfactory political and economic outcome and a satisfactory level of post-conflict stability.[504] On May 1, 2003, Secretary of Defense Donald Rumsfeld stated that major combat operations in Afghanistan were over.[505] The statement is reportedly intended to persuade more countries to become involved in reconstruction efforts.[506]

To put it bluntly, Afghanistan is yet another warning that American war planners must plan for true victory, and not simply the defeat of enemy military forces. The time – if it ever existed -- in which military planners could only plan for war is long over. In fact, it seems fair to say that war plans that do not include peace plans have always been signs of gross military incompetence. The fact that most post-conflict peace involves some form of prolonged occupation, peace keeping, and nation building may be unpopular, but that does not change the fact that military action cannot have satisfactorily positive lasting benefits unless the military (and their political leaders) are willing to pay the necessary price. In war, more than any other human activity, no one should begin what they are not prepared to finish, and few modern wars will have outcomes where desirable governments, economies, societies, and patterns of alliance magically occur simply because the fighting ends. The officer who cannot adjust to this reality is unfit to wear his or her uniform. The political leader unwilling to face this reality is, at best, a recipe for military futility and, at worst, a recipe for disaster.

Annex One: Chronology of Operation Enduring Freedom

The following is a summary of Operation Enduring Freedom. Much of it is taken directly from the Central Command website while the most recent events are taken from periodicals: [1]

- **Sept 12** - As the country reeled from the enormity of the terrorist attacks, Secretary of Defense Donald Rumsfeld asked U.S. Central Operations Command (USCENTCOM) to prepare some "credible military options" to deal with the growing menace to national security.
- **Sept 21** – Army General Tommy Franks (Commander in Chief CENTCOM) briefed President George W. Bush on USCENTCOM's plan and its associated timelines.
- **Oct 2** - A final briefing to the President resulted in the approval of Operation ENDURING FREEDOM. *Mission: to destroy the Taliban as a haven for terrorist networks with global reach and to eliminate the Al Qaida network itself.*
- **Oct 7** - Combat operations commenced with a mix of air strikes from land-based B-1, B-2, and B-52 bombers, carrier-based F-14 and F/A-18 fighters, and Tomahawk cruise missiles launched from both U.S. and British ships and submarines. In conjunction with air strikes, USCENTCOM also initiated humanitarian airdrops of food.
- **Oct 13** - Four C-17 transport aircraft began dropping more than 68,000 rations per day into Afghanistan.
- **Nov 9** - Mazar-e Sharif was the first Afghan city to be released from the Taliban's grip.
- **Nov 11** - Taloqan was liberated from the Taliban.
- **Nov 12** - Herat and Shindand were liberated.
- **Nov 13** - Afghanistan's capital Kabul was liberated.
- **Nov 14** - Jalalabad was liberated. The day also marked the rescue of eight detainees, including two American women, who had been jailed by the Taliban for preaching Christianity.
- **Nov 15** - The Coalition Joint Forces Land Component Command (CJFLCC) assumed responsibility for land operations within USCENTCOM's area of responsibility, including tactical control of all coalition and joint land forces.
- **Nov 25** - Mike Spann became the first American hostile fire casualty of Operation ENDURING FREEDOM. A Central Intelligence Agency operative, Spann was interviewing prisoners in Konduz when the inadequately disarmed prisoners rioted. "American Taliban" John Walker Lindh was captured following the uprising.

---

[1] "Operation Enduring Freedom: Significant Events Timeline Oct. 01-Oct. 02," Central Command website, <http://www.centcom.mil/CENTCOMNews/stories/operation%20enduring%20freedom/10_02/10_02_05.htm>.

- **Nov 25** - U.S. Marines of Task Force 58 seized Objective Rhino, a desert airstrip south of Qandahar, and established a forward operating base (FOB), which was eventually augmented by Coalition forces.
- **Nov 26** - Konduz, the last Taliban stronghold in northern Afghanistan, fell to opposition forces.
- **Nov 30** - Bagram Airfield near Kabul became a forward operating base.
- **Dec 4** - The first U.S. Army units deployed to Mazar-e Sharif.
- **Dec 5** - The outlines of an interim government were developed in a meeting held in Bonn, Germany.
- **Dec 7** - Qandahar, the last major Taliban stronghold in Afghanistan, surrendered to forces under the command of Hamid Karzai.
- **Dec 13** - Task Force 58 secured Qandahar Airport.
- **Dec 13** - With land transportation routes into Afghanistan now open, the United States ended humanitarian airdrop missions. More than 2.4 million daily rations had been delivered by air to the Afghan people during Operation ENDURING FREEDOM.
- **Dec 9** - The Friendship Bridge from Termez, Uzbekistan, was opened, allowing the delivery of relief supplies.
- **Dec 19** - Line-haul transportation of food to Afghanistan began.
- **Dec 22** - Hamid Karzai was sworn in as the prime minister of the interim government of Afghanistan. At the same time, the International Security Assistance Force (ISAF) was established in Kabul.
- **2002**
- **Jan 3** - ISAF consisted of 4,500 international troops under the command of British Major General John McColl.
- **Jan 3 thru 4** - Coalition aircraft struck al Qaida leadership complex at Zawar Kili, southwest of Khowst.
- **Jan 5** - As a result of actions near Khowst, Army Sergeant First Class Nathan Ross Chapman becomes the first military hostile fire casualty of Operation Enduring Freedom.
- **Jan 8** – Jordanian military forces opened a state-of-the-art medical facility in Mazar-e Sharif.
- **Jan 10** - 370 Taliban and al Qaida detainees were under the control of U.S. forces in Afghanistan and at sea. The first group of these detainees was flown to the U.S. Navy base at Guantanamo, Cuba, where a special facility known as Camp X-Ray had been prepared to house the detainees.
- **Jan 25** - Ariana, the Afghan national airline, resumed operations.
- **Jan 29** - The Marines of Task Force 58 were relieved in place by elements of the Army's 101st Airborne Division (Air Assault), which became known as Task Force Rakkasan (Japanese for "parachute").
- **Feb 8** – Military forces from Spain established a hospital at Bagram Airfield.
- **Feb 28** - A United Nations' C-130 transloaded 16 metric tons of humanitarian assistance material to UN vehicles at Qandahar Airfield, marking the first UN humanitarian assistance cargo flights into Afghanistan.
- **Mar 1** - Coalition forces from Australia, Canada, Denmark, France, Germany, and Norway joined United States troops in Operation ANACONDA, an assault on enemy forces in southeastern Afghanistan.
- **Mar 16 -** Korean military forces established a hospital at Manas, Kyrgyzstan.

- **Mar 17** - Operation ANACONDA concluded; a total of eight American servicemen had been killed and 82 wounded in action.

- **Apr 4** – Six hundred soldiers of the new Afghan National Guard (ANG) graduated after 6 weeks of training by the Coalition.

- **Apr 24** - 295 detainees were housed at Camp X-Ray, less than 24 percent of who were native Afghans.

- **May 2** - Task Force Jacana, British Royal Commandos, initiated Operation SNIPE, a sweep in the Gardez region, which ended May 17.

- **May 8** - Spain provided humanitarian assistance to Afghanistan in the form of 26 tons of pharmaceutical supplies delivered to Kabul.

- **May 15** – The 1st Battalion, Afghan National Army (ANA) commences training under the direction of U.S. Special Forces.

- **Jun 13** - The Loyal Jirga elected Hamid Karzai as the head of the Afghan transitional government.

- **Jun 20** – British Major Gen. John McColl handed over leadership of the ISAF to Turkey's Major Gen. Hilmi Akin Zorlu. Ten days later, on Jun 30, Turkey assumed full operation lead of ISAF.

- **Jul 6** - Haji Abdul Qadir, the new Afghan vice president, was assassinated his first day in office.

- **Aug 6** - The Coalition Joint Civil Military Operation Task Force completed two major road programs in the Bagram area, which enhanced humanitarian supply lines.

- **Aug 18** - Operation MOUNTAIN SWEEP, a Coalition effort to locate key personnel and weaponry in the Gardez region, commenced and lasted until Aug 25.

- **Aug 20** – The Government of Bulgaria donated a substantial amount of arms and ammunition to the Afghan government for training and equipping the Afghan National Army.

- **Sept 17** – A U.S. tactical Psyops detachment and officers of 3rd BANA distributed 750 school bags filled with supplies to the children of Paktia Kot Elementary School.

- **Sept 18** – U.S. soldiers conducted a cordon and search of several compounds. In one of the compounds they found suspected Taliban literature calling for Jihad against Coalition forces.

- **Sept 21** – Twenty-one U.S. medical personnel from Bagram Air Base flew to Kohe Sofi, where they examined and treated about 800 local villagers, of which 400 were children.

- **Oct 3** – More than 360 soldiers of the 3rd Bn. ANA graduated from the Afghan Military Academy, in Kabul.

- **2003**

- **Oct—**1,000 Afghan fighters surrendered weapons for food, money, and clothing in Kunduz.

- **Oct 26—**Afghani Interior Minister Ali Ahmad Jalali replaced several top officials during a visit to Mazar-e-Sharif. The provincial governor, the deputy governor, the major, and the police chief were all replaced following an outbreak of fighting between warlords Attah Mohammad and Abdul Dostum.

- **Nov 11—**A bomb exploded outside of the UN's Kandahar office.

- **Nov 14—**Afghani Foreign Minister, Abdullah Abdullah, criticized Pakistan for not cracking down on militant activity in its territory. Citing the UN Security Council resolution extending the role of the NATO peacekeeping force past Kabul, Abdullah encouraged the coalition to act rapidly.

- **Nov 16—**A UN refugee worker was shot and killed outside of Kabul, the first aid worker killed since the fall of the Taliban. A UN vehicle in the Paktia Province was attacked with a bomb. Afghanistan celebrated the two-year anniversary of the fall of the Taliban.

- **Nov 18—**Zalmay Khalilzad, US ambassador to Afghanistan, harshly criticized Pakistan for not doing more to stop militants from operating in its borderlands and to stop drug traffickers. The UN pulled thirty members of its refugee agency out of southern and eastern Afghanistan following three attacks on its personnel. A weeklong program to offer Afghan fighters with food, money, and clothing in exchange for weapons ended. Japan raised the $41 million for the program, which saw 595 fighters outside Gardez turn in weapons ranging from rockets to tanks.

- **Nov 23—**A bomb exploded outside the Intercontinental Hotel in Kabul that resulted in no casualties. Remnants of the Taliban claimed responsibility.

- **Dec 1—**100 out of 330 delegates arrived for the preliminary session of the *loya jirga*. Sixty US soldiers were deployed to Heart to support reconstruction and security efforts. Ismail Khan, the regional governor/warlord, welcomed their arrival. Lord Robertson, the NATO Secretary General, warned that the organization's credibility and success in Afghanistan required that member states send more troops and equipment to Afghanistan.

- **Dec 2—**Abdul Rashid Dostum and Atta Mohammed, two rival warlords who had been fighting one another outside of Mazar-e-Sharif, surrendered much of their heavy weaponry, including tanks, anti-aircraft batteries, and rocket launchers, to two battalions of the new Afghan army.

- **Dec 3—**19,000 delegates met in eight cities over a period of one week to choose the 500 members of the loya jirga. The elected members of the assembly determine the make-up of the Afghani constitution.

- **Dec 4—**Secretary of Defense, Donald Rumsfeld, met with Abdul Rashid Dostum and Ustad Atta Mohammed, two warlords, in northern Afghanistan. He encouraged them to keep disarming, especially Dostum who was reluctant to surrender heavy weaponry.

- **Dec 16—**A highway linking Kabul and Kandahar opened.

- **Dec 21—**Lt. Gen. David Barno redefined the mission of the five provincial reconstruction teams consisting of 50 to 70 soldiers. Barno announced the creation of seven additional teams and that all teams' primary focus would be to provide security in southern Afghanistan instead of humanitarian relief.

- **2004**

- **Jan 4—**The Loya Jirga approved the Afghan constitution.

- **Jan 8—**Pakistan's military moved into Waziristan region to root out Al-Qaida militants hiding in the borderland mountains.

- **Jan 11—**Gen. Mohammad Zahir Azimi stated that the Afghan National Army had suffered 3,000 desertions.

- **Jan 12**—Pakistan's Prime Minister, Zafarullah Khan Jamali, made an official visit to Afghanistan. He pledged cooperation in the fight against terrorism, on trade issues, and on transportation projects. The prime minister announced that Pakistan would donate school buses and scholarships.

- **Feb—**Central Intelligence Agency Director George Tenet met with Pakistani President Perez Musharraf and other top military figures.

- **Feb 3—**Lt. Gen. David Barno announced a new strategy for fighting the remnants of the Taliban, including a spring offensive.

- **Feb 4—**Afghan President Hamid Karzai sacked Muhammad Arif Sarwari, the head of the National Security Directorate amid charges of human rights abuses and espionage activities on Afghan citizens.

- **Feb 9—**NATO commander Gen. James L. Jones stated that the insurgency in Afghanistan is weakening and that the number of fighters may have fallen below 1,000.

- **Feb 17—**Lt. Gen. Barno announced that the US would create regional development zones, with Kandahar as the first zone. The zones are designed to coordinate the efforts of the US military, the Afghan police and military, and US AID.

- **Mar—**The commando unit that helped capture Saddam Hussein, Task Force 121, arrived in Afghanistan to search for Osama bin Laden and remnants of Al-Qaida and the Taliban.

- **Mar 5—**Afghan and foreign fighters attacked an Afghan National Army base at Sesandeh, in the Paktika Province. US and Afghan military personnel fought off the assailants who were heavily armed.

- **Mar 7—**US military, in coordination with 12,000 Pakistani soldiers, launched Operation Mountain Storm against suspected Al-Qaida hideouts on the border with Pakistan.

- **Mar 10—**Pakistan's military reached an agreement with tribesmen in the Wana region to form a 600-man force to seek out Al-Qaida members and sympathizers in the border regions between Pakistan and Afghanistan.

- **Mar 14—**US forces, engaged in Operation Mountain Storm, killed 12 Taliban fighters and captured three Taliban commanders.

- **Mar 15—**Pakistani agents diffused a bomb located in a van outside of the US Consulate in Karachi, Pakistan. The US commander in charge of forming the Afghan Army stated that they needed far more money.

- **Mar 18—**Al-Qaida guerillas fiercely fought units from the Pakistani military in Waziristan. Pakistan stated that the fighters were protecting a "high value target," possibly Ayman Al-Zawahiri.

- **Mar 21—**Pakistan's military sent a delegation of tribesmen to negotiate the surrender of the Al-Qaida fighters. An all-out offensive was promised if they did not surrender.

- **Mar 21, 22—**Fighting broke out between fighters loyal to the warlord/governor of Herat, Ismail Khan, and to militia commander Zaher Naib Zada. The conflict began after the assassination of Khan's son, Mirwais Sadiq, the Afghan aviation minister. The Afghani Defense Ministry sent troops to quell the fighting.

- **Mar 25—**The Pentagon announced the transfer of approximately 2,000 marines from the Persian Gulf to Afghanistan.

- **Mar 27—**The town of Khost suffered three separate attacks in one day. A suicide bomber blew himself up outside of an Afghan military base, injuring none. Three Afghan soldiers' homes were hit with grenades. No one was hurt. Militants attacked a restaurant with rockets, injuring six civilians. In the Uruzgan Province, fighters attacked an army post killing two soldiers and abducting ten.

- **Mar 28—**The clash between militants and Pakistani troops in South Waziristan ended after militants returned 12 paramilitary fighters and two civilian officials, prompting Pakistan's military to withdraw. President Karzai postponed the national parliamentary and presidential elections until September citing security concerns.

- **Mar 29—**Spain promised to increase its troop level in Afghanistan from 125 to 250 by summer 2004.

- **Mar 31—**A donor conference began in Berlin, Germany. The goal was to raise $9 billion for use in Afghanistan over three years.

[1] While the definitions of conflict and war have somewhat of a consensus status in international law, in practice, the use of the terminology can be somewhat subjective. At the "First Peace Conference," held in 1899 in The Hague by Tsar Nicholas II, delegates formally adopted "Marten's Clause," which admitted the difficulty of defining and using the term war. In 1949, the United Nations Conventions clarified that absent a declaration of war, nations fighting one another are in fact engaged in an "armed conflict." However, as both public officials and the media have characterized the fighting in Afghanistan as a war, this analysis will utilize the terms "war" and "conflict" interchangeably

[2] The historical account of the interaction between the US and the states and non-state actors that rose to prominence following the events of September 11, 2001 that follows draws heavily on the Staff Statements of the National Commission on Terrorist Attacks Upon the United States. A full transcript of the Staff Statements can be found at http://www.9-11commission.gov/. Key references include Staff Statements 5-8, available at http://www.9-11commission.gov/staff_statements.htm

[3] BBC, "Analysis: Who are the Taleban?," http://news.bbc.co.uk/1/hi/world/south_asia/144382.stm, Accessed April 8, 2004.

[4] BBC, "Analysis: Who are the Taleban?," http://news.bbc.co.uk/1/hi/world/south_asia/144382.stm, Accessed April 8, 2004.

[5] BBC, "Analysis: Who are the Taleban?," http://news.bbc.co.uk/1/hi/world/south_asia/144382.stm, Accessed April 8, 2004.

[6] ABCNews, "Afghanistan Timeline," ABCNews.com, http://abcnews.go.com/sections/world/DailyNews/taliban_timeline_6.html, Accessed April 9, 2004.

[7] Maggie Owens, "Lost Treasures: Taliban Begins Destroying Irreplaceable Buddhist Statues," ABCNEWS.com, http://abcnews.go.com/sections/world/DailyNews/afghanistan010302_buddha.html, Accessed April 9, 2004.

[8] ABCNews, "Afghanistan Timeline," ABCNews.com, http://abcnews.go.com/sections/world/DailyNews/taliban_timeline_6.html, Accessed April 9, 2004.

[9] Statistics available at http://www.newyorkmetro.com/news/articles/wtc/1year/numbers.htm

[10] Statistics available at http://www.newyorkmetro.com/news/articles/wtc/1year/numbers.htm

[11] The following is drawn heavily from Bob Woodward. Bush at War. Simon and Schuster: New York, New York, 2003.

[12] Eugene Palka, "Operation Enduring Freedom and the Military Geographic Challenges of Afghanistan."

[13] In many cases, "pilot error" may have been the result of inadequate avionics for mountain flying or having to carry out missions in very marginal flying conditions. An example is the KC-130 crash in June 2002. San Diego Union Tribune, June 20, 2002, p. 1.

[14] See the analysis in The Estimate, Vol. XIV, Number 1, January 11, 2002.

[15] Defense Daily, April 10, 2002, p. 7.

[16] "Year in Review - War Against Terrorism," Defend America, http://www.defendamerica.mil/specials/oct2002/sp101502a.html.

[17] Jane's Defense Weekly, January 2, 2001, pp. 20-27.

[18] "Enduring Freedom Debrief," Code One Magazine, http://www.codeonemagazine.com/archives/2002/articles/jul_02/332nd/.

[19] "Enduring Freedom Debrief," Code One Magazine, http://www.codeonemagazine.com/archives/2002/articles/jul_02/332nd/.

[20] "F-16 Fighting Falcon," Federation of American Scientists, http://www.fas.org/man/dod-101/sys/ac/f-16.htm; "F-15 Eagle," Federation of American Scientists, http://www.fas.org/man/dod-101/sys/ac/f-15.htm.

[21] See William M. Arkin, "Old-Timers Proved Invaluable in Afghanistan Air Campaign," Los Angeles Times, February 10, 2002.

[22] Dr. Rebecca Grant, "The Afghan Air War," Air Force Assoc. web site, Sept. 2002.

[23] "B-52 Stratofortress," Federation of American Scientists, http://www.fas.org/nuke/guide/usa/bomber/b-52.htm.

[24] "Fact Sheet: B-1B Lancer," Dept. of the Air Force, http://www.af.mil/news/factsheets/B_1B_Lancer.html.

[25] Paul Lewis, "Aging Aircraft Prove Their Worth: Operational Success in Afghanistan May Lead to a Significant Boost in Funding," Flight International, Nov. 26, 2002.

[26] Dr. Rebecca Grant, "The Afghan Air War," Air Force Assoc. web site, Sept. 2002.
[27] Hunter Keeter, "Communications, Weapons-Carrying Improvements Key to Bomber Force," Defense Daily, Nov. 4, 2002.
[28] Paul Lewis, "Aging Aircraft Prove Their Worth: Operational Success in Afghanistan May Lead to a Significant Boost in Funding," Flight International, Nov. 26, 2002.
[29] Paul Lewis, "Aging Aircraft Prove Their Worth: Operational Success in Afghanistan May Lead to a Significant Boost in Funding," Flight International, Nov. 26, 2002.
[30] Tech. Sgt. Tim Dougherty, "B-1 is Tailor-Made for Operation Enduring Freedom," Air Force Link web site.
[31] Paul Lewis, "Aging Aircraft Prove Their Worth: Operational Success in Afghanistan May Lead to a Significant Boost in Funding," Flight International, Nov. 26, 2002.
[32] Hunter Keeter, "Communications, Weapons-Carrying Improvements Key to Bomber Force," Defense Daily, Nov. 4, 2002.
[33] Los Angeles Times, December 12, 2001; Jane's Defense Weekly, December 3, 2001, p. 28.
[34] Aviation Week and Space Technology, June 24, 2002, p,. 47.
[35] Aviation Week and Space Technology, June 24, 2002, p,. 47.
[36] "B-1B Crash Cause Remains Unknown," Air Force Link, http://www.af.mil/news/Sep2002/92402412.shtml.
[37] Paul Lewis, "Aging Aircraft Prove Their Worth: Operational Success in Afghanistan May Lead to a Significant Boost in Funding," Flight International, Nov. 26, 2002.
[38] "B-2 Operations," Global Security.org, http://www.globalsecurity.org/wmd/systems/b-2-ops.htm.
[39] "B-2 Operations," Global Security.Org, http://www.globalsecurity.org/wmd/systems/b-2-ops.htm.
[40] "B-2 Operations," Global Security.Org, http://www.globalsecurity.org/wmd/systems/b-2-ops.htm.
[41] "B-2 Operations," Global Security.Org, http://www.globalsecurity.org/wmd/systems/b-2-ops.htm
[42] New York Times, December 11, 2001, and March 20, 2002.
[43] Bryan Bender, Kim Burger, and Andrew Koch, Afghanistan: First Lessons, Jane's Defense Weekly, December 19, 2001, p. 20; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1.
[44] The New York Times, June 25, 2002; Aviation and Space Technology, April 28, 2002, p. 55.
[45] Defense News, January 14, 2002, p. 28, April 29, 2002, p. 6.
[46] Washington Times, December 13, 2001. p. 7.
[47] Department of Defense figures reported in Bloomberg.com, January 22, 2002.
[48] For further details, see Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50. The JDAM had an initial cost of $40,000 and a CEP specification of 13 meters. The cost is not roughly a third of that and CEPs of less than 5 meters have regularly been achieved on test ranges.
[49] Department of Defense figures reported in Bloomberg.com, January 22, 2002.
[50] General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm; Bryan Bender, Kim Burger, and Andrew Koch, Afghanistan: First Lessons, Jane's Defense Weekly, December 19, 2001, p. 20; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1.
[51] The New York Times, June 25, 2002.
[52] For a more detailed assessment of these points and why the air environment in Afghanistan may not be relevant to fighting against countries like Iran, Iraq, and North Korea, see the presentation of General Hal Hornburg, commander of the Air Combat Command, and General Gregory Martin, commander of USAFE, before the Air Force Association Conference in Orlando Florida, as reported in Bloomburg.com, February 20, 2002.
[53] Norfolk Virginian-Pilot, July 12, 2002.
[54] USA Today, April 30, 2002; Jane's Defense Weekly, December 5, 2001, p. 3, Los Angeles Times, December 11, 201; Time.com, April 27, 2002.
[55] Defense Daily, March 25, 2002, p. 48, July 3, 2002, p. 1; Wall Street Journal, May 3, 2002.
[56] Defense Daily, July 3, 2002, p.1; Aviation and Space Technology, April 29, 2002, p. 55.
[57] Jane's Defense Weekly. January 16, 2002, p. 3; Washington Times, April 2, 2002, p. 5.
[58] Defense Daily, July 9, 2002, p. 3.
[59] Air Force News, May 29, 2002.
[60] For a good preliminary analysis of these lessons of war, see Bryan Bender, Kim Burger, and Andrew Koch, "Afghanistan: First Lessons," Jane's Defense Weekly, December 19, 2001, pp. 18-21.

[61] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[62] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.
[63] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[64] ABC News background brief and Defense Daily, April 10, 2002, p. 7.
[65] For a good discussion of the operational strengths and weakness of current systems, see Christopher J. Bowie, "Destroying Mobile Ground Targets in an Anti-Access Environment," Northrop Grumman Analysis Center Paper, Washington, December 2001.
[66] Defense News, January 3, 2002, p. 1.
[67] Defense News, March 25, 2002, p. 8
[68] James G. Roche, "Transforming the Air force, Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 9- 12; Defense News, January 3, 2002, p. 1.
[69] The Los Angeles Times, July 15, 2002.
[70] For more details, see Defense news, April 22, 2002, p. 28, March 25, 2002, p.8
[71] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.
[72] Defense News, September 16-22, 2002, p. 28.
[73] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[74] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[75] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[76] iRobot Corporation, http://www.irobot.com/rd/p08_PackBot.asp.
[77] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[78] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[79] Press Release, Exponent, Inc., http://www.exponent.com/about/news/090502.html.
[80] "Robots Risk Their Lives for U.S. Soldiers in Afghanistan," AP, ChannelOne.com, http://www.channelonenews.com/articles/2002/07/31/ap.robots/.
[81] See Lt. Col. Merrick Krause, "How to Project Power: Asset Integration, Not Platforms, Get Results," Defense News, June 3, 2002, p. 19.
[82] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4; Defense Weekly: Daily Update, July 3, 2002.
[83] Wall Street Journal, April 10, 2002.
[84] Wall Street Journal, April 10, 2002.
[85] Matt Kelley, "Pilotless Aircraft Become a Potent Weapon in War on Terror," The Associated Press, November 5, 2002
[86] Defense News, February 11, 2002, p. 3; USA Today, March 11, 2002, p. 3B.
[87] Boston Globe, February 6, 2002, p. 10; Jane's Defense Weekly, January 2, 2002, p. 6.
[88] The Washington Post, July 13, 2002, p. 11.
[89] The Washington Post, March 26, 2002, A-1.
[90] The Washington Post, March 26, 2002, A-1.
[91] The Washington Post, March 26, 2002, A-1.
[92] Defense News, June 10, 2002, p. 20.
[93] Defense News, May 6, 2002, p. 6..
[94] Noah Shachtman, "Why War is Really Just a Game," Wired, http://www.wired.com/news/politics/0,1283,52766,00.html.
[95] Defense Daily, July 9, 2002, p. 3.

[96] The Washington Post, July 5, 2002, p. 14.
[97] The Washington Post, July 5, 2002, p. 14, Air Force News, May 29, 2002; Aviation Week and Space Technology, March 11, 2002, p. 24.
[98] The Washington Post, July 5, 2002, p. 14, Air Force News, May 29, 2002.
[99] Jane's Defense Weekly, October 17, 2001, p. 6.
[100] The New York Times, June 26, 2002.
[101] Dana Priest, "In War, Mud Huts and Hard Calls," Washington Post, February 20, 2002, pp. A-1 and A-8
[102] Defense News, February 11-17, 2002, p. 8.
[103] Defense News, February 11-17, 2002, p. 8.
[104] See the Ottawa Citizen, June 26, 2002, p. 12.
[105] New York Times, June 19, 2002; Washington Post, June 19, 2002, p. 22.
[106] Associated Press, "Friendly Fire Pilots Forced to Take Amphetamines, Lawyers Say," FOXNews.com, http://www.foxnews.com/story/0,2933,74385,00.html.
[107] Associated Press, "Friendly Fire Pilots Forced to Take Amphetamines, Lawyers Say," FOXNews.com, http://www.foxnews.com/story/0,2933,74385,00.html.
[108] Associated Press, "Friendly Fire Pilots Forced to Take Amphetamines, Lawyers Say," FOXNews.com, http://www.foxnews.com/story/0,2933,74385,00.html.
[109] The New York Times, March 21, 2003.
[110] The New York Times, March 21, 2003.
[111] Jim Garamore, "Operations Continue in Eastern Afghanistan," American Forces Information Service, July 18, 2002, www,defenselink.mil/news/Jul2002/n0718002_200207183.
[112] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.
[113] For an interesting Israel perspective on these issues, see Avi Kober, Reflections on Battlefield Decision and Low Intensity Conflict, Ramat Gan, Bar-Ilan University, BEA Center for Strategic Studies, May 2002.
[114] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16; Aviation Week and Space Technology, April 29, 2002, p. 55.
[115] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.
[116] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.
[117] See Erwin, Sandra I., "Naval aviation: lessons fro war; Enduring Freedom reinforces need for new targeting pods, radar, data links." National Defense, National Defense Industrial Association, June 1, 2002, p. 16.
[118] Aerospace Daily, February 20, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[119] Washington Post, February 16, 2002, p. A-27.
[120] "New High Tech Weapons and Advanced Systems May Debut in a Conflict With Iraq," CDI, http://www.cdi.org/terrorism/new-weapons.cfm.
[121] "American Morning," CNN, Nov. 21,2002.
[122] For discussion of US wartime technology developments see Los Angles Times, March 17, 2002, p. 1; Washington Post, March 26, 2002, p. 16.
[123] New York Times, December 11, 2002, p, 1; Jane's Defense Weekly, March 13, 2002, p. 6..
[124] Washington Post, December 13, 2001, p. 22; Jane's Defense Weekly, May 2, 2001, pp. 24-27.
[125] Jane's Defense Weekly, March 13, 2002, p. 6.
[126] Jane's International Defense Review, April 2002, p. 3.
[127] New York Times, December 3, 2001; Jane's Defense Weekly, May 2, 2001, pp. 24-27.
[128] Inside the Air Force, July 12, 2002, p. 1.
[129] The San Diego Union –Tribune, June 24, 2002.
[130] Washington Post, June 24, 2002, p. 13
[131] Defense News, May 6, 2002, p. 34.

[132] Defense News, May 20, 2002, p. 32.
[133] This list is provided by USCENTCOM. Also see Jane's Defense Weekly, March 13, 2002, p 4 and 21.
[134] The Washington Times, July 11, 2002, p. 15.
[135] The Washington Post, June 21, 2002, p. 19.
[136] Baltimore Sun, July 10, 2002.
[137] See Laura Kind, "A Civilian Toll in Afghan War Likely Lower," Philadelphia Inquirer, February 12, 2002, p. 1. The AP estimate of civilian deaths includes 70 in Kabul, 81in Khandahar, 55 in Jalalabad, 10 in Mazar e-Sharif, 18 in Heart, 25 around Spin Boldak, 55 in Karam, and 167 in the Tora Bora region (155 in Kama, 5 in Agom, and 7 in Pacair). Also see Barry Bearak, "Uncertain Toll in the Fog of War," New York Times, February 10, 2002, P. A-1.
[138] Times Wire Reports, "U.S. Commander Rejects Civilian Casualty Reports," Los Angeles Times February 4, 2004.
[139] Bryan Bender, "Report Says Military Distorts War Deaths," Boston Globe February 18, 2004.
[140] Pamela Constable, "Rights Report Accuses U.S. Troops of Abuses in Afghanistan," Washington Post, March 9, 2004, pg. 16.
[141] For a detailed description of the real world problems encountered on the ground, see Dana Priest, "In War, Mud Huts and Hard Calls," Washington Post, February 20, 2002, pp. A-1 and A-8.
[142] "U.S. Admits Attack Hit Kids," New York Daily News December 19, 2003.
[143] The New York Times, July 21, 2002, p. 1.
[144] The New York Times, July 21, 2002, p. 1.
[145] Washington Post, February 7, 2002, p. a-12; Washington Post, February 20, 2002, pp. A-1 and A-8; New York Times, February 8, 2002, p. A-14, and Philadelphia Inquirer, February 12, 2002, p. 1; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[146] Washington Post, February 22, 2002, p. A- and A-18.
[147] New York Times, February 12, 2002, p. A-7.
[148] The New York Times, July 7, 2002, p. 8.
[149] Time, July 15, 2002, p. 32; The Washington Post, July 2, 2002, A-1; The Associated Press, July 2, 2002; The Washington Post, July 9, 2002, p. 17.
[150] The New York Times, July 7, 2002, p.8.; Time, July 15, 2002, p. 32; The Washington Post, July 9, 2002, p. 17.
[151] The Washington Post, July 9, 2002, p. 17; The New York Times, July 7, 2002; The New York Times, July 4, 2002, p. 6; The Washington Times, July 12, 2002, p.10.
[152] The Guardian, July 2, 2002.
[153] The New York Times, July 7, 2002, p. 8.
[154] "Unclassified Executive Summary Investigation of Civilian Casualties, Oruzgan Province," U.S. Central Command web site, http://www.centcom.mil/News/Reports/Investigation_Oruzgan_Province.htm.
[155] The New York Times (from wire reports), July 2, 2002.
[156] The Associated Press, July 2, 2002.
[157] London Daily Telegraph, July 5, 2002.
[158] The New York Times, July 14, 2002.
[159] See story by Alissa J. Rubin, The Los Angeles Times, July 15, 2002.
[160] The Washington Post, July 9, 2002, p. 17.
[161] The Washington Post, July 9, 2002, p. 17; The Washington Times, July 9, 2002, p. 1.
[162] The New York Times, July 21, 2002, p. 1.
[163] The counts of total weapons used at given periods are approximate. General Franks referred to 18,000-19,000 in his testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[164] See Human Rights Watch and the Project for Defense Alternatives for some of the better estimates. Also see Chip Cummins, "Military Avoids Estimate of Civilian Deaths," Wall Street Journal, December 4, 2002; Barry Bearak, "Uncertain Toll in the Fog of War: Civilian Deaths in Afghanistan, New York Times, February 10, 2002, p.1; Laura King, "Civilian Death Toll in Afghan War Likely Lower," Philadelphia Inquirer, February 12, 2002, p. 1; David Zucchino, Times, June 2, 2002, p. 1; William M. Arkin, "Checking on Civilian Casualties," Dot.Mil, April 9, 2002; and the Estimate, January 11, 2002.

[165] James G. Roche, "Transforming the Air force, Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 9- 12; Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50.
[166] Bill Sweetman, "The Falling Price of Precision, Jane's International Defense Review, April 2002, pp. 46-50.
[167] Aerospace Daily, December 5, 2001.
[168] Chicago Tribune, February 6, 2002.
[169] See Dallas Morning News, May 31, 2002.
[170] The Los Angeles Times, January 21, 2002, p. A-1.
[171] The Los Angeles Times, January 21, 2002, p. A-1; Chicago Tribune, February 6, 2002.
[172] See W. Hays Parks, "Air War and the Law of War," in Air Force Law Review, 32.1, (1990).
[173] For typical reporting on Al Qaida activity see; Washington Post, March 12, 2002, p. 1; Washington Times, April 11, 2002, p. 1; Associated Press, February 1, 2002; Time, June 24, 2002, p. 24; Reuters, December 12, 2002; New York Times, February 26, 2002, p. 1, March 20, 2002; March 23, 2002, p. 1; USA Today, March 26, 2002, p. 10.
[174] Quoted in The Economist, "The Man in the Middle," March 13, 2004, p. 27.
[175] Massoud Ansari and Philip Sherwell, "Hunt for Bin Laden Intensifies After Top Aide is Captured," London Sunday Telegraph, March 7, 2004.
[176] Tracy Connor, "Al Qaida: We Bought Nuke Cases," New York Daily News March 22, 2004.
[177] The Economist, "A World Wide Web of Nuclear Danger, " February 28, 2004, pg. 27.
[178] Defense News, January 14-20, pp. 3, 28; Inside the Pentagon, January 31, 2001, p. 1.
[179] See Kim Burger, and Andrew Koch, "Afghanistan: the Key Lessons," Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[180] Financial Times, January 21, 2002, p. 15.
[181] Jane's Defense Weekly, January 2, 2001, p. 23
[182] Jane's Defense Weekly, January 2, 2001, pp 22-23.
[183] The Los Angeles Times, July 13, 2002.
[184] The Los Angeles Times, July 13, 2002; The Los Angeles Times, July 14, 2002, p. M-1.
[185] The Los Angeles Times, July 13, 2002.
[186] The Los Angeles Times, July 13, 2002; Defense News, July 15, 2002, p.10.
[187] The Los Angeles Times, July 14, 2002, p. M-1.
[188] The Los Angeles Times, July 13, 2002; Defense News, July 15, 2002, p.10.
[189] Defense News, February 11-17, p. 3., pp. 3
[190] Defense News.com, July 9, 2002.
[191] Navy Times, July 22, 2002, p. 8.
[192] Baltimore Sun, July 10, 2002.
[193] For a broader summary of US force transformation activity, see Hans Binnendijk and Richard Kugler, "Adapting Forces to a New Era: Ten Transforming Concepts," Defense Horizons, Number 5, Center for Technology and National Security Policy, National Defense University, November 2001,
[194] Joseph N. Mait and Jon G. Grossman, "Relevance and Risk: The U.S. Army and Future Combat Systems," Defense Horizons, Center for Technology and National Security Policy, National Defense University, May 2002, p. 4.
[195] London Times, January 23, 2002; Los Angels Times, February 10, 2002.
[196] Inside the Air Force, July 5, 2002, p. 1.
[197] Inside the Air Force, July 5, 2002, p. 1.
[198] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[199] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[200] Bloomberg.com, January 22, 2002; Los Angeles Times, January 21, 2002, p. 1.
[201] Los Angeles Times, January 21, 2002, p. 1.
[202] Jane's Defense Weekly, January 2, 2001, pp. 20-27.
[203] Defense News, February 11-17, 2002, p. 28.
[204] Aviation Week and Space Technology, January 21, 2002, p. 27.
[205] Aviation Week and Space Technology, January 21, 2002, p. 27.
[206] Defense News, April 8-14, 2002, p. 4.
[207] Norfolk-Virginian Pilot, July 11, 2002.

[208] For broader update on ISR and digital warfare, see Vernon Loeb and Thomas E. Ricks, "1s and 0s Replacing Bullets in the US Arsenal," Washington Post, February 2,,2002, p. A-1.
[209] USA Today, December 19, 2001, p. 14; Baltimore Sun, January 23, 2002; Washington Times, January 23, 2002, p. 8.
[210] Washington Times, February 21, 2002, p. 4; Inside the Pentagon, February 21, 2002.
[211] Inside the Pentagon, February 12, 2002, p. 1; Washington Times, February 21, 2002, p. 4; Washington Post, February 21, 2002, p. 15; New York Times, February 21, 2002, p. 1..
[212] Defense News, February 18-24, 2002, p. 26.
[213] Army Times, March 25, 2002, p. 15; Inside the Army, March 18, 2002, p. 1.
[214] Washington Post, December 24, 2002, p, A8; New York Times, April 6, 2002.
[215] Defense Daily International, January 18, 2002; Defense Daily, July 9, 2002.
[216] Defense Daily International, January 18, 2002; Defense Daily, July 9, 2002.
[217] Defense Daily, February 14, 2002.
[218] Bloomberg News, July 11, 2002.
[219] For a good summary, see Defense News, April 15, 2002, p. 8, and Jane's Defense Weekly, June 19, 2002, p. 3.
[220] For a broader discussion of these long-standing problems, see Scott C. Truver, "US Navy Programme Review," Jane's Defense Weekly, April 4, 2001, pp. 23-28. Also see Defense News, June 3, 2002, p.6.
[221] Defense Daily, July 9, 2002, p. 3.
[222] Los Angeles Times, February 10, 2002; General Tommy Franks testimony to the Senate Armed Services on February 5, 2002. http://www.centcom.mil/news/transcripts/General%20Franks%20Testimony%205Feb02.htm.
[223] UPI.com, "10 Percent at Army Hospital Had Mental Problems," February 18, 2004.
[224] It is impossible to do more than touch upon these issues in this paper. For more details, see the various reports on the Army's force transformation activities in the Association of the US Army web page, www.ausa.org, and the official US Army reporting in the Army web page at www.army.mil.
[225] Brtain is also developing lighter platforms like the Future Command and Liasion Vehicle and Future Rapid Effects System. Defense News, June 17, 2002, p. 18.
[226]
[227] See Defense News, March 4, 2002, pp. 7 and 13, May 20, 2002, p. 26, and Jane's International Defense Review, April 22002, p. 21.
[228] Defense News, February 18-24, 2002, p. 6,
[229] Defense News, February 11-17, 2002, p. 28.
[230] For an interesting summary of the internal and external debate, see Peter J. Boyer, "A Different War," The New Yorker, July 1, 2002, pp. 54-67.
[231] Defense News, March 2002, p. 7.
[232] Washington Post, February 20, 2002, p. A1, May 19, 2002, p. A16
[233] European Stars and Stripes. June 19, 2002; USA Today, April 29, 2002, p. 8; Newsweek, May 13, 2002; Washington Post, December 11, 2001, p. A1, May 5, 2002, p.A1; Los Angeles Times, February 24, 2002, p. 1, March 27, 2002, p.1, May 5, 2002, p. A1; New York Times, May 6, 2002; Jane's Defense Weekly, October 17, 2002, pp. 22-23; Air Force Times, April 8, 2002, p. 14; Boston Globe, March 31, 2002, p. 1; New York Times, March 31, 2002, p.A13; Washington Times, July 12, 2002, p.1..
[234] Aviation Week & Space Technology, March 18, 2002, pp. 28-29.
[235] Washington Post, February 20, 2002, p. A1; Aviation Week & Space Technology, March 18, 2002, pp. 28-29.
[236] Defense News, February 11, 2002, p. 8.
[237] Defense News, June 17-23, 2002, p. 40
[238] Defense News, June 17-23, 2002, p. 40.
[239] Barry Watts, "Effects and Effectiveness," Gulf War Air Power Survey, Volume II, Washington, GPO, 1993, p. 335; Christopher J. Bowie, "Destroying Mobile Ground Targets in an Anti-Access Environment," Northrop Grumman Analysis Center Paper, Washington, December 2001, p. 3.
[240] Based in part on a summary in Defense News, July 9, 2002. For the complete report from which these lessons were drawn, see: "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.
[241] AUSA web site, Jan. 9, 2003.

[242] AUSA web site, Jan. 8, 2003.
[243] Defense News, July 9, 2002.
[244] Defense Week, September 3, 2002.
[245] AUSA web site, Jan. 9, 2003.
[246] The Washington Post, March 12, 2003.
[247] Rowan Scarborough, "Army's Civil-Affairs Units Stretched Thin," Washington Times, January 15, 2004, pg. 7.
[248] Based in part on a summary in Defense News, July 9, 2002.
[249] US Department of Defense Website, http://www.defenselink.mil/news/Apr2004/040430-D-6570C-004.jpeg, Accessed May 4, 2004.
[250] US Department of Defense, Public Affairs Office, June 27, 2002.
[251] The Washington Post, March 12, 2003.
[252] For a particularly good summary of the fighting, see Richard T, Cooper, "The Untold War," Los Angeles Times, March 24, 2002; Cincinnatus, "Operation Anaconda," Solider of Fortune, on-line, www.sofmag.com ; and Bradley Graham, "Bravery and Breakdowns in a Ridgetop Battle, Washington Post, May 24, 2002, p. A1 and "A Wintry Ordeal at 10,000 Feet," Washington Post, May 25, 2002, p. A1.. Also see Associated Press, March 6, 2002, Washington Post, March 6, 2002, p. 1, March 13, 2002, p. 19, March 14, 2002, p. 1, May 24, 2002, A-1; Asia Pacific Defense Reporter, May 2002, pp.34-36; London Daily Telegraph, March 5, 2002; Los Angeles Times, March 11, 2002.
[253] The Washington Post, March 12, 2003, p.15.
[254] The Washington Post, March 12, 2003, p.15.
[255] The Washington Post, March 12, 2003, p.15.
[256] The Washington Post, March 12, 2003, p.15.
[257] The Washington Post, March 12, 2003, p.15.
[258] The Washington Post, May 24, 2002, A-1; Asia Pacific Defense Reporter, May 2002, pp.34-36. London Times, June 18, 2002.
[259] The Washington Post, March 12, 2003.
[260] The Washington Post, March 12, 2003.
[261] The Boston Globe, March 9, 2002, D-2.
[262] The Washington Post, March 4, 2002, A-1.
[263] The Washington Post, March 12, 2003.
[264] The Boston Globe, March 9, 2002, p. D-2.
[265] The New York Times, March 2, 2003, section 4, p.13.
[266] The New York Times, March 2, 2003, section 4, p.13.
[267] The New York Times, March 2, 2003, section 4, p.13.
[268] The Washington Post, May 24, 2002, p. A-1.
[269] The Washington Post, May 24, 2002, p. A-1.
[270] Los Angeles Times, March 24, 2002, A1.
[271] Los Angeles Times, March 24, 2002, A1.
[272] Dennis Steele, "Operation Anaconda: Taking the Fight to the Enemy in Afghanistan," Army Magazine, April 2002.
[273] Los Angeles Times, March 24, 2002, A1.
[274] Asia Pacific Defense Reporter, May 2002, pp.34-36; Soldier of Fortune, June 2002.
[275] The Washington Times, March 12, 2002, p.3.
[276] The London Telegraph, March 5, 2002.
[277] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[278] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[279] The Boston Globe, March 9, 2002, p. D-2.
[280] Eric Schmitt, "Up to 2,000 Marines to Go to Afghanistan From Gulf," New York Times, March 26, 2004.
[281] Liz Sly, "U.S. to Adjust Tactics in Fight Against Taliban," Chicago Tribune February 4, 2004.
[282] Quoted in Christina Lamb, "Mullah Omar Threatens Afghan Suicide Blitz," London Sunday Times, April 4, 2004.
[283] Rowan Scarborough, "U.S. Search for Bin Laden Intensifies," Washington Times, February 23, 2004, p. 1.

[284] Quoted in Dave Moniz and Steven Komarow, "Shifts from Bin Laden Hunt Evoke Questions," USA Today, March 29, 2004, p. 4.
[285] Quoted in Dave Moniz and Steven Komarow, "Shifts from Bin Laden Hunt Evoke Questions," USA Today, March 29, 2004, p. 4.
[286] Rowan Scarborough, "U.S. Search for Bin Laden Intensifies," Washington Times, February 23, 2004, p. 1.
[287] Rowan Scarborough, "Agencies United to Find Bin Laden," Washington Times, March 15, 2004, p. 1.
[288] Rowan Scarborough, "Agencies United to Find Bin Laden," Washington Times, March 15, 2004, p. 1.
[289] Gregory L. Vistica, "Military Split on How to Use Special Forces," Washington Post, January 5, 2004, p. 1.
[290] Greg Jaffe and David S. Cloud, "Failed U.S. Afghan Strike Spurs Review of Intelligence Process," Wall Street Journal, March 4, 2004.
[291] Quoted in Faye Bowers, "US Needs to Look Beyond Bin Laden Capture," Christian Science Monitor, March 15, 2004.
[292] Quoted in Faye Bowers, "US Needs to Look Beyond Bin Laden Capture," Christian Science Monitor, March 15, 2004.
[293] Pamela Constable, "Battle Ends in Pakistani Tribal Lands; Militants Release 14 Hostages; Criticism of Government Operation Widens," Washington Post, March 28, 2004, A14.
[294] Massoud Ansari and Philip Sherwell, "Hunt for Bin Laden Intensifies After Top Aide is Captured," London Sunday Telegraph, March 7, 2004.
[295] "Taliban Caught in US Sweep," CNN.com, http://cnn.worldnews, Accessed March 15, 2004.
[296] Peter Foster, "Tribes Join Pakistan's Campaign to Root Out Bin Laden," London Daily Telegraph, March 8, 2004.
[297] Vince Crawley, "Rumsfeld Wants Soldiers off Afghanistan Rebuilding Teams, Army Times, March 15, 2004, p. 32.
[298] Vince Crawley, "Rumsfeld Wants Soldiers off Afghanistan Rebuilding Teams, Army Times, March 15, 2004, p. 32.
[299] Carlotta Gall, "More G.I's to Go to Insecure Afghan Areas to Permit Aid Work," New York Times December 22, 2003.
[300] Vince Crawley, "Rumsfeld Wants Soldiers off Afghanistan Rebuilding Teams, Army Times, March 15, 2004, p. 32.
[301] Carlotta Gall, "More G.I's to Go to Insecure Afghan Areas to Permit Aid Work," New York Times December 22, 2003.
[302] Pamela Constable, "Aid Agencies Cut Presence in Southern Afghanistan," Washington Post, November 20, 2003, pg. 28.
[303] Paul Haven, "U.N. Hit 3 Times in Afghanistan," Philadelphia Inquirer, November 18, 2003.
[304] Vince Crawley, "Rumsfeld Wants Soldiers off Afghanistan Rebuilding Teams, Army Times, March 15, 2004, p. 32.
[305] Cam Simpson, "Afghan Fighters Pose 'Serious Threat'," Chicago Tribune, February 25, 2004.
[306] Cam Simpson, "Afghan Fighters Pose 'Serious Threat'," Chicago Tribune, February 25, 2004.
[307] Hamida Ghafour, "Afghan Villages Locked in Grip of Taliban Forces," Los Angeles Times, March 5, 2004.
[308] Scott Baldauf, "US Hunts Bin Laden: Locals Seek Security," Christian Science Monitor, March 15, 2004, p.1.
[309] Scott Baldauf, "US Hunts Bin Laden: Locals Seek Security," Christian Science Monitor, March 15, 2004, p.1.
[310] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[311] The London Times, March 4, 2002; Asia Pacific Defense Reporter, May 2002, pp.34-36.
[312] The London Times, March 4, 2002.
[313] AUSA News, Dec. 2002.
[314] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; The Washington Post, April 28, 2002, p. 16.
[315] Stephen Biddle, "Afghanistan and the Future of Warfare," Foreign Affairs, March-April 2003.
[316] Rebecca Grant, Air Force Magazine, Jan. 2003.
[317] Rebecca Grant, Air Force Magazine, Jan. 2003.
[318] Rebecca Grant, Air Force Magazine, Jan. 2003.

[319] Rebecca Grant, Air Force Magazine, Jan. 2003.
[320] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; The Washington Post, April 28, 2002, p. 16.
[321] The Washington Post, June 3, 2002, p. 13.
[322] Bloomberg News Service, May 21, 2002. Also see Army Times, March 6, 2002.
[323] Army Times, May 20, 2002, p. 9,
[324] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas; Bloomberg News Service, May 21, 2002.
[325] Defense News, June 17, 2002, p. 1.
[326] Defense News, July 15-21, 2002, p. 40.
[327] Army Times, April 22, 2002.
[328] Army Times, April 22, 2002.
[329] Newsday, August 19, 2002.
[330] Time, April 1, 2002.
[331] Defense Week, September 30, 2002.
[332] Defense Week, September 30, 2002.
[333] PR Newswire, September 12, 2002.
[334] Defense Week, Dec. 16 2002.
[335] Defense News, July 15-21, 2002, p. 40.
[336] Defense News, July 15-21, 2002, p. 40.
[337] The Washington Post, March 10, 2002, p. A-26.
[338] The Washington Post, March 12, 2003, p.15.
[339] Defense News, May 13, 2002.
[340] Defense Week, December 17, 2002, p. 2.
[341] For excellent reporting on this issues seem Carig Covault, "US Military Wants Sweeping Satcom Changes," Aviation Week and Space Technology, January 21, 2002, p. 27.
[342] For excellent reporting on this issues seem Carig Covault, "US Military Wants Sweeping Satcom Changes," Aviation Week and Space Technology, January 21, 2002, p. 27.
[343] Wall Street Journal, April 10, 2002.
[344] Washington Post, May 22, 2002, p. 26.
[345] Wahsingtonpost.com, June 3, 2002, P. A-l.
[346] New York Times, February 4, 2002.
[347] Defense News, July 22-28, 2002, p.38; See also "Emerging Lessons, Insights, and Observations: Operation Enduring Freedom" prepared by the Center for Army Lessons Learned, Fort Leavenworth, Kansas.
[348] Defense Week, April 1, 2002, p. 8.
[349] Asia Pacific Defense Reporter, May 2002, pp.34-36.
[350] Defense Week, April 1, 2002, p. 8.
[351] Pamela Constable, "Rights Report Accuses U.S. Troops of Abuses in Afghanistan," Washington Post, March 9, 2004, pg. 16.
[352] Pamela Constable, "Rights Report Accuses U.S. Troops of Abuses in Afghanistan," Washington Post, March 9, 2004, pg. 16.
[353] Pamela Constable, "Rights Report Accuses U.S. Troops of Abuses in Afghanistan," Washington Post, March 9, 2004, pg. 16.
[354] "Rumsfeld: Ex-Guantanamo Captive Has Returned to Terrorism," Wall Street Journal, March 9, 2004.
[355] Greg Miller and Bob Drogin, "CIA Struggles to Spy in Iraq, Afghanistan," Los Angeles Times February 20, 2004. pg. 1.
[356] Greg Miller and Bob Drogin, "CIA Struggles to Spy in Iraq, Afghanistan," Los Angeles Times February 20, 2004. pg. 1.
[357] Greg Miller and Bob Drogin, "CIA Struggles to Spy in Iraq, Afghanistan," Los Angeles Times February 20, 2004. pg. 1.

[358] Rowan Scarborough, "Green Berets Take on Spy Duties," Washington Times February 19, 2004, pg. 1.
[359] Greg Jaffe and David S. Cloud, "Failed U.S. Afghan Strike Spurs Review of Intelligence Process," Wall Street Journal, March 4, 2004.
[360] The New York Times, July 14, 2002, p. A-1.
[361] The New York Times, July 14, 2002, p. A-1.
[362] See New York Times, March 4, 2002, p. 1; Washington Post, February 10, 2002, p. A1, March 4, 2002, p. A1, May 8, 2002, p. A16; Christian Science Monitor, March 4, 2002, p. 1.
[363] Washington Post, December 23, 2001, p. A12; February 10, 2002, p. A1, May 30, 2002, p. A1, June 18, 2002, p. A12; International Herald Tribune, December 11, 2001, p.1, March 11, 2002, p. 3; London Times, March 4, 2002; Christian Science Monitor, March 4, 2002, p. 1.
[364] New York Times, February 4, 2002, March 27, 2002, May 1, 2002, May 3, 2002, May 6, 2002, p. 1, June 3, 2002; London Times, March 4, 2002; Washington Post, December 23, 2001, p. A10, March 20, 2002, p.A1, May 14, 2002, p. A15, May 16, 2002, p. A1, June 27, 2002, p. A1 and A28; Washington Times, May 15, 2002, p. 3, May 29, 2002, p. 4, June 24, 2002, p. 15, June, 27, 2002, p.16, June 28, 2002, p. 1, June 29, 2002; Newsweek, June 10, 2002; USA Today, June 13, 2002, p. 1, June 18, 2002, p., 7; Los Angeles Times, May 1, 2002, May 14, 2002, June 11, 2002, p. 1, June 28, 2002; Chicago Tribune, May 30, 2002, June 23, 2002, June 30, 2002; Christian Science Monitor, March 22, 2002, p.1, June 27, 2002, June 28, 2002, p. 1, July 2, 2002, p. 1.; Insight, July 22, 2002; Time, July 1, 2002, p. 26; London Daily Telegraph, March 21, 2002, June 24, 2002; Wall Street Journal, December 12, 2001; Jane's Defense Weekly, October 17, 2001, p. 21, October 31, 2001, p. 3; John G. Roos, "Turning Up the Heat," Armed Forces Journal, February 2002, pp. 36-42..
[365] Philadelphia Inquirer, June 26, 2002.
[366] Associated Press, "Pakistan Denies U.S. Claim to Right of Hot Pursuit," FOXNews.com, http://www.foxnews.com/story/0,2933,74604,00.html.
[367] The Washington Post, March 4, 2003, p. A15.
[368] The Washington Post, March 4, 2003, p. A15.
[369] The Washington Post, March 5, 2003, p. A01.
[370] Mark Coatney, "Person of the Week: Abu Zubaydah," Time.com, http://www.time.com/time/pow/article/0,8599,249910,00.html, May 24, 2002.
[371] Associated Press, "Pakistan Denies U.S. Claim to Right of Hot Pursuit," FOXNews.com, http://www.foxnews.com/story/0,2933,74604,00.html.
[372] Rowan Scarborough, "Fear of Casualties Hampers Hunt for Taliban," The Washington Times, Dec. 9, 2002.
[373] "Predator Drone Kills Six Al Qaida Suspects," ABCNews.com, http://abcnews.go.com/sections/wnt/DailyNews/yemen021105.html , Nov. 5, 2002
[374] Ellen Nakashima and Alan Sipress, "Tips, Traced Call Led to Fugitive; Al Qaida Suspect Was Tracked Through four Countries," Washington Post, August 17, 2003, A16.
[375] Sunday Telegraph, January 13, 2002, p. 17.
[376] "FBI Director: About 100 Attacks Thwarted," CNN, http://www.cnn.com/2002/US/12/14/mueller.ap/index.html.
[377] For example, see the warning of Secretary of Defense Donald Rumsfeld on June 3, 2002. Washington Post, June 4, 2002, p. p. A-1
[378] Christopher Cooper and Robert Block, "Al Qaida Today is Decentralized, CIA's Tenet Says," Wall Street Journal, March 16, 2004.
[379] The Washington Times, June 21, 2002, p. A-1.
[380] For a short unclassified overview, see "What's become of Al-Qaida," Time, January 21, 2002, pp, 18-22.
[381] Thomas E. Ricks and Vernon Loeb, "Afghan War Faltering, Military Leader Says," Washington Post, Nov. 8, 2002.
[382] USA Today, June 25, 2002, p. 18.
[383] USA Today, June 25, 2002, p. 18; The New York Times, July 3, 2002.
[384] The New York Times, July 3, 2002.
[385] See Anthony H. Cordesman, The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo, Westport, Praeger, 2001.

[386] Office of the Secretary of Defense, Annual Report on the Military Power of the People's Republic of China, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, Washington, Department of Defense, July 2002, pp. 11-14.
[387] The Washington Post, July 4, 2002, p. 16.
[388] The New York Times, July 14, 2002, p. A-1.
[389] The Washington Post, July 4, 2002, p. 16; The New York Times, July 14, 2002, p. A-1; The Boston Globe, July 4, 2002, p. 1.
[390] The New York Times, February 8, 2002, p. A-14
[391] Washington Post, February 7, 2002, p. A-12, February 20, 2002, pp. A-1. A-8, A-9.
[392] The New York Times, July 7, 2002, p. 8.
[393] Douglas Farah and Peter Finn, "Terrorism INC.; Al Qaida Franchises Brand of Violence to Groups Across World," Washington Post, November 21, 2003, A33.
[394] Quoted in Douglas Farah and Peter Finn, "Terrorism INC.; Al Qaida Franchises Brand of Violence to Groups Across World," Washington Post, November 21, 2003, A33.
[395] Quoted in Douglas Farah and Peter Finn, "Terrorism INC.; Al Qaida Franchises Brand of Violence to Groups Across World," Washington Post, November 21, 2003, A33.
[396] Quoted in Douglas Farah and Peter Finn, "Terrorism INC.; Al Qaida Franchises Brand of Violence to Groups Across World," Washington Post, November 21, 2003, A33.
[397] "Mourners Remember Bali Victims," October 12, 2003, Accessed April 26, 2004.
[398] "Turkey Names Suicide Bombers," http://cnnworldnews.com, November 19, 2003, Accessed April 26, 2004.
[399] "Spain Bombs: Moroccan Group Named," http://cnnworldnews.com, March 30, 2004, Accessed April 26, 2004.
[400] "Spain Bombs: Moroccan Group Named," http://cnnworldnews.com, March 30, 2004, Accessed April 26, 2004.
[401] "Jordan Thwarts 'Massive Attack'," http://cnn.worldnews.com, April 14, 2004, Accessed April 26, 2004.
[402] "Jordan says Major al Qaida Plot Disrupted," http://cnn.worldnews.com, April 26, 2004, Accessed April 26, 2004.
[403] "Jordan says Major al Qaida Plot Disrupted," http://cnn.worldnews.com, April 26, 2004, Accessed April 26, 2004.
[404] Glenn Kessler and Alan Sipress, "Western Targets Bombed in Riyadh; Powell, Due in Saudi Capital, Says Attacks Have the 'Earmarks' of Al Qaida," Washington Post, May 13, 2003, A01.
[405] Robin Wright, "Saudi Complex Hit in Car Bombing; Deadly Explosion also Injures Dozens at Compound Housing Foreigners in Capital," Washington Post, November 9, 2003, A01.
[406] "Saudi Bomb: Pro-al Qaida Claim," http://cnn.worldnews.com, April 22, 2004, Accessed April 26, 2004.
[407] "Analysis: Bin Laden Plays Divide and Rule," http://www.cnn.com, April 15, 2004, Accessed April 26, 2004.
[408] "Analysis: Bin Laden Plays Divide and Rule," http://www.cnn.com, April 15, 2004, Accessed April 26, 2004.
[409] Quoted in Michael M. Phillips, "Afghan Fighters Aim to Disrupt," Wall Street Journal, November 19, 2003, pg. 18.
[410] The problems involved inside and outside Afghanistan are the subject of daily reporting. Good early summaries of the problem appeared in "Afghanistan's Interim Government: Strengths and Weaknesses," The Estimate, December 14, 2002. For typical reporting on the problems involved see: New York Times, February 21, 2002, p. 1, June 6, 2002, July 11, 2002, July 23. 2002; The Estimate, June 26, 2002; Washington Post, February 21, 2002, p. 15, July 8, 202, p. 13, July 9, 2002, p. 1; The Economist, June 8, 2002, pp. 22-24; June 22, 2002, p. 39, July 13, 2002, p. 35; Los Angeles Times, February 25, 2002, p. 1; Boston Globe, June 24, 2002, p. 1; ; USA Today, June 28, 2002, p. 17.
[411] Bob Woodward, Bush at War. (Simon and Schuster: New York, New York, 2002), pg. 59.
[412] Peter Foster, "Tribes Join Pakistan's Campaign to Root Out Bin Laden," London Daily Telegraph, March 8, 2004.
[413] David Rohde and Carlotta Gall, "Pakistani Offensive Aims at Driving Out Taliban and Qaida," New York Times, February 23, 2004.
[414] Owais Tohid, "Pakistan Gains in Al Qaida Hunt," Christian Science Monitor, March 16, 2004.
[415] "High-tech Snooping for Bin Laden," cnn.com, Accessed March 5, 2004 http://www.cnn.com/2004/WORLD/asiacf/03/04/binladen.search/index.html
[416] Carlotta Gall, "Pakistan Asks Tribes to Seek Surrender by Qaida Fighters," New York Times March 22, 2004.

[417] "Pakistan Finds 'Escape' Tunnels," cnn.com, Accessed March 22, 2004, http://cnn.worldnews.com
[418] David Lynch, "Pakistan: Zawahiri Hunt Just a 'Guess'," USA Today March 22, 2004, pg. 1.
[419] Massoud Ansari and Philip Sherwell, "Hunt for Bin Laden Intensifies After Top Aide is Captured," London Sunday Telegraph, March 7, 2004.
[420] Quoted in Sarah El Deeb, "Al Qaida Urges Musharraf's Overthrow," Washington Times, March 26, 2004, p.17.
[421] Malcolm Garcia, "Anti-Al Qaida Force, Militants Stalemated," Miami Herald, March 26, 2004.
[422] Zulfiqar Ali, "Missiles Strike City in Pakistan," Los Angeles Times, March 24, 2004.
[423] Pamela Constable, "Battle Ends in Pakistani Tribal Lands; Militants Release 14 Hostages; Criticism of Government Operation Widens," Washington Post, March 28, 2004, A14.
[424] Josh Meyer and John Hendren, "U.S. Troops Gear Up for Bin Laden," Los Angeles Times January 29, 2004.
[425] Pamela Constable, "Anti-Terror Efforts Put Vise on Afghan Region," Washington Post, March 15, 2004, p. A16.
[426] Pamela Constable, "Battle Ends in Pakistani Tribal Lands; Militants Release 14 Hostages; Criticism of Government Operation Widens," Washington Post, March 28, 2004, A14.
[427] Reuters, "Tribes May Get More Time for Qaida Hunt," The Peninsula, April 20, 2004, p. 16.
[428] Hamida Ghafour, "Afghan Villages Locked in Grip of Taliban Forces," Los Angeles Times, March 5, 2004.
[429] Reuters, "Tribes May Get More Time for Qaida Hunt," The Peninsula, April 20, 2004, p. 16.
[430] Peter Foster, "Tribes Join Pakistan's Campaign to Root Out Bin Laden," London Daily Telegraph, March 8, 2004.
[431] Gregory L. Vistica, "Military Split on How to Use Special Forces," Washington Post, January 5, 2004, p. 1.
[432] Quoted in Hamida Ghafour, "Afghan Villages Locked in Grip of Taliban Forces," Los Angeles Times, March 5, 2004.
[433] Pamela Constable, "Battle Ends in Pakistani Tribal Lands; Militants Release 14 Hostages; Criticism of Government Operation Widens," Washington Post, March 28, 2004, A14.
[434] Paul Watson, "Afghan Interpreter May Have Misled U.S. in Fatal Airstrike," Los Angeles Times, November 5, 2003.
[435] Scott Baldauf and Faye Bowers, "Why Catching Bin Laden is Difficult," Christian Science Monitor, March 18, 2004, p. 1.
[436] Pamela Constable, "Anti-Terror Efforts Put Vise on Afghan Region," Washington Post, March 15, 2004, p. A16.
[437] Zulfiqar Ali, "Missiles Strike City in Pakistan," Los Angeles Times, March 24, 2004.
[438] Elliot Blair Smith, "U.S. Helping Create an Army in Afghanistan," USA Today, Nov. 27, 2002.
[439] "Afghans Begin Training Their National Army," US Embassy Islamabad, March 22, 2003.
[440] The New York Times, Jan. 25, 2003.
[441] AUSA News, Feb. 2003.
[442] Los Angeles Times, January 8, 2003.
[443] "New Afghan Army Hit by 3,000 Deserters," London Daily Telegraph, January 12, 2004.
[444] Los Angeles Times, January 8, 2003.
[445] "New Afghan Army Hit by 3,000 Deserters," London Daily Telegraph, January 12, 2004.
[446] "Afghans Begin Training Their National Army," US Embassy Islamabad, March 22, 2003.
[447] "Afghans Begin Training Their National Army," US Embassy Islamabad, March 22, 2003.
[448] The Washington Post, May 2, 2003.
[449] Catherine Davis, "New Afghan Army Develops," BBC News: World Edition, March 15, 2003.
[450] The New York Times, Jan. 25, 2003.
[451] The Washington Post. May 2, 2003.
[452] Los Angeles Times, May 5, 2003.
[453] Los Angeles Times, May 5, 2003.
[454] Todd Pitman, "Afghanistan's New Army Grows By Battalion, but Struggling to Keep Soldiers in the Ranks," The Associated Press, Oct. 3, 2002.
[455] "Afghans Begin Training Their National Army," US Embassy Islamabad, March 22, 2003.
[456] CIA, "Afghanistan," The World Factbook 2002.
[457] "Afghans Begin Training Their National Army," US Embassy Islamabad, March 22, 2003.
[458] The Boston Globe, June 24, 2002, A-1, The Wall Street Journal, June 27, 2002.
[459] "Cash Crisis Hits Afghan Army: Yank," New York Daily News, March 15, 2004.

[460] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27; The Boston Globe, June 24, 2002, A-1.
[461] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27; The Boston Globe, June 24, 2002, A-1, The Wall Street Journal, June 27, 2002.
[462] The Wall Street Journal, June 27, 2002.
[463] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27, The Wall Street Journal, June 27, 2002
[464] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27, The Wall Street Journal, June 27, 2002.
[465] The Wall Street Journal, June 27, 2002.
[466] Jane's Defense Weekly, June 12-19, 2002, pp. 26-27.
[467] Scott Baldauf, "US Hunts Bin Laden: Locals Seek Security," Christian Science Monitor, March 15, 2004, p.1.
[468] Barbara Slavin, "NATO: Afghanistan is 'Priority'," USA Today, December 5, 2003, pg. 10.
[469] Judy Dempsey, "Call to Double Troop Numbers in Afghanistan," London Financial Times, December 1, 2003, pg. 6.
[470] Elaine Sciolino, "Drifting NATO Finds New Purpose with Afghanistan and Iraq," New York Times, February 23, 2004.
[471] Quoted in Elaine Sciolino, "Drifting NATO Finds New Purpose with Afghanistan and Iraq," New York Times, February 23, 2004.
[472] Judy Dempsey, "Nato Ready to Take Wider Role in Afghanistan," London Financial Times, March 11, 2004.
[473] "Spain to Double Afghanistan Troops," www.cnn.worldnews.com, Accessed March 29, 2004.
[474] Katrin Benhold, "Zapatero May Add Troops in Afghanistan," International Herald Tribune, March 24, 2004.
[475] Judy Dempsey, "Nato Ready to Take Wider Role in Afghanistan," London Financial Times, March 11, 2004.
[476] Bradley Graham, "Pentagon Plans a Redirection in Afghanistan," Washington Post, Nov. 20, 2002.
[477] Ahmed Rashid, "Plans for Afghan Enclaves Indicates Shift in U.S. Policies," Wall Street Journal, Dec. 3, 2002.
[478] "Year in Review: War Against Terrorism: Humanitarian and Civil Accomplishments," Defend America, http://www.defendamerica.mil/specials/sep2002/sp092502c.html.
[479] Ahmed Rashid, "Plans for Afghan Enclaves Indicates Shift in U.S. Policies," Wall Street Journal, Dec. 3, 2002.
[480] Mike Eckel, "U.S. Military Expands Civil Affairs," The Washington Times, Dec. 11, 2002.
[481] The Washington Times, July 15, 2002, p. A-1; The Los Angeles Times, July 15, 2002.
[482] The Washington Times, July 15, 2002, p. A-1.
[483] "Warlords Hand Over Weapons to Afghan Army," New York Times on the Web, December 2, 2003.
[484] Sonni Efron, "Perils Menace Afghan Election," Los Angeles Times, December 2, 2003.
[485] http://abcnews.go.com/sections/world/DailyNews/taliban_profiles.html and http://www.globalsecurity.org/military/world/afghanistan/intro.htm.
[486] Amy Waldman, "Official Killed as Strife Grows in Afghanistan," New York Times March 22, 2004.
[487] "Afghan Governor's Forces Reclaim Herat," New York Times on the Web, March 22, 2004.
[488] Rowan Scarborough, "Drug Money Sustains Al Qaida," Washington Times, December 29, 2003, p. 1.
[489] Quoted in Rowan Scarborough, "Drug Money Sustains Al Qaida," Washington Times, December 29, 2003, p. 1.
[490] Jerry Seper, "U.S. Set to Target Afghan Opium," Washington Times January 22, 2004 pg. 3.
[491] John Zarocostas, "Land Grabs Threaten Peace," Washington Times, March 31, 2004, p. 16.
[492] Christina Rocca, Testimony before the Senate Committee on Foreign Relations, March 26, 2003.
[493] Christina Rocca, Testimony before the Senate Committee on Foreign Relations, March 26, 2003.
[494] Christina Rocca, Testimony before the Senate Committee on Foreign Relations, March 26, 2003.
[495] Christina Rocca, Testimony before the Senate Committee on Foreign Relations, March 26, 2003.
[496] Christina Rocca, Testimony before the Senate Committee on Foreign Relations, March 26, 2003.
[497] "Afghanistan – Complex Emergency Situation Report #4 (FY 2003)," USAID, March 13, 2003.
[498] "Afghanistan – Complex Emergency Situation Report #4 (FY 2003)," USAID website, March 13, 2003.
[499] "Afghanistan – Complex Emergency Situation Report #4 (FY 2003)," USAID website, March 13, 2003.
[500] "Afghan Plea for Aid as Talks Open," www.cnn.worldnews.com, Accessed March 31, 2004.
[501] Michael M. Phillips, "Afghans to Seek $4.5 Billion in New Assistance," Wall Street Journal, March 29, 2004, p. 16.
[502] AP, "Afghanistan Not Ready for election, U.N. Official Says," Baltimore Sun, April 7, 2004.
[503] Quoted in Christina Lamb, "Mullah Omar Threatens Afghan Blitz," London Sunday Times, April 4, 2004.

[504] For a very good in-depth discussion of these issues, see John R. Boule II, "Operational Planning and Conflict Termination," Joint Forces Quarterly, Autumn/Winter 2001-2002, pp. 97-102.
[505] The New York Times, May 2, 2003.
[506] The New York Times, May 2, 2003.