The Lessons of Afghanistan:

A First Analysis

This is a rough working draft and comments would be greatly appreciated.

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Introduction

Historians know all too well that it is far easier to rush forward with lessons than it is to validate them. This is even truer of something as chaotic as war as it is of most historical events, even when the war involved is more or less conventional. The Afghan conflict, however, is anything but conventional. It is an asymmetric war fought in the context of a nearly global battle against terrorism. At the same time, the US response has been heavily shaped by both the risk of follow-on terrorist attacks on US territory and by the reality of anthrax attacks from an unknown source that can be related or unrelated and foreign or domestic.

The problem of drawing lessons from the Afghan conflict is further complicated by the fact that it is scarcely over. The Taliban has been driven from power, but as many Taliban have been dispersed as killed or captured. It is far from clear that the Taliban will not resurface in some form, and “nation building” in Afghanistan is already an activity that involves direct fighting between various factions and efforts to use US and British forces, peace keepers, and any other available tool to serve the interests of various clans, tribes, ethnic groups, factions, and warlords.

Al Qaida has been defeated in battle in Afghanistan but it too has had many fighters simply disperse. Only about 20% of its senior officials seem to have been captured or killed and the fate of Usama Bin Laden remains unknown. Equally important, Al Qaida had cells or associated elements in some 68 countries when the war in Afghanistan began. It has suffered major reversals in many of these countries, but it has scarcely been defeated.

Lessons without Information and Hard Data

The Pentagon and Ministry of Defense have provided few statistics and details on the course of the war to date. There are few data on casualties, collateral damage, battle damage assessment, or even on the numbers of forces involved, sorties flown, or weapons used. The US Defense Science Board is just beginning to make a systematic effort to gather the data needed to draw detailed lessons.

There are some data that are useful. As is explained later, US forces relied even more on precision weapons in the Afghan War than the Kosovo. There are some sortie data on US air missions as of December 17, by which time the Taliban and Al Qaida were already defeated as organized military forces:

- The USAF had flown more than 7,100 sorties or roughly 45-46% of all sorties flown. The US Navy had flown roughly the same number and percentage. Other nations had flown roughly 1,420 sorties or 8-10%.
- The USAF flew bomber attack missions plus 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 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 US Navy dropping 2,100 tons or 25%.

• The 7,100 sorties of the USAF included 450 ISR (Intelligence and Strategic Reconnaissance) sorties (6%), 3,500 refueling or tanker sorties (49%), and 3,150 bomber and transport flights (44%).

There are no official data on battle damage assessments or combat effectiveness, and no reliable data on the use of munitions by type or kind of target.

Ironically there are more cost data 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 billion 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.

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 15 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.

As for the broader battle on “global terrorism,” it has scarcely begun. There are at least 20 more movements that have threatened or attacked Americans in the recent past, and the primary area of terrorist attacks against US citizens before September 11th was Latin America. Several major states are developing steadily improved capabilities to wage asymmetric warfare, including Iran and Iraq. Whether or not they deserve to be called members of an “evil axis” is debatable. Whether they are major proliferators is not.

Afghanistan: A Unique War with Unique Intangibles

All of these factors have not stopped experts from rushing ahead to draw dramatic lessons about technology, tactics, and future wars. It is important to understand, however, that this was a unique war fought under unique conditions, and which involved unique political and strategic “intangibles.”
The Unique Conditions of War

The challenge for the US and Britain was greatly increased by distance, a lack of prewar forward bases, major regional political sensitivities, weather, and 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 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 Asian, Pakistanis, and others. The Afghans may be a highly nationalist people, but they sought their government as Al Qaida as “foreign” and oppressive.

- An organized and armed opposition still existed in a country that had extensive combat experience by Afghan standards. 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 AA guns and manportable 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 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 themselves. 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 resupply, the inability to shelter among the people 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 forces, UAVs, JSTARS, and other US assets and the lack of threat to US aircraft meant 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 “merchantile” 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 on to many force elements the moment it suffered major debates or the US could out bid 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 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 factions also tended to turn such caves and camps into the equivalent of target zones or rat traps. 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 attack and bomber sorties uniquely effective. The US was not force 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 generated by three carriers and an average of 6-8 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 communications assets.

• Factional competition and warlordism created a number of problems for the US in terms of false information, competition between factions, and targeting problems. 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 it could trust. The competition between factions and warlords also often made them very aggressive in attempt to split the Taliban in given areas and rush into 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 and the primary combat force seen by Afghans. This avoided making British and US forces seem to be invaders or 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, provoke a broad Afghan backlash, and allow 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. 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.

Anyone who rushes out to draw dramatic lessons about the decisive impact of technology, new tactics, or the revolution in military affairs should take a very long, hard look at this list of unique conditions. It is not that new US and British technology, tactics, and training were unimportant. They certainly allow the US and Britain to win far more quickly and with almost no casualties. At the same time, the Taliban and Al Qaida had many unique limitations and vulnerabilities and it is far from clear that future opponents will have them to anything like the same degree.

It should also be clear that the US and British forces involved could not possibly have been anywhere as successful unless they had been highly professional forces with very high levels of training, readiness, and sustainability. The ground forces and intelligence officers engaged could not have been as successful without the language and area skills to sustain coalition warfare. The air units had an amazing safety record and 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 -- and equal skill from the support effort provided by refueling, ISR, and support aircraft. It is easy to ignore military professionalism and focus on the new technology and “toys” of war. In practice, the same result could probably 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 same is true of many of the strategic and political intangibles affecting the war. There were political and military uncertainties whose impact US and British planners could not predict when the fighting began, and 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, and the Bush
Administration used it successfully without escalating a country too far in the case of Iraq and without allowing the war to become anti-Islamic. Britain, Europe, and NATO did the same. This mixture of a clear cause and Western unity provided intangible political and diplomatic benefits that were not available in Bosnia or Kosovo, although they came at truly tragic human cost.

- The Taliban and Al Qaida were truly unpopular, in most regions to an amazing degree. They could disperse, but not marshal popular support once they did so.

- The Afghan factions 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 proved to be worse organized than was estimated at the start of the conflict, and did not prove to be particularly adaptable or innovative forces. They did not show the flexibility of forces like the Hezbollah.

- The psychological impact of bombing and air power is always hard to predict. Perhaps because of the overall tactical helplessness of the Taliban and Al Qaida, it seems to have had a major tactical impact.

- 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 war into a relatively short one.

- 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 major impact in most areas of operations.

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

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

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

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

- 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 and played a powerful role, particularly in producing exaggerated reports of collateral
damage and Arab volunteers but steadily lost 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 an Islamic war had been dissipated by a series of discoveries about how the Afghan people viewed the Taliban.iv

- 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 popular hostility to 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-on 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 to be a good idea and certainly is not a lesson of the conflict.

A great deal of US, British, and allied political skill and diplomacy went into shaping these successes. So did tight management of the media information campaign, and the political skill of US and British special 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 political and strategic intangibles will be as favorable in future conflicts.

Certainly, the US and Britain will not have such success again 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 professionalism and readiness discussed earlier, these dimensions of war proved vital. Improved technology did not.

**Drawing Lessons from a Partial Victory in an Ongoing Conflict**

For all of our success to date, it is also important to note that the US and Britain have not won a war, they have won a major victory in a single theater. The two key leaders of the opposition -- Sheik Omar of the Taliban and Usama Bin Laden of Al Qaida -- remain unaccounted for. This is not complete victory in a war fought for political symbols, and to destroy the ability of political movements and terrorists organizations, as much as to defeat a military and paramilitary enemy.

**Will Al Qaida Reemerge? What Does the Enemy Learn from Partial Defeat? The Problem of Distributed Warfare**

The Department of Defense has stated that Al Qaida operates in 68 countries, and the Afghan conflict accounts for only one. Al Qaida may be gravely weakened in other countries, but
it is scarcely clear that it has been defeated. It also remains unclear that defeating Al Qaida is victory. 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 as a far more serious threat.

Secretary of Defense Donald

Rumsfeld approved planning guidance after the collapse of the Taliban that the war could easily last to 2008 and beyond. US military planners and counterterrorism experts are also warning that the struggle in Afghanistan teaches enemies as well as US, British, and 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. They argue that a key lesson of Afghanistan to such enemies will be the need for more anonymity, more emphasis on a cover organization and proxies, and on creating a campaign plan of sequential or multiple attacks from isolated cells and elements so that no victory in any one area can halt the overall campaign.

What remains to be seen is whether this is a potential lesson for future wars or a lesson for this one. Large elements of Al Qaida were not in Afghanistan and large numbers of Al Qaida fighters and leaders seem to have escaped. It is at least possible that Al Qaida will reorganize and go on with its attacks in the future. Alternatively, elements of Al Qaida may go underground, reconstitute themselves and emerge with new names and possibly new leaders, changes in goals and ideology, and changes in method of attack. It has become a cliché to say that death and defeat cannot deter a suicide bomber. It may be equally true that any given defeat of a terrorist or asymmetric opponent simply forces the opponent to adapt.

The Problem of States, Proxies, and Trojan Horse Attacks

There are other disturbing aspects of the partial victory to date 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 conflict, it also remains impossible to prove that it did not. The same was true earlier of Syria’s role in the Marine Corps Barracks bombing in Beirut and Iran’s role in the bombings in Al Khobar. Nothing about Afghanistan indicates that the US has found a solution to state use of terrorists as proxies in asymmetric warfare.

This, in turn, raises the possibility that terrorist movements 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 or Iran had done the same thing. False proxies 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”

Given this background, it is far from clear that the US and British experience in Afghanistan provides lessons that can easily be applied to other states, and particularly to Yemen, Somalia, and the Sudan. If 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, gain popular sympathy, and drag them into war.

At the same time, various other factions in both Afghanistan and Somalia have already attempted to label their opposition as terrorist or supporting Al Qaida, and 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.

Repeating the US and British victory in Afghanistan is one thing, repeating the Aideed hunt 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. These risks should scarcely paralyze action against real enemies, particularly when good targeting intelligence is available, but Afghanistan is scarcely a universal paradigm as to the ease with which such operations can be conducted.

The Limitations of the Afghan conflict and Lessons for “Iraq”

More broadly, all of these factors are an equal warning about going from an extremely weak opponent like the Taliban to a much stronger opponent like Saddam Hussein and Iraq. There is no doubt that the Iraqi regime has its vulnerabilities. At the same time, it is a far better organized, stronger, and in some ways more popular tyranny. It is also a power with 2,200 tanks, nearly 400 aircraft, some weapons of mass destruction, and heavy forces capable of serious war fighting. If one consider the unique conditions of the Afghan conflict, and the luck 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.

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

The use of civilian cover may be an equally important lesson. 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 elements and functions; 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 lines of responsibility for terrorist and military acts, and 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.

**CBRN Weapons and Attacks**

A second lesson is that attacks with CBRN weapons remain a major threat. 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.

More generally, 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 see that the ability to launch on warning or under attack against US allies and friends, or targets in the US homeland, will either deter the US or force it to limit its range of attacks and goals in war.

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 like biological weapons. This not only raises the specter that one lesson of Afghanistan is that future opponents should use smallpox, or its equivalent, it raises the specter of how the US would deal with anonymous attacks on its economy with the equivalent of the hoof and mouth outbreak in Britain or the swine fever outbreak in Taiwan.

**Nation Building, Grand Strategy, and the Aftermath to Military Victory**

A final caveat about drawing lessons from partial victory is 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 serious clashes between warlords, neighboring powers are starting again to play the “Afghan 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.

**Power Projection and Force Transformation**

The Afghan War has again demonstrated the need to be able to rapidly project land and air power at very long distance. It has demonstrated the value of strategic airlift, long-range strike capability, and the ability to operate with limited forward basing. At the same time, it has confirmed the value of light forces like special forces in counterterrorism and some forms of asymmetric warfare and that planning for major regional contingencies and wars where the US must fight against heavy armor and heavily defend airspace are only one possible case in a changing spectrum of conflicts.

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 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 Changing Nature of Joint Warfare and 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 to greatly improved intelligence and targeting systems, can provide much of the heavy firepower in some contingencies 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 were precision guided. This is 56% of all weapons dropped and compares with 35% of the 24,000 weapons dropped during the Kosovo campaign in 1999.\[vii\]

It is dangerous to over-generalize since much depended in both wars on near air supremacy and the ability to engage enemy ground forces in ways where they could make only limited or no use of their armor or artillery against US and allied forces – aside from local allies and proxies. Nevertheless, the nature of the air-land battle does seem to be changing.

It is also worth noting that if the opponent had been more serious, land forces would probably have done better by adding more attack helicopters and gunships to the battle than by having lighter and more mobile artillery and armor. The same might well have been true about adding more highly trained special forces elements, 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 and lighter and more projectable mechanized ground forces.
The Value of Coalition Warfare and Mission-Oriented Interoperability

Recent wars have also 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 an lesson that emerged in a different way from the role the KLA and other Kosovar forces played in Kosvo.

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 but highly trained numbers of advisors and forward air controllers and targeteers 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 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.

The Value of Speed, Readiness, and Range in Power Projection

Sometimes old lessons are just as valuable as new ones. Afghanistan again demonstrated the immense value of strategic airlift and refueling capability, of having highly flexible combat-ready forces than can be quickly deployed, and the ability to use sea power as a substitute for land bases. At the same time, it demonstrated the value of sheer strike range in air power and missiles, and the value this gives to forward presence even when it is not near the immediate area of operations.

These are lessons that tend to be understated in the attention paid to new weapons and intelligence systems, but they are certainly at least as important. Strategic mobility, sustainability, and range of action were far more important keys to US success than the changes in technology between Kosovo and Afghanistan and probably the changes in technology between the Gulf War and Afghanistan. For example, the incredible record of US and British air units in multiple refuelings of thousands of missions, the readiness and safety of the carrier-based aircraft and bombers engaged, and the readiness and safety of the mobility aspects of special forces, ranger, and marine operations did at least as much to determine the outcome as any advances in intelligence systems or GPS guided weapons.
“Closing the Sensor to Shooter Loop” in Near Real Time: Improved Intelligence, Targeting, Precision Strike, Assessment and Restrike Capabilities

That said, no one can dismiss the major impact that new technologies did have, particularly because they were employed with new tactics and as part of new systems. Putting technology and tactics in a broader perspective, in no way means that technological advances can be dismissed or do not provide important lessons for both the Afghan and future conflicts.

The new abilities of US forces to draw on greatly enhanced real-time satellite and UAV data on the movements of enemy and friendly forces, to target enemy forces with high precision in real time even as they were engaged by Afghan ground forces, to communicate this targeting data to US bombers and strike fighters, to use the 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 restrike almost immediately did involve a wide range of advance 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.

It is also clear that the level of US success in Afghan conflict scarcely sets the standard for the level of progress that can be achieved in “closing the loop” in the future. The US only possessed limited numbers of many of the key UAVs involved and that many of the “24/7” improvements it plans to make in imagery satellites and electronic intelligence satellites were not yet deployed. 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; avionics and air munitions were not fully optimized to use such data; and many of the on-the-ground data links, targeting systems, and communications systems provided to special forces and rear area intelligence/targeting analysts can still be greatly improved. Furthermore, they all can be improved in ways that simultaneously increase the tactical impact of given strikes, increase their lethality, and reduced both the risk of friendly fire and collateral damage.

Advances in Technology and the “Force Transformation PDM”

This background both explains and justifies the kind of force transformation effort going on in the US Program Decision Memorandum 4, the so-called “Transformation PDM,” which is part of the FY 2003 budget submission. According to press reports, this PDM calls for:

- 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. Procure more RQ-1 Predators with the ability to fire AGM-114 Hellfire missiles. Examine the option of arming them with smaller 250-500 pound versions of the JDAM.
- Modifications and improvements, including security and survivability, to the Global Positioning Satellite system.
• Procurement of much larger numbers of RQ-1 Predator, RQ-4A Global Hawk and other Unmanned Aerial Vehicle intelligence and targeting systems. This could include developments like converting retired manned aircraft to UAVs, or older target drones like the BQM-145, BQM-34S and MQM-34D.x

• 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.)xi

• 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 improve AC-130 special operations combat aircraft and other Special Forces 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 datalink systems between the AC-130 and Predator/Global Hawks that were rushed into deployment during the war.xii

• Procurement and improvement of portable and theater-deployable intelligence and targeting systems and rear echelon and national capabilities.

• Improvements in communications, secure data links, displays, weapons dispensers, and precision weapons to make real time targeting and restrike capabilities more effective.

• Acceleration of the Airborne Laser theater missile defense system.

• $63 million for upgrading of NORAD computers and radars.

• Acceleration of hard target and underground facility penetration weapons. These would replace or enhance the GBU-28 5,000 pound “bunker buster” bombs and AGM-130s used to attach 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 20 meters or less underground.

The US is examining ways to add hard target kill capabilities to its cruise missiles and there are unconfirmed reports that one such missile, the AGM-86D, was used during the fighting. Other options include a hard target defeat thermobaric weapon, the FMU-157 hard target smart fuse, and BLU-116B advanced unitary penetrator warhead.xiii
• 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.

Other Advances in Tactics and Technology

While not directly related to the PDM, the US also seems to be conducting a number of relevant and Afghan-war related efforts in other areas:xiv

• 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.

• Improve relevant central planning and data transfer facilities like the American Joint Analysis Center at RAF Molesworth in Cambridgeshire, England.xv

• Accelerate the development of systems to detect and characterize biological and chemical weapons and attacks.

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

• 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 restrike during the same mission.

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

• Improve the J-8 JSTARS targeting software. xvii

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

• Increase dissemination of electronic and 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 4,6000 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.xviii
• 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.xix

• 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.xx

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

• 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 greater communications densities, integrate information systems, and standardize on one set of terminals and downlink communication systems with different echelons of access and security.xxi 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.xxx

Given the fact that many of the relevant concepts and capabilities were first proposed during Vietnam, it 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 restrike 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.xxx
It must be stressed, however, that no meaningful numbers yet exist that allow any such benefits to be quantified. Indeed, they may never be available in a reliable form. Historical experience is a sharp warning that estimates of effectiveness, numbers of target kills, and all other aspects of battle damage assessment in the Afghan War will be sharply exaggerated. Neither the US nor Britain has more than the most marginal historical credibility in providing precise battle damage assessment.

In the case of the Afghan war, these problems will be greatly complicated by the fact that many buildings and infantry complexes had to be hit where it was never clear exactly what functions were performed and what numbers of the enemy were involved, that at least some weapons were hit that were non-operational or had already been killed by other means, and that a number of strikes were conducted to produce psychological impact on the Taliban and Al Qaida, rather than damage per se. In many cases, it was impossible to both accurately characterize the target and then assess the level of damage done beyond obvious physical damage to a facility or weapon. This will make it difficult, if not impossible, to fully assess the impact of “closing the loop” in near real time intelligence, targeting, precision strike, assessment and restrike operations.

There are also potential countermeasures to such advances. 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 make 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 under attack.

At the same time, there are also limits to the adaptiveness of enemy forces 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 it is clear that they will be used.

**Other Lessons and Issues**

There are several other areas where lessons, or at least important issues, seem to be emerging.

**The Media and Psyops Battle.**

The Office of the Secretary of Defense feels that it did 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 Department will act upon over time.

**US Marine Corps, the Osprey and Non-Littoral Warfare**

The US Marine Corps faces a potential crisis over the reliability and cost of the Osprey and the need to modernize many aspects of its transport helicopter, combat aviation, land systems, and amphibious systems. 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 Forces capabilities with language, area, and advisory expertise. President Bush’s higher FY2003 defense budget request may solve some of these problems, but Afghanistan still indicates that the Corps needs to reexamine its force transformation plans.

**Carrier Operations and Naval Strike Power**

Successful as USN carrier operations were, the fighting in Afghanistan dramatized the need for long range carrier strike attack aircraft that can 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. This does not mean radical changes in the role of the carrier per se, but it does mean rethinking these aspects of USM 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.

At the same time, the Afghan War again raises questions about the cost of the cruise missile, and the need for arsenal ships. 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.

**US Army and Future Combat System**

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 per se really provides this lesson or that even an increase level of defense spending will allow the US Army to accomplish such a force transformation on a timely basis.

**Special 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, may not be lessons are 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 operations can be very effective.

There seems to be a good case for examining the expansion of special and ranger forces, modernizing their equipment, and tailoring attack helicopter and airmobile forces for counterterrorism and asymmetric warfare missions.

As part of this examination, 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.

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 way that put some one clearly in charge. The last thing on earth Special Forces need is either an overcomplicated chain of command or one that is over-politicized.

**A Global Command**

There is a need to consider whether some form of global command is needed to coordinate the new battle against terrorism and asymmetric warfare, and 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 raised this issue and it is one that clearly need close attention.

**Counterproliferation**

Finally, 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 counterproliferation capabilities as well as defense. 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.
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 heritage 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.

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ii Department of Defense figures reported in Bloomberg.com, January 22, 2002.

iii Department of Defense figures reported in Bloomberg.com, January 22, 2002.


viii 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.


xii Jane’s Defense Weekly, January 2, 2001, p. 23


xv London Times, January 23, 2002


xxi Aviation Week and Space Technology, January 21, 2002, p. 27.

xxii Aviation Week and Space Technology, January 21, 2002, p. 27.