USAWC STRATEGY RESEARCH PROJECT

AL QAEDA’S CENTER OF GRAVITY

by

COLONEL JAMES A. BLISS
United States Army

Professor James B. Bartholomees Jr. Ph.D.
Project Advisor

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013
Al Qaeda’s Center of Gravity

James Bliss

U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050

Approved for public release; distribution unlimited

See attached file.
This paper postulates that Al Qaeda’s center of gravity is Osama Bin Laden and his brand of Islamist extremism. Looking at Al Qaeda as a system, the following characteristics emerge as COG candidates at the strategic level: its fighting force, financial capacity, external support, leadership, and extremist Muslim ideology. Each of these candidates is analyzed to include discussion of capabilities, requirements, and vulnerabilities. Clausewitz indicated that a center of gravity in a popular uprising is the “personalities of the leaders and public opinion.” Bin Laden fits the Clausewitzian definition of a personality leading a popular uprising. Only today, this uprising is on a global scale with the objective of overthrowing the world order. Bin Laden rallies Muslim extremists. His charisma, vision, wealth, and leadership abilities are the reasons Al Qaeda is an effective terrorist organization striking fear across the globe while winning admiration among many in the Muslim world.
TABLE OF CONTENTS

ABSTRACT ................................................................................................................................................III
AL QAEDA’S CENTER OF GRAVITY ............................................................1
    BACKGROUND .................................................................................................1
AL QAEDA’S CENTER OF GRAVITY CANDIDATES ..........................2
AL QAEDA’S FIGHTING FORCE .................................................................2
AL QAEDA’S FINANCIAL CAPACITY .........................................................4
EXTERNAL SUPPORT ....................................................................................5
AL QAEDA’S LEADERSHIP AND EXTREMIST MUSLIM IDEOLOGY ..........7
CONCLUSIONS .............................................................................................9
ENDNOTES ....................................................................................................11
BIBLIOGRAPHY ............................................................................................15
AL QAEDA’S CENTER OF GRAVITY

“When the strike of a hawk breaks the body of its prey, it is because of timing.”¹

―Sun Tzu

This statement by Sun Tzu many centuries ago epitomizes how we must think about strategy in our war today against Al Qaeda. It will take the patience and skill of a hawk to strike at the right time. Our most important prey in this war is Al Qaeda’s leader, Osama bin Laden. To support this assertion, in this paper I will analyze center of gravity candidates leading to the selection of Al Qaeda’s leadership coupled with the Islamist support it receives as the enemy center of gravity.

BACKGROUND

Al Qaeda was established in the early 1990s by Osama Bin Laden, the son of a wealthy Saudi Arabian family. Al Qaeda, which translates from Arabic as “the Base,” is a “multi-national group which funds and orchestrates the activities of Islamic militants worldwide” by maintaining a “loose connection between Muslim extremists in diverse countries.”² Al Qaeda traces its roots to the guerrilla war against the Soviet occupation of Afghanistan during the 1980s when Bin Laden organized and supported Muslim fighters in this struggle. Later during the first Persian Gulf War, Bin Laden grew angry over increased American presence in Saudi Arabia, which he considered an unacceptable encroachment on holy Islamic sites. Because of his radical views, Bin Laden came under the scrutiny of Saudi Arabian officials and left his homeland where he removed to the Sudan and later back to Afghanistan. He continued, with the assistance of a competent team of lieutenants, to set up training facilities and recruit, train, and organize disenchanted Muslims into terrorist units to carry on a holy war of Jihad against the West. Linked to attacks and bombings throughout the world during the 1990s, it was not until the devastation of September 11, 2001, that the American people realized the full fury and potential of Al Qaeda’s extremist objectives.³

Although degraded since 9/11 by U.S. and allied attacks in Afghanistan that sent its leaders into hiding, Al Qaeda continues to seek the strategic goal of establishing “the rule of the Caliphs with the entire world practicing fundamentalist Islam.”⁴ Al Qaeda supports a network of Islamist groups throughout the world to overthrow “infidel” regimes and to rid Muslim countries of Western influence. Bin Laden issued a fatwa in 1998, stating that “it was the duty of all Muslims to kill citizens of the United States, both civilian and military, as well as their allies everywhere.”⁵
Al Qaeda operates in a decentralized manner with terrorist cells or clusters of cells operating globally to strike targets in an attempt to disrupt and devastate society. Estimates vary as to Al Qaeda’s strength, with ranges up to “70,000 members in more than 60 countries around the world.” Rohan Gunaratna, an authority on terrorism, states:

Since the contemporary wave of terrorism began in the Middle East in 1968, no groups resembling Al Qaeda previously emerged. Al Qaeda has moved terrorism beyond the status of a technique of protest and resistance and turned it into a global instrument with which to compete with and challenge Western influence in the Muslim world. Al Qaeda is a worldwide movement capable of mobilising a new and hitherto unimagined global conflict.

AL QAEDA’S CENTER OF GRAVITY CANDIDATES

Clausewitz said this about determining the start point on how to defeat the enemy:

One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. This is the point against which all our energies should be directed.

A modern military author, Antulio Echevarria, indicates one must look at the “enemy’s system as a whole before deciding whether a center of gravity exists” and cautions that the application of a center of gravity “must be judicious.” Given that Al Qaeda is a decentralized terrorist organization, this makes finding a center of gravity very challenging. Nonetheless, looking at Al Qaeda as a “system,” we find these characteristics of Al Qaeda emerge as COG candidates: its fighting force, financial capacity, external support, leadership, and extremist Muslim ideology. What follows is an analysis of each of these candidates to include discussion of capabilities, requirements, and vulnerabilities.

AL QAEDA’S FIGHTING FORCE

Clausewitz said “…no matter what the central feature of the enemy’s power may be—the point on which your efforts must converge—the defeat and destruction of his fighting force remains the best way to begin, and in every case will be a very significant feature of the campaign.” Al Qaeda’s fighting force can be divided into two major components: the 055 Brigade that operates in Afghanistan and “an extensive network of cells and agents outside of Afghanistan.”

The 055 Brigade, a guerrilla organization, is made up of veterans of the war against the Soviets, many of whom remained in Afghanistan following that conflict, and a second generation of younger, better educated recruits “shunned” by their native countries, yet very loyal and
dedicated to Bin Laden, “viewing him as both savior and leader.” The 055 Brigade fought with the Taliban against U.S. and Northern Alliance forces in 2002 and suffered significant losses. Bin Laden ordered what remained of this force to retreat to the mountainous region along the Afghanistan-Pakistan border to wage a “protracted campaign” and to “fight another day.” Although the remnants of this 055 Brigade continue to wage guerrilla and terrorist operations in Afghanistan and Pakistan, I will eliminate it as a COG candidate for this paper because it is an operational level entity. The 055 Brigade, as an organization, does not possess a capability to operate outside of the region. Individual members of the brigade may join terrorist cells if selected to do so.

The more threatening component of Al Qaeda’s fighting force is its network of terrorist cells and agents deployed around the world. They give Al Qaeda strategic reach and the critical capability of striking the United States. The most ominous critical capability is Al Qaeda’s desire to gain a capacity to employ a weapon of mass destruction and deliver a blow against a major U.S. metropolitan area potentially knocking out our government or centers of economic power and killing millions of people.

Terrorist cells engage “in missions independent of the other, and the members and activities of the other cells are kept secret.” Cell members are dedicated to the Islamist ideology and many are willing to engage in suicide missions to attain martyrdom. This limits the effectiveness of deterrence strategies on our part. Because terrorists typically are able to blend into society, sometimes for years living what would appear to be normal lives waiting to carry out attacks, they are especially difficult to identify.

Critical requirements for terrorists cells include the ability to recruit dedicated individuals who are educated and able to function in western society and willing to conduct suicide missions. These cells must be able to receive funds to operate, to pay living expenses, and to procure the necessary weapons, equipment and material to carry out attacks. They must be able to gain entry into the country targeted for attack, and once in they must be able to avoid detection efforts. Critical vulnerabilities include overconfidence, defection of members, the requirement to travel, and the need for funds and resources enabling detection by intelligence and law enforcement officials.

The most significant characteristic of terrorist cells that eliminate it as a “fighting force” COG at the strategic level is the ability of these units to operate in a decentralized and disconnected manner requiring little or no consistent command and control from Al Qaeda’s leadership. These cells operate globally “in vast distributed networks without necessarily being linked to one central authority, or to one another. Clausewitz’s center of gravity concept
depends on the condition that the enemy is connected enough to act as a single entity. By implication, when this is not the case, the concept did not apply.\textsuperscript{20}

Therefore, Al Qaeda's fighting force of terrorist cells is eliminated as a strategic center of gravity. Terrorist cells may serve as operational COGs in individual countries, but destroying cells in one country may not cause those in another country to collapse.\textsuperscript{21} Given the diffused nature of this force of cells that operate independently, the random elimination of single cells will not destroy the Al Qaeda organization as a whole, although, of course, should all the cells be eliminated nearly simultaneously, Al Qaeda would effectively cease to exist.

**AL QAEDA'S FINANCIAL CAPACITY**

Clausewitz is silent in discussing economic power as a potential center of gravity in his book \textit{On War}. But, Michael Howard adds it as a characteristic to consider by emphasizing that we need to know the "enemy's economic capacity to carry on the war at all."\textsuperscript{22} So what are Al Qaeda's economic capabilities? Al Qaeda supports its network of terrorist cells by maintaining a complex financial system. Its annual budget is estimated at a modest $36 million. The bulk of Al Qaeda's funds originate from Islamic charities, Al Qaeda controlled companies, counterfeit currency activities, and credit card fraud. Bin Laden is at the head of this financial network. His shrewd management of funds has enabled the Al Qaeda organization to operate on a relatively low budget.\textsuperscript{23} To again quote author Rohan Gunaratna:

Al Qaeda is established in most countries with indigenous or migrant Muslim communities; its infiltration is evident wherever Muslims live and work. It can never operate in isolation, as mounting a terrorist operation requires financial and technical-logistical support that has to be in place often years in advance. In the Middle East, especially the Gulf, Al Qaeda has public, though hidden, support and also receives practical help from Islamic philanthropists and foundations, notably from the UAE and Saudi Arabia.\textsuperscript{24}

Gunaratna notes that Western intelligence services have "never before encountered a global terrorist financial network as sophisticated as Al Qaeda" by stating:

The resilience of Al Qaeda's financial infrastructure is primarily due to the compartmentalized structure it has adhered to since its inception. It assigns a high priority to financial training and management as well as the sustained generation and investment of funds. Al Qaeda's finance and business committee – comprising of professional bankers, accountants, and financiers – manages the groups across four continents. To move funds clandestinely from source to recipient, Al Qaeda's financial network disguises the true identities of both parties. For this purpose too, Al Qaeda has established several legitimate institutions including state and privately owned charities, banks, and companies...\textsuperscript{25}
The critical requirements for a terrorist financial system to function involve the use of a "variety of alternative financing mechanisms to earn, move, and store their assets...[emphasis added]." Terrorists earn money by engaging in profitable crimes such as selling counterfeit goods and elicit drugs. They move money through "charities, informal banking systems, bulk cash, and commodities" such as precious stones and metals. And, to store assets, terrorists may invest in such commodities because their value will hold over time.

It is difficult to provide a comprehensive list of critical vulnerabilities other than to state that financial transactions through formal systems (like credit cards, cash transfers, etc.) are subject to monitoring, audit, and internal control by U.S. government agencies as well as the financial institutions themselves. Additionally, assets known to belong to Al Qaeda or organizations that support or sympathize with Al Qaeda can be frozen if on deposit with U.S. or allied financial institutions. But, as GAO points out, "the U.S. government and others face challenges in understanding the nature and extent of terrorists' use of alternative financing mechanisms and in monitoring these and emerging mechanisms."

Bottom line—there are too many sources of money to find and isolate. Money is very easy to generate. "Following the money" may provide valuable intelligence in locating and neutralizing terrorists cells operating in the field or allow the United States to exert pressure on entities supporting Al Qaeda. The financial capacity of Al Qaeda is not its source of power. It is a means (or critical requirement) to carry out operations. But this can be done at relatively low financial cost. What is disconcerting is that even if significant funding sources for Al Qaeda are severed, the cost of a terrorist operation is not that large. GAO notes that the "estimated cost of the September 11 attack was between $300,000 and $500,000."

EXTERNAL SUPPORT

Clausewitz said that another feature to consider as important for the defeat of the enemy is the "delivery of an effective blow against his principal ally if that ally is more powerful than he."

Allies of Al Qaeda can be broadly categorized as countries that allow Al Qaeda to operate or provide safe haven such as Pakistan, Afghanistan, Iran, Syria, and others to varying degrees. Another type of ally can be entities that provide assistance to Al Qaeda such as other terrorist groups like Hamas and Hezbollah, as well as the governments of Iran, Syria, and North Korea.

Al Qaeda does not appear have a "state sponsor" per se as in a Cold War model where a belligerent might actively support a terrorist group as a tool to further state objectives. Al Qaeda is its own "supranational" entity with its own strategic and political agendas. If Al Qaeda
did have a clearly identifiable state sponsor or government closely associated with and in support of it, then that state or government could be considered a center of gravity and subject to attack by the United States. An example was the Taliban prior to U.S. and Northern Alliance forces defeating Al Qaeda and destroying its infrastructure in Afghanistan in 2002. Defeating Al Qaeda forces and facilities in Afghanistan was an operational center of gravity for that phase of the campaign. If Al Qaeda manages to set up new training camps in other third world countries, then those camps in all probably will be targeted by U.S. strikes in a continuing effort to degrade Al Qaeda capabilities.

Iran supports the terrorist group Hezbollah and Syria supports both Hezbollah and Hamas. Al Qaeda has formed a “strategic partnership” with Hezbollah and receives technical assistance, training, and intelligence from this group. Israeli intelligence believes that Al Qaeda has infiltrated into the Occupied Territories with the support of Hamas.\textsuperscript{33} But, do we really want to strike at Hezbollah and Hamas? Neither of these groups is targeting Americans.\textsuperscript{34} Furthermore, if these groups marshaled their efforts against the United States, then a so-called alliance or alignment with Al Qaeda would further expand its terrorist network and capabilities. Hezbollah and Hamas are focused on fighting Israel with the goal of a Palestinian state. It is probably not in their interests to alienate the U.S. more than they already have. Furthermore, a U.S. strike against either of these terrorist groups would not materially weaken Al Qaeda. Iran is problematic with respect to its designs of chemical and biological weapons programs coupled with desires to develop nuclear weapons. Terrorists could attempt to gain access to WMD “on the black market or by recruiting reengage scientists or other regimes, such as Iran” or North Korea which has been known in the past to support terrorism and sell weapons technology to bad actors.\textsuperscript{35}

The critical requirement for any of these external actors that may support Al Qaeda is their own survival and desire to maintain or gain legitimacy. They take risk in aligning with or supporting Al Qaeda by making themselves vulnerable to attack by the United States (witness what happened to the Taliban) that can bring military power to bear as well as economic sanctions. None of these potential allies appear, as Clausewitz would say, “more powerful” than Al Qaeda with regard to global terrorist reach. While attacking or neutralizing Al Qaeda allies may diminish the group’s ability to operate, Al Qaeda’s response would be to disperse and set up its network elsewhere. Thus, external support from other organizations is eliminated as a strategic center of gravity. Blocking Al Qaeda’s access to WMD and material assistance is a “decisive point” in degrading Al Qaeda or a critical requirement for Bin Laden. Further, the United States should be using its diplomatic element of power to build a coalition against
terrorism that could include “other organizations” like the states of Iran and Syria. The real sources of terrorists are from U.S. allies like Egypt, Pakistan, and Saudi Arabia that have repressive policies that fuel poverty, anger, and radical ideology as well as funding for the Islamist movement.36

AL QAEDA’S LEADERSHIP AND EXTREMIST MUSLIM IDEOLOGY

In looking at the dominant characteristics of a belligerent, Clausewitz indicated that a center of gravity in a popular uprising is the “personalities of the leaders and public opinion.”37 Al Qaeda’s leader, Osama Bin Laden, fits the Clausewitzian definition of a personality leading a popular uprising. Only today, this uprising is on a global scale with the objective of overthrowing the world order. Bin Laden rallies Muslim extremists. His charisma, vision, wealth, and leadership abilities are the reasons Al Qaeda is an effective terrorist organization striking fear across the globe while winning admiration among many in the Muslim world. Author Rohan Gunaratna in describing Bin Laden’s capabilities:

In the spectrum of contemporary terrorist leaders Osama bin Laden has no equal. As a leader who has employed violence in pursuit of his political aims and objectives, he stands out in many ways. First, he is the only leader to have built a truly multinational terrorist group that can strike anywhere in the world. For over a decade Osama has inspired, instigated and supported Islamist guerrillas and terrorists, bringing about many deaths and much human suffering. In the World Trade Centre attack alone, the victims were from nearly 100 different nationalities. Second, he has built a popular following throughout the Islamic world, being almost revered in Muslim circles in Asia, Africa and the Middle East and among the first- and second-generation migrants in North America, Europe and Australia. Nor has his popularity waned despite evidence that he masterminded the worst terrorist attack in history. He continues to be regarded as the supreme symbol of resistance to US imperialism. Third, Osama’s disposition towards his enemies has not mellowed in the face of the imminent threat to his own life and to his organisation. Even after the US cruise missile attacks in 1998 and intervention in Afghanistan in late 2001, the tone of his statements has remained constant, if not more strident. To his admirers he sets an example of fearlessness; he is unrelenting; neither he nor Al Qaeda will compromise [emphasis added].38

It is interesting to note that Clausewitz connected leaders of popular uprisings with public opinion. He did not expand on this idea in his book On War, but, his phrasing of “personalities of leaders and public opinion,” clearly links these two elements as a single center of gravity candidate. Although Clausewitz never could have imagined the world as it exists today, his observations and words still resonate by relating to the Gunaratna’s description above of Bin Laden and that segment of the Muslim population that supports his extremist Muslim ideology.
Thus, with Bin Laden, coupled with extremist ideology, as the strategic center of gravity for Al Qaeda, the United States must “direct its energies” at both. Echevarria offers the counter to this by saying:

… the avowed “hatred of apostasy,” rooted in a radical brand of Islam – rather than Osama bin Laden or another individual leader—probably serves as the group’s COG. Admittedly, bin Laden laid much of the groundwork to establish Al Qaeda, but it does not appear that his removal will cause his organization to collapse. Most analysts and intelligences sources claim that if bin Laden were captured or killed, another leader would simply take his place. That leader can only turn out to be either more or less effective than bin Laden. Thus, Al Qaeda’s leadership really amounts to a center of critical capability—something we want to neutralize but not something, in itself, that will end the war [emphasis added].

In my opinion, Bin Laden is not replaceable—another leader cannot “simply take his place.” Bin Laden possesses characteristics of a successful commander who not only knows the rules of the game, but he is “the one who through his genius created them.” Neutralizing this “genius,” who is clearly a talented yet ruthless and evil leader, will achieve “significant” results that will commence the unraveling of Al Qaeda. The author Peter Bergen, CNN’s terrorism analyst, notes that if Bin Laden is captured or killed, Al Qaeda will be dealt a blow. Bergen goes on to say:

Others down the chain of command might hate the United States as much or more, but it was bin Laden’s charisma and organizational skills that created his transnational terrorist concern. In death bin Laden will certainly become a martyr for his immediate followers. But the most obvious statement you can make about martyrs is that they are dead, and that would immediately make bin Laden less potent. Bin Laden’s al-Qaeda occupies the space that exists somewhere in between a cult and a genuine mass movement. Cults usually disappear with the deaths of their leaders: think of Jim Jones or David Koresh. So too will “bin Ladenism” eventually join what President Bush has called “history’s unmarked grave of discarded lies.”

In identifying the “hatred of apostasy” as the possible center of gravity, Echevarria suggests that the strategy to defeat Al Qaeda “will mean employing the diplomatic and informational elements of national power as deliberately, if not more so, as the military one.” I agree that the United States will need to employ these two elements of power as well as the economic element of power to effect the Islamist attitude and defiance. But, identifying the “hatred of apostasy” as the sole center of gravity seems to be an intangible thing to attack. In my strategic judgment I suggest it be the other way around. Neutralizing the Al Qaeda leadership should be the first priority and the “hub of all power and movement at which our energies should be directed.” To effect defeat of Al Qaeda by concentrating on influencing the will of disaffected Islamists may take a generation or longer to accomplish. We have a more
immediate need to conduct moral and physical harm on the Al Qaeda leadership now before they can orchestrate more hate and another major attack on us.

As Bin Laden provides the motivation of “hatred of apostasy,” fueling a world-wide uprising, his critical requirements include his personal safety and that of key Al Qaeda deputies within the command and control element, his ability to periodically communicate direction and targets for terrorists cells, and his ability to communicate his Islamist message to the world and gain support for his movement. Bin Laden also requires resources (financing, weapons, etc.) and a place to hide. Al Qaeda’s operations are also enhanced by the cooperation of other terrorist groups and entities sympathetic to Bin Laden’s cause through material assistance and shared information and intelligence. Bin Laden is vulnerable to U.S. or allied surveillance and attack if he can be located. He also could be rendered irrelevant if the Islamist movement that supports him could be thwarted. If Bin Laden is killed, his martyrdom would probably not last because martyrs do not feed or take care of people. On the other hand, martyrs can become powerful images; an information campaign would be necessary to counter this. If he is captured alive, he should be taken out of the limelight and tried in front of a tribunal without public access and media coverage.

The critical requirement for a “popular uprising” as in Al Qaeda’s Islamist movement, is a charismatic and visionary leader like Bin Laden. In addition, the movement requires something to hate (like Western culture) and is further fueled by repression and poverty and the lack of opportunity. The movement is further organized by the effort to educate and institutionalize the radical form of Islam through a “network of fundamentalist schools (madrassas), some of which radicalize and recruit youngsters for entrance into terrorists networks. Funded through Islamic charities and often espousing extreme views, madrassas will remain a key source of trouble in the years ahead.” The movement and its ideology are vulnerable to “fighting an idea with a better idea.” And, these ideas would include improved human rights, democratization of all nations in the Middle East, resolution of the Israeli/Palestinian issue, and stabilization of the Middle East region and economic development. It will take a generation or longer, but the United States must lead this effort.

CONCLUSIONS

During a recent Meet the Press interview, Senator Hillary Clinton of New York was asked by the moderator Tim Russert about her recent trip to Afghanistan and if she believed Osama Bin Laden was still alive and in the region. Her response:

I believe he is alive and I believe he is in the region. I’m glad you turned to Afghanistan, because as, you know, one young soldier said to me, “Welcome to
the front lines in the war against terrorism,” we have forgotten that that’s where those horrible attacks against us were planned and implemented from.

Russert’s follow-up question: “Will we get bin Laden?” Clinton’s answer:
We better.  We better, because the failure to get him fuels the kind of myth of fundamentalism and extremism and serves as a recruiting tool for people who would wish us ill.45

A counter to this line of thought comes from the magazine Newsweek:
It’s difficult to know where or how Osama bin Laden fits in...The CIA seems to believe that bin Laden and Zawahiri are either on the Afghan-Pakistani border or in a teeming Pakistani city like Karachi, while some Pentagon officials are intrigued by hints that bin Laden and Al-Zawahiri may be hiding in Iran.  Last week Marine General Peter Pace, vice chairman of the Joint Chiefs of Staff, told reporters that “bin Laden has taken himself out of the picture.”46

I agree with Senator Clinton.  Even if Bin Laden has taken himself out of the picture, we need to take a lesson from the ancient Romans who pursued the leaders of a Jewish revolt to Massada in Palestine with the thought “we are coming after you and will get you sooner or later.”47  This may serve as a deterrent for others who would wish us ill.

In this paper I have postulated the center of gravity for Al Qaeda as Osama Bin Laden and his brand of Islamist extremism.  In our war against terrorism, an analysis of COG candidates with the respective capabilities, requirements, and vulnerabilities all point to Al Qaeda’s leadership and ideology as the center of gravity at the strategic level.  Eliminating Bin Laden will lead to the unraveling of his movement because his followers will be demoralized from the loss of a leader of almost mythical proportions.  It will take patience, timing, and skill – the characteristics of a hawk described by Sun Tzu so long ago to break the body of its prey – and today that hawk is the American Eagle and his prey is Osama Bin Laden.

WORD COUNT=4537
ENDNOTES


3Ibid.

4Department of the Army, United States Army War College, “Center of Gravity Determination for Al Qaeda Conducts War of Global Reach Against the United States and Western Culture,” Memorandum for Whom It May Concern, Carlisle, PA, Spring 2003, 1.


10Ibid.

11These Al Qaeda COG candidates were derived from the memorandum Department of the Army, United States Army War College, “Center of Gravity Determination for Al Qaeda Conducts War of Global Reach Against the United States and Western Culture,” Carlisle, PA, Spring 2003, 16-17.

12Dr. Joe Strange offers a modern definition of center of gravity for Joint doctrine and as a suggested change to Joint Publication 3-0: “Centers of gravity are agents and/or sources of moral or physical strength, power, and resistance – what Clausewitz called ‘the hub of all power and movement, on which everything depends...the point at which all our energies should be directed.’ At the strategic level, centers of gravity might include a military force, an alliance, a political or military leader, or national will. All CGs have inherent ‘critical capabilities’ enabling them to function as CGs. In turn, all critical capabilities have essential ‘critical requirements’ necessary for the realization of those capabilities. ‘Critical vulnerabilities’ are those critical requirements or components thereof which are deficient, or vulnerable to neutralization, interdiction or attack (moral/physical harm) in a manner achieving decisive or significant results, disproportional to the military resources applied. Dr. Joe Strange, Perspectives on Warfighting, Centers of Gravity, & Critical Vulnerabilities (Quantico, VA: Marine Corps University Foundation, 1996), 99.
13Clausewitz, 596.

14Gunaratna, 58-59.

15Ibid.

16Ibid., 59-60.

17Ibid.

18Williams, 8.

19Combs and Slann, 166.


23Gunaratna, 60-69.

24Ibid., 60.

25Ibid., 61.


27Ibid.

28Ibid.

29Ibid., 34.

30Ibid.

31Clausewitz, 596.


33Gunaratna, 146 and 150.

34Clark, 114.

35Clark, 130.
13

36Ibid., 131.

37Clausewitz, 595-596.

38Gunaratna, 53.


40Howard, 14.


42Echevarria II, “Reining in the Center of Gravity Concept.”

43Clark, Winning Modern Wars, 153.

44This thought about “fighting an idea with a better idea,” comes from discussions with Dr. Jerome Comello, Professor of Military Studies, U.S. Army War College, interview by author, 13 January 2004, Carlisle, PA.


47This idea about the ancient Romans comes from my notes on listening to a lecture introducing students to the Campaign Analysis Course in Bliss Hall by Colonel Michael R. Matheny, Professor, Basic Strategic Arts Program, U.S. Army War College, Carlisle, PA, 29 January 2004.
BIBLIOGRAPHY


Comello, Jerome Dr., Professor of Military Studies, U.S. Army War College. Interview by author, 13 January 2004, Carlisle, PA.


Matheny, Michael R., Colonel, Professor, Basic Strategic Arts Program, U.S. Army War College. Lecture introducing students to the Campaign Analysis Course, 29 January 2004, Carlisle, PA.


