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CAN “AIRPOWER” COUNTER THE ASYMMETRIC
THREAT?

FACTORS INFLUENCING THE EMPLOYMENT OF AIR-
POWER AGAINST INTERNATIONAL TERRORIST THREATS

by

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Abstract

Asymmetric threats have risen to the forefront of United States national security concerns in recent years. International terrorism is one such threat that continues to be a chief concern for the U.S. at home and abroad. Airpower provides unique capabilities in the areas of dominant maneuver and precision engagement that can be leveraged against this particular threat to national security.

Technological advancements in airpower weapons such as cruise missiles, tactical aircraft (including stealth/low observability bombers), and standoff precision weapons make them “the weapon systems of choice” when preemptive or retaliatory kinetic strikes are ordered against terrorist targets. Even though advancements in technology have increased the successfulness of these weapons, further advances in Precision Guided Munition (PGM) technology are warranted.

More important however, are the ancillary factors that can negatively influence the military’s ability to counter the asymmetric threat. Interagency cooperation at the heart of U.S. efforts to fight terrorism has been recently criticized and requires some level of reform. Additionally, high-level decisions pertaining to the employment of airpower, and military force in general, has been negatively influenced by what has been termed the “casualty aversion mindset” a factor of particular concern when fighting the asymmetric terrorist threat.

This essay begins with an introduction to the term “asymmetric” and a discussion of what it means to the military. Attention is then focussed to the “new generation” terrorist

threat the military must be postured to fight. Finally, the contemporary issues mentioned above are discussed as they relate to the employment of airpower against the asymmetric threat of international terrorism.

These issues lend support to my thesis that airpower can counter this particular asymmetric threat, but there are concerns that should be addressed by the military and the government in order to fight terrorism more effectively.

Chapter 1

Introduction

Because terrorist organizations may not be deterred by traditional means, we must ensure a robust capability to accurately attribute the source of attacks against the United States or its citizens, and to respond effectively and decisively to protect our national interests.

—A National Security Strategy for a New Century, December 1999

With the collapse of the Soviet Union, the dismantling of the Warsaw Pact, and the accompanying end to the cold war the United States of America has shifted its National Security Strategy focus. As a result, the 1997 National Military Strategy (NMS) provided national-level recognition to a new specific set of threats to U.S. interests titled **asymmetric threats**. One such asymmetric threat the U.S. is posturing to fight against is international terrorism.

During calendar year 1999, 169 terrorist attacks targeted U.S. facilities and killed or injured U.S. citizens – only one of which occurred on North American soil.¹ Most terrorism experts and key government agencies like the Central Intelligence Agency (CIA) and the Department of State (DOS) agree that terrorism is evolving. State sponsored terrorism appears to be on the decline while “new generation” transnational terrorism is on the rise. As a result of this evolution, the world has witnessed the emergence of a new breed of terror perpetrated by “super terrorists” like Usama bin

Ladin*. Terrorists like bin Ladin pose new and very real dangers for the U.S. and her allies around the globe. The Director of the Central Intelligence Agency (DCI) George J. Tenet recently told the Senate Select Committee on Intelligence that Saudi exile Usama bin Ladin's "global network" is the "most immediate and serious" terrorist threat to the United States. Additionally, Director Tenet also testified that this new breed of terrorists are "becoming more operationally adept and more technically sophisticated."² The 1999 statistics underscore the fact that the U.S. is not immune to terrorism either at home or abroad. For the military this point was painfully reinforced on October 12th, 2000 when a small craft loaded with explosives attacked the Navy destroyer USS Cole killing 17 sailors and injuring nearly forty others. In retaliation to similar terrorist attacks, the U.S. National Command Authorities (NCA) have ordered the use of military force. The most recently example took place on August 20th, 1998 when the U.S. attacked targets in Afghanistan and in Sudan as retaliation for the two August 7th bombing attacks on U.S. embassies in Kenya and Tanzania.

The threat of terrorist attack is real, as is the likelihood that the U.S. military will be ordered to respond. Airpower is often called upon to be the lead element in the employment of the Military Instrument of Power (IOP), and certainly will be called on again in the future to strike this type of asymmetric threat. This fact begs several questions; "Can airpower counter the asymmetric threat?" and "What factors influence the employment of airpower against international terrorist threats?"

Before these questions are addressed, certain background information is required to develop a common perspective. This effort begins in Chapter 2 as the term "asymmetric" is discussed in relation to warfare in general. The unique capabilities of airpower are

underscored in this chapter as they relate to the fight against the terrorist threat. Chapter 3 then focuses attention to terrorism itself and provides an overview that highlights the recent evolution of terrorism pointing out key issues to the war fighter. This is done because understanding the threat is one of the crucial steps in defeating it. Then in Chapter 4, a pragmatic look is taken that reviews several contemporary factors influencing the military's ability to employ airpower effectively. Finally, the conclusions are presented in Chapter 5 that summarize the key concepts and major concerns relating to airpower's ability to counter this particular asymmetric threat.

*Several different spellings of the name Usama Bin Ladin exist in the material referenced, the DOS spelling will be used exclusively for standardization purposes.

Notes

¹ *Department of State (DOS) 1999 Patterns of Global Terrorism*, Appendix C.

² Pincus, Walter, and Vernon Loeb, "Bin Laden Called Top Terrorist Threat," *Washington Post*, 8 February 2001, 16.

Chapter 2

What “Asymmetric” Means to the Military

Asymmetric challenges are legitimate military concerns. We must increase our capabilities to counter these threats and adapt our military doctrine, training, and equipment to ensure a rapid and effective joint and interagency response.

—1997 U.S. National Military Strategy

The words of the former Chairman of the Joint Chiefs of Staff (CJCS) General Shalikashvili, in the 1997 NMS, send a very clear message; **the military must be prepared to respond quickly and effectively to asymmetric threats.** This passage also demonstrates the requirement to focus U.S. attention in specific areas i.e. “increase capabilities” and “adapt military doctrine, training, and equipment to ensure a rapid and effective joint and interagency response.” Guidance from the CJCS such as depicted above, as well as similar direction provided by the NCA, underscores the fact that asymmetric threats have risen to a new level of importance. Although passages like the one presented provide some direction, what does the term “asymmetric threat” actually mean? As we begin to answer this question we will first refer to the U.S. National Security Strategy and the National Military Strategy for strategic level guidance.

The National Security Strategy (NSS) presents overarching guidance from the President of the United States pertaining to U.S. national security and thus possesses the

broadest dialog. A National Security Strategy for a New Century, December 1999, delineated six general categories of threats that are listed under the title “Threats to U.S. Interests”; they are Regional or State-Centered Threats, *Transnational Threats*, *Spread of Dangerous Technologies*, Failed States, Foreign Intelligence Collection, and Environmental and Health Threats. Two of the six categories of the threats listed, *Transnational Threats* and *Spread of Dangerous Technologies* [italicized above] specifically contain terrorism as part of their definition. Additionally, the NSS specifically tasks the military to be able to respond to these threats when ordered by the NCA.

The Chairman’s NMS is more specific as it provides strategic direction to the Armed Forces. The 1997 NMS states “Asymmetric Challenges” include the use of “unconventional or inexpensive approaches that circumvent our strengths, exploit our vulnerabilities, or confront us in ways we cannot match in kind.” Additionally, the NMS lists the threat of terrorism, the use or threatened use of Weapons of Mass Destruction (WMD), and Information Warfare (IW) as examples of “Asymmetric Challenges.”

By referencing the NSS and the NMS, the critical foundation was laid for future discussions of “asymmetric threats.” These documents identified terrorism and unconventional attacks as chief concerns to national security. However, asymmetric warfare can mean different things to different people depending on professional backgrounds and operational experiences. The most generic definition of the term often alludes to something other than force-on-force, a description that captures nicely the *modus operandi* of the terrorist. Moreover, often the best examples are gleaned from studying history, in this vane we shall now look to military encounters against

asymmetric threats. The vignettes listed below were written by two prominent General officers, and their essays underscore several key concepts germane to asymmetric threats and how to fight them.

A “Real World” Asymmetric Fight

The October 23rd, 2000 issue of *Time* magazine featured an article written by General Wesley K. Clark, former Supreme Allied Commander, Europe entitled “*How to Fight an Asymmetric War.*” In the essay General Clark discussed the ongoing armed conflict between the Israelis and the Palestinians, and focused on changes in tactics due to emerging asymmetric warfare. Dating as far back as 1973, is an evolution in Israeli military tactics, techniques, and procedures as well as the equipment employed that occurred as a direct result of the asymmetric battles fought against the Palestinians.

Early in the conflict there were predictable escalations in what is considered to be conventional tactics. The Palestinian infantry began to use rocket propelled grenades and antitank guided missiles in support of their small arms attacks. The Israelis then retaliated by employing mortars on their tanks and sought the commanding high ground. Both measures taken by the Israelis proved to be an effective counter to the Palestinian “stepped-up” tactics. These incremental changes in tactics went on for many years and the battles resembled conventional force-on-force clashes in urban and rural environments with outcomes almost always favoring the adaptive Israeli military. However, things changed when the Palestinians inside Israel eventually altered their tactics to avoid fighting the force-on-force battles they could not win.

Instead of fighting force-on-force, the Palestinians began to resist using “non-lethal” means such as wielding clubs and throwing rocks. However, dispersed within these rock

throwing crowds were armed men that proved to be very lethal. Israel was now faced with a new “asymmetric” problem; how do you fight a force that is largely a crowd control issue, albeit a hostile crowd, that has the potential to wield deadly force? At first, Israel attempted to respond with conventional means. The Israeli military employed more heavily armored tanks and troop carriers, they flew Apache helicopters, and even used advanced optics and Unmanned Aerial Vehicles (UAVs), but responding to the asymmetric Palestinian fighters with conventional weapons and tactics proved difficult if not impossible. So once again the Israeli military was forced to alter its tactics. The Israeli troops of today are armed with plastic bullets and other riot control gear when fighting the less equipped Palestinians. The Israeli military has not forfeited the use of deadly force, but only turns to it when other non-lethal measures fail. General Clark observed that a phenomena existed whereas as “the capabilities of the two sides, though totally asymmetric, were almost totally counterbalanced.”¹ In fact, the changes in tactics by the Palestinians forced the battles they could not previously win down a level that allowed them to gain the initiative over the Israelis.

Another critical aspect of this war was discovered when casualty aversion had become a critical issue. The Israelis discovered that killed and wounded on either side of the battlefield proved unacceptable in the world’s court of public opinion. General Clark stated that “for Israel, every street battle has to be tactical and defensive, requiring responses aimed at protecting lives and property. For Israel, every casualty, even those among Palestinians, is a loss. For the Palestinians, every clash is strategic and offensive, increasing the pressure on Israel, building support in the Arab world and, with every Israeli military response, affording the opportunity to further isolate Israel from its

liberal, democratic, and idealistic supporters. For the Palestinians, every casualty, even their own, can be a strategic gain.”² Thus, Israel is now fighting an asymmetric battle that is an awkward balance of mismatched force where technologically superior weapons are abated by the tactics adopted by the Palestinians. Additionally, the Israelis are forced to fight with a restrictive set of rules of engagement because the dramatic effects of casualties, on both sides of the conflict, influence Israel directly via the pressure of international public opinion.

It is important to discuss General Clark’s article because it illustrates recent real world asymmetric challenges that forge key lessons learned. Just as important however, are the very tangible similarities that can be drawn between how the Palestinians have chosen to fight the Israeli military and how international terrorists often chose to fight the U.S.

Airpower Can Leverage Asymmetric Force

As stated earlier, the most likely employment of U.S. airpower will be to execute preemptive and retaliation strikes. The technological advancements in the aerospace industry have allowed the military to shift the way it projects power and plans to fight. The former United States Air Force (USAF) Chief of Staff, General Ronald R. Fogleman wrote an article that depicts air power as the “force of choice” when fighting an asymmetric battle.

General Fogleman’s article was featured in the Summer 1996 issue of *Air Power History* and detailed USAF achievements in Operations DESERT SHIELD and DESERT STORM. The article also focused on the shift in USAF strategy to a “new way of war”

(i.e. to a more asymmetric fighting strategy) that was enabled by advancements in aerospace capability.

This “new” strategy avoids the force-on-force attrition style battles and instead leverages the unique capabilities inherent with the employment of airpower to strike the enemy’s centers of gravity (on both the strategic and tactical levels) as demonstrated during the “air war” against Iraq. This shift was made possible during the later part of the 20th century because airpower had matured and the new technologies had enhanced precision, range, and overall lethality of weapons across the spectrum of aerospace power. During the Gulf War, these technologies coupled with the tactics, techniques, and procedures enabled military leaders to fight a “new” American way of war. General Fogleman wrote that “an asymmetric strategy significantly increases the role of airpower [*sic*] in times of peace, crisis, and war.” He additionally stated that “we must understand airpower [*sic*] – its strengths, its weaknesses, and its potential – if we are to fully capitalize on it to attack an adversaries strategy and compel him to do our will.”³ To General Fogleman, as his post Gulf War article points out, the “asymmetric” application of airpower against ground targets is one of the keys to future battles.

These two General officers highlight several key issues in fighting an asymmetric threat. General Clark’s article demonstrated that weaker forces could adopt “asymmetric” tactics to force a stronger opponent to adopt lesser tactics that will compromise its strengths. Additionally, public opinion and casualty aversion can have a profound effect on how the military might be ordered to fight. General Fogleman’s article on the other hand discusses the recent evolution of USAF tactics to an asymmetric stance that capitalizes on the unique capabilities of airpower in an asymmetric type of

battle, a capability that can transfer directly to U.S. counterterrorism efforts. To complete our picture of asymmetric threats we must focus our attention to the modern day terrorist.

Notes

¹ Clark, Wesley K. "How To Fight An Asymmetric War," *Time*, 23 October 2000, 40.

² Ibid.

³ Fogleman, Ronald R. "Advantage USA Air Power and Asymmetric Force Strategy," *Air Power History*. Vol 42, no. 2 (Summer 1996), 12.

Chapter 3

Focus on Terrorism

The US Government continues its commitment to use all tools necessary – including international diplomacy, law enforcement, intelligence collection and sharing, and military force – to counter current terrorist threats and hold terrorists accountable for past actions.

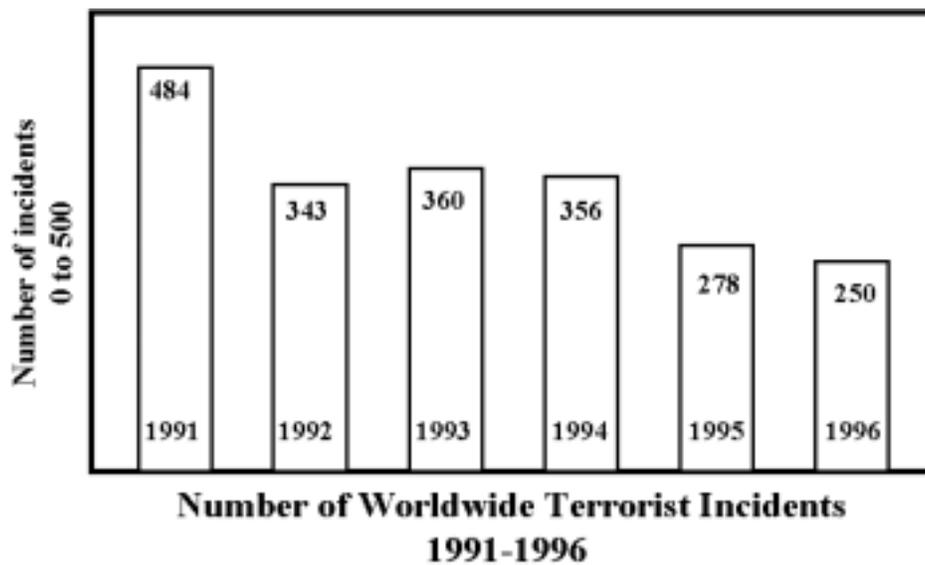
—Patterns of Global Terrorism 1999 (U.S. D.O.S.)

The extraordinary developments in global terrorism precipitated changes in our national security environment and remind us that the assumptions America made during the Cold War regarding terrorism are no longer valid. During November of 1995 terrorist bombs killed five Americans and wounded nearly 40 other people at the Office of Program Management-Saudi Arabian National Guard (OPM/SANG), in Riyadh, Saudi Arabia. Approximately seven months later, in June of 1996, another terrorist bomb killed 19 U.S. Airmen and wounded approximately 240 other servicemen during an attack at the Khobar Towers military housing complex in Dhahran, Saudi Arabia. On August 7th, 1998 two nearly simultaneous terrorist attacks occurred against the U.S. Embassies in Nairobi, Kenya, and in Dar es Salaam, Tanzania leaving 224 dead and wounded over 4,500 others - 12 of the victims of the Nairobi attack were U.S. citizens. During 1999, there were 169 terrorist attacks that specifically targeted U.S. facilities or killed or injured U.S. citizens. More recently, on October 12th, 2000 a small boat containing explosives detonated against the hull of the Navy destroyer USS Cole killing 17 sailors and

wounding nearly forty others. These dramatic events tend to focus our attention, but the most important fact remains to be disclosed; **“terrorists have targeted the United States more often than any other country in the world.”**¹ Military solutions to the terrorism problem are difficult ones not only because it presents a complex set of unique challenges, but also because terrorism itself is evolving and the U.S. military has been criticized for being an entity that is slow to change.

Recent Trends

Statistics portray a decrease in the aggregate number of terrorist incidents during the years of 1991 to 1996. The world witnessed a total of 484 terrorist incidents in 1991, which declined to a 23-year low of 250 terrorist incidents during 1996. (Figure 1).



Source: The RAND - St. Andrews Chronology of Terrorism

Figure 1 World Wide Terrorist Incidents

These statistics seem promising, but they are in fact misleading because although the total volume of terrorist incidents worldwide has declined during the 1990's the

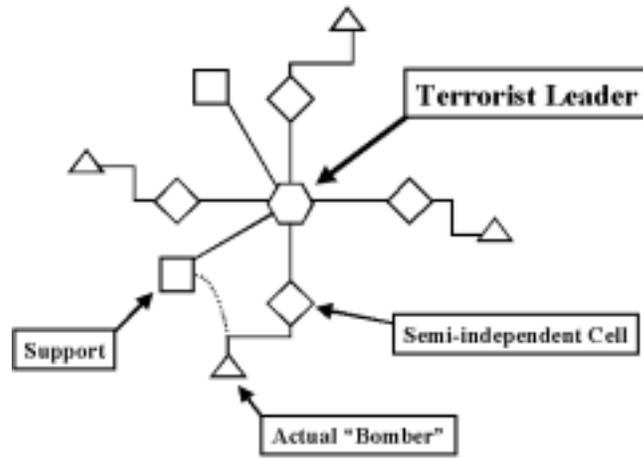
percentage of terrorist incidents with fatalities has increased. For example, “1996 was one of the bloodiest years on record. A total of 510 persons were killed: 233 more than in 1995 and 91 more than in 1994. In fact, the 1996 death toll ranks as the fourth highest recorded in the chronology since we [the RAND Corp] began monitoring international terrorism in 1968.”² This data supports the views of terrorism experts who profess that although fewer incidents are taking place, the “new breed” of terrorists are becoming more lethal.

Terrorism is evolving, the more traditional form of state-sponsored terrorism appears to be waning and is assessed as being unlikely to make a comeback. Instead, a new generation of network centric terrorists are emerging. These new generation terrorists operate in a less hierarchical fashion than did their predecessors, and are “more attuned to the organizational, doctrinal, and technological imperatives of the information age.”³ The most notorious terrorist of this new generation is millionaire Saudi exile Usama bin Ladin who epitomizes this new breed and provides the most salient example of this asymmetric threat in which to study. As stated earlier, DCI George J. Tenet recently told the Senate Select Committee on Intelligence that Saudi exile Usama bin Ladin’s “global network” is the “most immediate and serious” terrorist threat to the United States. In 1999 the RAND Corporation’s Project AIR FORCE published a book entitled Countering The New Terrorist Threat that employed the expertise of several terrorism experts to research and report on this new generation of terrorism and provide recommendations for national strategic policy. The following paragraph from that book underscores why bin Ladin epitomizes the emerging terrorist threat that the U.S. must posture its defenses against.

“One of the leaders and founders of the Arab Afghan movement, Usama bin Ladin [*sic*], a Saudi entrepreneur who bases his activities in

Afghanistan, is suspected of sending operatives to Yemen to bomb a hotel used by U.S. soldiers on their way to Somalia in 1992, plotting to assassinate President Clinton in the Philippines in 1994 and Egyptian President Hosni Mubarak in 1995, and having a role in the Riyadh and Khobar blasts in Saudi Arabia that resulted in the deaths of 24 Americans in 1995 and 1996. U.S. officials have pointed to bin Ladin [*sic*] as the mastermind behind the U.S. embassy bombings in Kenya and Tanzania, which claimed the lives of more than 260 people, including 12 Americans.”

These new generation terrorists are transnational threats that often have a central leader (like bin Ladin) but have no single defined command structure. Instead, there exists a series of semi-independent cells that are loosely connected to conduct the actual terrorist acts or support thereof. In fact, one recent trend is to have the actual terrorist act, that often ends in the death of the terrorist (like driving the truck bomb), committed by an “amateur” vice a hardened “career” terrorist. Also, in some instances the terrorists themselves do not claim responsibility for the attack, but instead deny involvement since admission of culpability often carries the price tag of a violent military or law enforcement response. This new organizational structure is called “network centric” and poses a different set of concerns than did the more traditional terrorist hierarchies. Figure 2 graphically depicts a network structure.



Hub or Star Network

Source: Countering The New Terrorist Threat, RAND

Figure 2 Network Diagram

The evolution of terrorism to network centric warfare or netwar has given rise to certain paradigms that could be used to describe the new strategy employed by terrorists. One paradigm that is of particular concern is the “War Paradigm” where terrorist acts are perpetrated when weaker parties cannot challenge a stronger adversary directly and thus must turn to asymmetric methods. “A war paradigm implies taking a strategic, campaign-oriented view of violence that makes no specific call for concessions from, or other demands upon, the opponent. Instead, the strategic aim is to inflict damage, in the context of what the terrorists view as ongoing war.”⁴ This particular paradigm seems the most plausible explanation for motives behind terrorist like bin Ladin.

The final concern regarding the new generation of terrorism lies with the fact that terrorists are becoming more lethal. The bomb placed at the Khobar Towers, in Saudi Arabia has been estimated at weighing over 20,000 pounds and had devastating explosive effects. The fear is that new-generation terrorists are concerned with larger body counts and that increases the likelihood that a terrorist may use WMD. In 1998 the Federal

Bureau of Investigation (FBI) reported that “international terrorists have demonstrated an interest in chemical and biological materials. In fact, press reporting indicates that approximately a dozen international groups, all sharing anti-U.S. sentiment and some with a history of kidnapping and killing U.S. persons abroad, are attempting to use or procure these lethal materials for future attacks.”⁵ The WMD threat was realized on March 20th, 1995 when the *Aum Shinrikyo* doomsday cult used sarin nerve gas to attack a crowded subway in Tokyo, Japan killing 12 persons and wounding 3,796 others. It was later discovered that this same cult had plans to conduct a similar attack in the U.S.

Of special concern regarding WMD is the fact that terrorists are taking greater measures to protect their critical sites by placing them underground. This trend follows the example set by nations that sponsor terrorism and makes the detection and destruction of WMD production and storage facilities all the more difficult. Airpower will be limited to employing the weapons that offer the greatest penetration. Today that capability resides in manned tactical aircraft employing specialized “penetrator” PGMs, since cruise missiles offer limited payload size and penetration capability.

For the U.S. it is not a question of “if” a terrorist attack will occur, instead the question is “when.” Network centric terrorism poses new challenges for the U.S. to face. The U.S. has responded in the past using military force against terrorist targets. Future military response to a terrorist threat or actual attack must be thoroughly planned and not an ad hoc reaction to a crisis. To better prepare for the next engagement we must expand our understanding to include the factors that influence air power’s ability to successfully complete the counterterrorism mission.

Notes

¹ Ian O. Lesser et al., *Countering The New Terrorism* (RAND Project AIR FORCE: RAND, 1999), 35.

² *Ibid.*, 12.

³ *Ibid.*, 60.

⁴ *Ibid.*, 69.

⁵ *Terrorism in the United States 1988* (U.S. Department of Justice, Federal Bureau of Investigation, Counterterrorism Threat Assessment and Warning Unit National Security Division, 1999), 14.

Chapter 4

Factors that Influence the Employment of Airpower

The use of military force to strike terrorist targets is a requirement set forth by the NSS and the NMS. Although the military has successfully responded with force in the past, is the military completely postured to carry out this mission? Moreover, since the military does not act alone, what are some of the key factors that influences airpower employment? The answers to these questions will be provided below.

It is foreseeable that the U.S. will employ airpower when conducting preemptive and retaliatory strikes, whereas cruise missiles and tactical aviation will play the lead role. Because the actual mechanics of striking a terrorist target are not substantially different from other strike missions (like the ones flown against Iraq), we can first devote attention to the advancements in technology required to strike all targets more effectively. Then we shall shift attention to the ancillary factors that influence our nation's ability to project military power. We will look at the adequacy of the U.S. interagency process that should ensure unity of effort and a swift, sure, and severe response to terrorism. Then because terrorists are becoming more lethal and the issue of casualties on both sides has become a central issue for America, as it did for Israel, we will look at the casualty aversion mindset and how it might impact airpower's ability to counter the asymmetric threat.

Airpower and Precision Engagement

The unresting progress of mankind causes continual change in the weapons; and with that must come a continual change in the manner of fighting.

—Alfred Thayer Mahan, 1910

Airpower has evolved since the United States Navy and Air Force launched over 90 aircraft during Operation EL DORADO CANYON to destroy five targets in Libya as retaliation for a West Berlin terrorist bombing in April of 1986. Advancements in aviation technologies have brought the expectations of airpower theorists like Giulio Douhet and Billy Mitchell to reality. The employment of aircraft and precision munitions during the Gulf War and the air war over Serbia demonstrated the accuracy, utility, and lethality of modern day airpower. As General Fogleman pointed out, airpower provides a unique set of tools to leverage success not only in the next conventional war, but also for use against asymmetric threats as well.

Operations DESERT STORM and ALLIED FORCE introduced the lethal combination of Stealth/Low Observability aircraft coupled with Precision Guided Munitions (PGMs). Although the effectiveness of PGMs during the Gulf War is well documented, certain facts bear repeating. During Operation DESERT STORM, U.S. Air Force F-117's flew approximately 2% of the total attack sorties, but struck nearly 40% of the strategic targets.¹ F-117s and cruise missiles proved to be the weapons of choice when attacking heavily defended areas or when civilian casualties and collateral damage were to be kept to a minimum (i.e. like when attacking inside a highly populated city). Additionally, certain "penetrator" PGMs like the GBU-27 (a 2,000-pound Laser-guided Bomb (LGB)) were often used to penetrate hardened targets that were not susceptible to

other, more conventional, bombs. Thus underscoring the requirement to use a manned aircraft instead of a cruise missile when the desired effect is the penetration of a hardened target. This is an important distinction because both state sponsored and new generation terrorists are building subterranean facilities to protect their WMD and other critical assets. Also during the Gulf War these weapon systems were often employed in a complimentary fashion; the F-117s would operate at night, affording additional protection due to the reduced threat of visible detection, while the cruise missiles could be operated during the daytime. This provided the U.S. with a round-the-clock precision attack capability and while greatly reducing the possibility of aircraft and crew combat losses. Similar methodology can be used to kill terrorist targets. However, there are limitations to these weapon systems.

The most common factor influencing a LGB is weather. In fact, during DESERT STORM the F-117 was adversely affected by bad weather to the point of turning back from missions 19% of the time.² Overcast skies, fog, and smoke can also limit LGB employment. It is true that PGMs have changed the way we think about bombing, however the leaps in technology made during the last decade should be viewed as the starting point since increased capability is both desired and warranted.

Future PGMs must be more accurate, have increased standoff range, rely on autonomous guidance, and have improved all-weather capability. Additionally, follow-on PGMs must be suitable for employment on a variety of platforms including existing aircraft as well as future systems such as F-22 and JSF, etc. Future PGMs must also be scalable and have a high degree of predictability to limit collateral damage (if required) while still achieving the desired results. Weapons such as the GBU-31/32 Joint Direct

Attack Munition (JDAM), the AGM-154 Joint Stand-off Weapon (JSOW), and the future Joint Air-to-Surface Standoff Missile (JASSM), are steps in the right direction but clearly more work needs to be done in this area to enhance airpower capabilities during conventional warfare as well as when striking asymmetric threats.

The Interagency Process

U.S. efforts to combat international terrorism require strong leadership, high levels of interagency coordination, and a clear national strategy to ensure unity of effort and when required a cohesive and lethal unified response. Several independent commissions ordered by the former Secretary of Defense William Cohen have recently criticized our nation's preparedness to fight this specific threat. This subject deserves careful attention by our country's leadership coupled with some degree of reform.

In Stephan M. Duncan's article "*Catastrophic Terrorism*," real concern is voiced regarding the lack of U.S. preparedness for possible international terrorist attacks. Duncan states that "our nation's defense against a catastrophic attack are poorly organized and lack a Strategic or a comprehensive National Plan."³ His criticism is based on the recent findings from an independent commission led by the former SecDef. Duncan, along with other experts, support the likelihood of possible international terrorist attacks and underscores a general lack of preparedness of the U.S. He states that "successful preparation involves several elements. It requires leadership. It requires a comprehensive strategy. It requires effective organization and coordination. The problem is complicated by overlapping, legal jurisdiction, fragmentation of effort, redundancy, an absence of standards, the complexity of the structure of the Federal Government, and by the widely varying resources and expertise of the individual

departments and agencies of the Federal Government, the states, and local communities.”⁴

Supporting these claims Duncan cites a “lack of leadership” and poor governmental organization as different agencies are given “lead role” status for different stages of a national response to a terrorist act. The FBI is the lead agency for “crisis management” while the Federal Emergency Management Agency (FEMA) is the lead agent for “consequence management.” There is no delineation stated for when these two phases transfer responsibility or if and when lead agency status is given to the DOD for military retaliation or augmentation of existing efforts. Additionally, legislation in this area is insufficient especially under the circumstances when the international terrorist attack takes place on U.S. soil. Jurisdictional difficulties stem from restrictions placed on the military by the Posse Comitatus Act, Section 1385 of Title 18, of the U.S. Code as well as other constitutional challenges. Besides the problems mentioned there is also a diffusion of responsibility and thus an inherent lack of accountability in the leadership chain that is best described as being convoluted.

During the Clinton administration the President appointed a “Director of Weapons of Mass Destruction Preparedness” who reported to a special assistant to the President with the title of “National Coordinator for Security, Infrastructure Protection and Counterterrorism” who in turn reports to the Assistant to the President for National Security Affairs. None of these offices provided any central leadership for the myriad of agencies involved, nor did they require senate confirmation before assuming their post. These shortfalls and bureaucratic difficulties are inherent parts of the current system and were identified last October when the DOD created a new Joint Task Force for Civil

Support. Besides identifying problems and challenges, this Joint Task Force also recommended “that a military officer should be in charge of what is in reality, a high level, federal/state/local political leadership/management challenge.”⁵ Although the military must be fully engaged in all aspects of confronting this type of asymmetric challenge, it must be sagaciously careful not to be placed in a difficult civil-military command position.

The problems mentioned above center on the shortfalls of national leadership, national strategy, and the complex organization and coordination issues. The individual agencies are experts in their own right, but interagency coordination remains a challenge. Reform in this area is required and the shortfalls must be worked out now, before an attack vice amongst the confusion of a post attack scenario.

The Casualty Aversion Mindset Can Hurt the Mission

Public opinion and rhetoric from special interest groups can unduly influence NCA decisions and congressional backing of military operations. Decisions to employ airpower should be based upon careful detailed planning and a risk management analysis of the problem. Analyzing the possibility for U.S. casualties and estimating probable collateral damage are moral imperatives that should always be considered. However, an overreaction to the possibility of U.S. casualties can adversely effect force employment decisions and undermine U.S. credibility and resolve.

Casualty aversion has risen to a higher plane of visibility in the wake of the Vietnam War. The dysfunctional civil-military coordination and highly publicized casualty rates during U.S. involvement in Vietnam are seen as the impetus for this line of thinking. As a result, Casper W. Weinberger serving as Secretary of Defense, introduced doctrine that

would prescribe the criteria necessary for future employment of military forces. Years later, General Colin Powell when serving as Chairman of the Joint Chiefs of Staff revised this criteria and established what is now referred to as the Weinberger-Powell doctrine. This doctrine directs that military force should only be used when America's *Vital Interests* are at stake and only when public and congressional support exist. In light of this doctrine and the recent decisions made by U.S. leadership regarding force employment, it has been argued that America has become a casualty averse society. This implies that American citizens are no longer tolerant of high U.S. casualty rates. Moreover, keeping casualty rates low or nearly nonexistent has become a unit of measure of success in and of itself. Supporting this claim is a 1985 RAND study that stated that "every time U.S. casualties went up by a factor of ten, support in both wars [Korea and Vietnam] decreased by approximately 15 percent."⁶ Dr. Karl P. Mueller captured this mindset in his article "*Politics, Death, and Morality in U.S. Foreign Policy*" where he stated "Many statesmen and generals believe, with absolute and unquestioning conviction, that the United States can no longer use force successfully unless American military casualties are virtually nil, even though there is little evidence to support this belief and in spite of its pernicious effects on US foreign and defense policy."⁷ Although some military and civilian leaders view this phenomenon to be an "axiom" of modern warfare, there exists evidence to the contrary.

During the summer of 2000 the United States Air Force published a series of articles in the professional flagship publication, the *Aerospace Power Journal (APJ)*. Several academic and military professionals argued that the placement of the casualty aversion mindset lies not with the general public, but instead, as Dr. Mueller pointed out, shifts the

blame to our civilian leadership and even the senior military officials themselves. In other words, it is the key decision-makers that are imposing limits on military actions based on their fear of potential casualties not because of overwhelming public outcries. This is a paradigm shift of the common beliefs. The following excerpts from *APJ* support this shift and illustrate why this mindset can negatively impact the military's mission.

Major Charles K. Hyde, USAF, wrote an article entitled “*Casualty Aversion: Implications for Policy Makers and Senior Military Officers*” that recounts findings from a Triangle Institute for Strategic Studies (TISS) document that stated “the American public is far more tolerant of potential casualties than are policy makers or senior military officers.”⁸ Major Hyde argues that the casualty avoidance behavior reported by the 1985 RAND study cited above did not consider certain environmental and contextual elements in their reporting that would undermine this casualty-awareness syndrome. Hyde further states “the public is able to rationally discern the merits of each individual case and make an informed determination of support. Based on expectations, benefits, prospects, and costs.”⁹ Jonathan Foreman also reports similar findings in his research article “*The Casualty Myth*”. “Less well understood, however, is the fact that the importance of casualties to support has varied greatly across operations; when important interests and principles have been at stake, the public has been willing to tolerate rather high casualties. In short, when we take into account the importance of the perceived benefits, the evidence of a recent decline in the willingness of the public to tolerate casualties appears rather thin.”¹⁰ Relating this to current events, Dr. Jeffery Record reported in his article “*Force-Protection Fetishism*” that “two months after Iraq invaded Kuwait, [CJCS]

Powell told Sir Patrick Hine, Britain's Air Chief Marshal, that the risks of war, including a high death toll, possible degeneration into attrition and losing the peace, were simply too great. Powell of course went on to oppose any US military intervention in the former Yugoslavia."¹¹

During Operation ALLIED FORCE (OAF) against Slobodan Milosevic's military forces two factors were at work that negatively impacted the mission. First, the NCA chose not to employ ground forces, thus severely limiting military options and thus losing key coercive leverage that ground forces and combined arms offers. The casualty aversion mindset was also a factor in the decision to enact altitude restrictions and limit target selection criteria for air power employment that negatively effected bombing profiles and target lists. Second, Milosevic's strategy, like Saddam Hussein's in the Gulf War, was to inflict as many US casualties as possible because he assessed that America's intolerance of casualties is one of our country's major weaknesses. Some experts argue that without these restrictions during OAF, NATO and the U.S. could have brought a quicker end to the hostilities, which would have stemmed the refugee flow that much sooner.

These discussions of casualty aversion do not, by any means, lessen the moral and ethical responsibility of all commanders to consider the best method to employ airpower and ground forces with the least possible loss of life when accomplishing the assigned mission. However, casualties are often one of the costs of doing business when the military is ordered into action. Sound tactics, techniques, and procedures based on proven doctrine and implemented with sound risk assessment and management decisions should govern when and how we fight our nation's enemies – not an overriding fear of

casualties. We must confront this issue at the highest levels of leadership if we are to employ airpower against the terrorist threat. By accepting some military casualties in combating terrorism we may limit large amounts of civilian or military casualties caused by terrorists who, if not engaged, will operate unfettered. The U.S. must demonstrate that casualty aversion is not an American weakness to be exploited by anyone.

Notes

¹ Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Summary Report* (Washington, D.C., 1993), 224.

² *Ibid.*, 225.

³ Stephan M. Duncan, "Catastrophic Terrorism" *Reserve Officer Association (ROA) National Security Report*. December 2000, 32.

⁴ *Ibid.*, 33.

⁵ *Ibid.*

⁶ Eric V. Larsen, "Ends and Means in the Democratic Conversation: Understanding the role of Casualties in Support of U.S. Military Operations" (PhD diss., RAND Graduate School, 1996), 320.

⁷ Karl P. Mueller, "Politics, Death, and Morality in US Foreign Policy," *Aerospace Power Journal*, Vol XIV, no. 2 (Summer 2000), 12.

⁸ Major Charles Hyde "Casualty Aversion: Implications for Policy Makers and Senior Military Officers," *Aerospace Power Journal*, Vol XIV, no. 2 (Summer 2000), 20.

⁹ *Ibid.*

¹⁰ Jonathan Foreman, "The Casualty Myth," *National Review*, 3 May 1999, 40.

¹¹ Jeffery Record, "Force-Protection Fetishisms: Sources, Consequences, and (?) Solutions," *Aerospace Power Journal*, Vol XIV, no. 2 (Summer 2000), 9.

Chapter 5

Conclusions

The history of the 20th century has demonstrated the crucial importance of air power to the outcome of land and naval warfare. Now, with the coming of the information age, it may well prove that the history of the 21st century will show that air power proved to equally useful in determining the outcome of the struggle against terrorism.

—Countering The New Terrorism- RAND

Since the end of the Cold War asymmetric threats have become a chief concern for the U.S. The NSS and NMS provides high level guidance regarding this specific type of threat, but as is often the case much more can be learned from studying history and the threat itself. Experts have concluded that the question is not “if” a terrorist attack will occur, but more accurately stated the question is “when”, which is a very real concern. The military must be postured to respond to terrorism and airpower is likely be the weapon of choice. Credit should be awarded to the experts from RAND and their efforts in the book Countering The New Terrorist Threat. It is in that book that guidance is offered to assist the U.S. should the national counterterrorism strategy be revised, and four core elements are addressed to this end.¹

1. Reducing the systemic causes
2. Deterring terrorists and their sponsors
3. Reducing the risk of “superterrorism”
4. Retaliating where deterrence fails

This essay supports efforts in these four areas. A more streamlined, efficient, and lethal interagency process with sound leadership can assist in reducing the systemic causes, while reducing the risk of “superterrorism.” Eliminating the casualty aversion mindset could deter terrorists and their sponsors because U.S. resolve will demonstrate that the loss of life, although tragic, is a price the U.S. is willing to pay when striking terrorist targets. Additionally, airpower can play a role in all four areas although the most visibility lies in item four, retaliating where deterrence fails. Advancements in PGM technology will ensure a more predictable lethal response. The use of airpower and the factors that influence U.S. ability to employ it should be addressed by our leaders as these issues form several of the cornerstones in foundation of U.S. counterterrorism efforts.

Notes

¹ Ian O. Lesser, et al., *Countering The New Terrorism*, 84.

Glossary

ACSC	Air Command and Staff College, Maxwell AFB
AU	Air University
CIA	Central Intelligence Agency
CJCS	Chairman of the Joint Chiefs of Staff
DCI	Director of the Central Intelligence Agency
DOD	Department of Defense
DOS	Department of State
IOP	Instrument of Power
JSF	Joint Strike Fighter
LGB	LASER-Guided Bomb
NCA	National Command Authorities
NSC	National Security Counsel
NMS	National Military Strategy
NSS	National Security Strategy
PGM	Precision Guided Munition
SecDef	Secretary of Defense
TISS	Triangle Institute for Strategic Studies
U.S.	United States
USAF	United States Air Force

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