NATIONAL INSTITUTE FOR PUBLIC POLICY

Deterrence and Al-Qa'ida

Keith B. Payne
Thomas K. Scheber
Kurt R. Guthe
Cynthia L. Storer

October 2012

Deterrence and Al-Qa'ida

By:
Keith B. Payne, Study Director
Thomas K. Scheber
Kurt R. Guthe
Cynthia L. Storer

October 2012

© National Institute for Public Policy, 2012

For additional information about this publication or other publications by the National Institute Press, contact: Editor, National Institute Press, 9302 Lee Highway, Suite 750 • Fairfax, VA 22031 • (703) 293-9181 • www.nipp.org.

© National Institute Press®, 2012

Deterrence and Al-Qa’ida

The authors would like to acknowledge and thank the following experts for their helpful comments on this study: Dr. Shmuel Bar, Director of Studies, Institute for Policy and Strategy, Interdisciplinary Center, Herzliya; Dr. Patrick J. Garrity, Research Associate, Miller Center University of Virginia; Amb. Robert G. Joseph, former Under Secretary of State for Arms Control and International Security; Dr. Susan J. Koch, former Deputy Assistant Secretary of Defense for Threat Reduction Policy; Dr. Thomas G. Mahnken, former Deputy Assistant Secretary of Defense for Policy Planning; Dr. Peter V. Pry, Executive Director, Congressional Task Force on National and Homeland Security; Dr. Lionel Tiger, Charles Darwin Professor Emeritus of Anthropology, Rutgers University; Mr. David J. Trachtenberg, former Principal Deputy Assistant Secretary of Defense for International Security Policy; and Dr. Jessica Glicken Turnley, President, Galistea Consulting Group.

The authors would also like to thank the Smith Richardson Foundation for the support they provided that helped make this study possible.

Table of Contents

Executive Summary ..... **ix**

Deterring Non-State Actors ix

Deterring Core Al-Qa'ida xi

Possible Points of Vulnerability of Core Al-Qa'ida xiii

Elements of an Approach to Deterring Al-Qa'ida xv

I. Introduction **1**

Study Purpose 1

Deterring Terrorists 1

Report Overview 3

II. Deterring Non-State Actors **5**

Case Studies 6

Characteristics of Non-State Actors 7

General Methods Used by States Against Non-State Actors 11

Specific Kinds of Punitive Threats, Denial Measures, and Inducements 12

Record of Deterrence in the Case Studies 15

Summary of Findings From the Case Studies of Conflicts Between States and Non-State Actors 19

III. Strategic Profile for Al-Qa'ida **25**

History 25

The Organization in General 26

Functional Areas 28

Leadership 31

Members 34

Affiliates, Alliances, and State Support 34

Ideology 40

Strategy 42

Operations and Tactics 47

Outlook 48

IV. The Potential for Deterring Al-Qa'ida 49

Deterrence Appears Possible in Principle 49

Potential Al-Qa'ida Vulnerabilities 54

Summary 69

V. Strategy for Deterring Al-Qa'ida 71

Possible Components of a Strategy to Deter Al-Qa'ida from WMD Attacks Against the United States 71

Bottom Line 76

Notes 77

Appendix: A Methodology for Developing Deterrence Strategy A-1

About the Authors

Executive Summary

The purpose of this study is to understand better the sensitivities and vulnerabilities of core al-Qa'ida in order to facilitate U.S. strategies of deterrence intended to prevent acts of terrorism by the group, especially mass-casualty attacks involving the use of weapons of mass destruction (WMD) against the United States. ("Core al-Qa'ida" refers to the leadership and cadre based in the Pakistan-Afghanistan border region.)

Deterring Non-State Actors

The initial part of the study summarizes an earlier analytic review of deterrence in 10 case studies of conflicts between states and non-state actors (NSAs), including terrorist groups. These case studies span more than two centuries and range in time from the conflict between the United States and the Barbary pirates in the early 1800s to more recent conflicts, such as Russia versus Chechen nationalists and Israel versus Hizballah. Each case study was examined to determine whether the NSA was deterred at some point in the conflict and, if so, what NSA vulnerabilities, local conditions, and state measures may have been critical to that outcome.[1]

These case studies provide empirical evidence that commonly held views regarding deterrence of NSAs are mistaken, including:

- NSA leaders cannot be deterred because they are irrational;
- NSAs cannot be deterred because they have no territory or state-based assets that can be held at risk, i.e., "no home address"; and
- if NSAs could be deterred, there should be a universal approach—a template—for deterring this category of adversary.

It is important to understand that, in the past, NSA leaders have been deterred from certain actions on some occasions and under some conditions. In cases where NSAs were deterred, the successful strategies differed significantly from the U.S. Cold War punitive deterrent strategy of holding at risk assets presumed to be of highest value to the Soviet leadership. In the 10 cases examined, deterrence of the NSA was seldom an initial or even explicit state goal. Typically states sought to defeat the NSA and eliminate the threat. In most cases, while elimination of the threat could not be accomplished in a timely manner, state actions toward this goal resulted in NSA leaders changing their behavior in ways that suggest that they were deterred from continuing their preferred course for some period or permanently. States usually suffered through a long and painful learning process to discover that their measures intended to defeat terrorists also held possibilities for deterrence.

States ultimately used a variety of methods in their attempts to deter NSAs. The methods fall into the two principal categories: 1) punishment, both demonstrated and threatened, of those responsible for the actions of the NSA; and 2) denial of NSA objectives. Punitive and denial measures tend to overlap in practice and both contributed to these past deterrent strategies. Following a learning process, states often came upon a workable combination of punitive and

denial deterrent measures. States were able to adapt their strategies to the specific characteristics of the context, cultures, motivations, and decision making of the respective NSAs they confronted.

Punitive deterrent threats included direct threats to NSAs and their leaders, threats to patron or host states, and threats to family members or others that NSA leaders might value. States also threatened or periodically demonstrated the ability to damage valued assets (such as infrastructure, bridges, power plants, etc.) of states providing sanctuary for NSAs in order to coerce these parties into putting pressure on NSA leaders.

The case studies also reveal a wide range of denial measures used against NSAs with deterrent effect. In many cases, the state's primary objective was simply the elimination of the NSA threat or the reduction of state vulnerability to NSA attack. Nevertheless, state efforts to defeat the NSA and limit vulnerability to NSA attack resulted in the concomitant deterrence of the NSA for some purposes and periods of time. Many denial measures can have some obvious overlap with measures intended to create punitive fears. These include: military forays to disrupt NSA operations and force NSA leaders underground; defenses; laws that give greater authority to governments to detect NSA communications and preparations for attacks; and prison policies that keep NSA leaders, once captured and incarcerated, from exercising leadership while behind bars.

In general, denial measures, employed for the purpose of defeating the NSA or limiting the potential damage that the NSA might cause, demonstrated to the NSAs that their actions were more likely to be thwarted, unlikely to cause the intended effect, and that members of the NSA were at increased risk of being captured or killed. At the very least, such defensive measures complicated NSA planning and operations, and thus raised the specter of failure and loss of NSA prestige. The prospect of these types of cost and loss often had a deterring effect on NSAs.

The types of circumstances in which deterrence appears most likely to be effective include the following:

- central leadership and control of the NSA and its operations;
- a level of third-party support or control of the NSA that provides an avenue to influence NSA behavior;
- the NSA operates in territory accessible by the state (no external sanctuary for NSA operatives); and
- the motives and goals of the NSA are not immediate or absolute—there is some time and room for the pragmatism of tactical retreat or compromise.[2]

The observation that deterrence may be the result of actions taken for other reasons (e.g., to defeat the NSA opponent or defend against the NSA threat) is noteworthy. It suggests that states may find important advantages in being opportunistic—observant enough to see the potential for this concomitant deterrent effect in their defensive actions and flexible enough to take advantage of it when possible (at little additional cost).

Given the many differences among NSAs and the varying conditions within which they operate, no single approach to deterrence planning for NSAs will be effective in all cases and uncertainties will remain regarding the functioning of deterrence. However, a tailored approach informed by a hard-won understanding of the unique set of sensitivities in the NSA's decision making has provided the basis for effective deterrence in the past. Generic threats communicated indiscriminately may deter, but a strategy informed by an understanding of the unique leadership target and context appear to have a greater chance of being effective. An appropriately tailored deterrent strategy often involves a mix of denial measures and punitive threats.

Deterring Core Al-Qa'ida

The present study focuses on core al-Qa'ida. While this terrorist organization has been weakened during the past decade, it remains the preeminent terrorist threat to the United States. The group has demonstrated resilience, has sought weapons of mass destruction, and under its new leadership may attempt to demonstrate its continuing relevance through high-profile attacks. In addition, information from those who have left the organization, transcripts of court trials of operatives, accounts of detainee interrogations, captured documents, and a wealth of secondary sources provide valuable insight into past decision making by al-Qa'ida leaders, factors that influenced decisions, and how al-Qa'ida viewed actions by the United States.

A tailored strategy to deter al-Qa'ida terrorism would need to be based on the exploitation of al-Qa'ida vulnerabilities and sensitivities in order to influence the decision calculus of its leaders. Such a deterrent strategy would be designed to exploit al-Qa'ida perceptions of the risks, difficulties, and costs (including the potential financial, political and organizational costs) of mass-casualty attacks. A careful examination of al-Qa'ida's senior leaders suggests that core al-Qa'ida, in principle, is susceptible to deterrent strategies.

Core al-Qa'ida in the past has displayed, and continues to display, characteristics consistent with non-state adversaries which have been deterred. Al-Qa'ida leaders appear to be capable of being pragmatic when compelled to do so; they may be fanatical in their devotion, but they are careful and even cautious planners ("conservative fanatics"). Al-Qa'ida has demonstrated prudence in planning and typically conducts extensive planning, surveillance, and trial runs for complex and important attacks. Some proposed attacks have been rejected as too complex and unlikely to succeed. Al-Qa'ida also has specific long-term objectives, but no apparent, definitive near-term requirement for the realization of those objectives, and its leaders deliberate over and debate proposed attacks and methods to achieve their objectives, specifically weighing the prospective risks, costs, and benefits. These characteristics are key because they suggest that, in principle, there is time and "decision space" for al-Qa'ida to be sufficiently pragmatic for deterrence to operate.

In addition, approval and control of major operations are highly centralized. Al-Qa'ida leaders have displayed sensitivity to the fact that some violent actions by the group have decreased support for al-Qa'ida within the *ummah* (the community of Muslim believers), although the practical implications of this concern are unclear. Key al-Qa'ida leaders may not fear death, but they do expend significant effort to remain alive and in control in order to guide the future course of the organization. While some al-Qa'ida terrorists are ready to die in the execution of attacks,

al-Qa'ida planners clearly seek to minimize the operational risks that might cause attacks to fail. And importantly, al-Qa'ida leaders appear to pay attention to statements and actions by U.S. officials. They watch and listen and include that which they learn in their calculations.

These al-Qa'ida characteristics do not suggest that U.S. strategies of deterrence are certain to succeed against al-Qa'ida. They do, however, suggest that al-Qa'ida, like a number of other NSAs, may be susceptible to well-informed and executed deterrent strategies at some times and for some purposes.

Deterrent strategies considered for al-Qa'ida, including those for deterring mass-casualty attacks with WMD, should include denial measures. These measures would seek to mitigate the consequences of, and raise the costs, difficulty, and risk of failure of a WMD mass-casualty attack. A denial strategy could also be designed to increase the risks and reduce the perceived value from these types of attacks for al-Qa'ida's short- or long-term objectives. These measures would be primarily for defense against attack, with deterrence as a concomitant effect.

Elements of a complementary punitive strategy would seek to make clear that the U.S. response to a mass-casualty attack with WMD would change the nature of the U.S. war on terrorists in ways which would alarm al-Qa'ida leaders, its operatives, and supporters. Instead of the perception that it is "already doing all it can do" to defeat al-Qa'ida, the United States would need to communicate its willingness to take the fight to a much higher level of violence in response to such an attack. Fostering this perception would be helped by the fact that opinion polls show the American public ready to support extreme measures in response to a WMD attack on the United States.[3]

Al-Qa'ida's top leaders are unlikely to be deterred from large-scale attacks by direct threats to their lives. They are already being vigorously pursued and many have been killed. However, these leaders may be sensitive to the threat of long-term, hard incarceration (with its denial of martyrdom) and a U.S. response that puts in jeopardy the continued existence of al-Qa'ida itself and the realization of its long-term goals. Since al-Qa'ida seems to be under no definitive time constraints, U.S. declaratory policy should help al-Qa'ida leaders conclude that a nuclear or other WMD attack against the United States at any given time would result in the final demise of their organization and its vision of a new caliphate (a transnational Islamic state). Their pragmatic deferral of an attack for a significant period of time counts as an attack deterred.

As noted, the study of NSAs concluded that the potential for effective deterrence often was greatest with a combination of denial measures and punitive threats tailored to a particular adversary and situation. In the case of core al-Qa'ida, in principle there are numerous possible points of vulnerability that may be exploited for deterrence purposes by means of such a combination. Some of these points may be exploitable for deterrence of a spectrum of al-Qa'ida actions; others may be credible only for a very narrow set of possible dangers posed by al-Qa'ida. For example, given the existing high level of U.S. military action against al-Qa'ida, a U.S. threat to respond to an attack with essentially no limits is likely to be credible for deterrence purposes only as a response to a mass-casualty attack.

Possible Points of Vulnerability of Core Al-Qa'ida

Seven potential vulnerabilities of core al-Qa'ida might be exploitable for the purpose of deterring a mass-casualty attack against the United States. They are: 1) alienation of the *ummah*; 2) loss of support from specific groups; 3) demoralization within the organization; 4) organizational fissures; 5) death or imprisonment of al-Qa'ida members; 6) operational failure; 7) and U.S. retaliation.

Alienation of the Ummah

Al-Qa'ida needs the support of the *ummah* for its long-term project of forcing the United States to withdraw from the Muslim world, overthrowing "apostate" regimes in Arab countries, and establishing an Islamic caliphate. Although the al-Qa'ida leadership remains intent on acquiring and using WMD, it must take into account the possible disadvantage that segments of the *ummah* would be alienated or harmed by indiscriminate attacks involving the use of WMD. However, al-Qa'ida leaders have displayed a tendency to rationalize their controversial actions after the fact, often using extreme interpretations of Islamic tenets.

Loss of Support From Specific Groups

Al-Qa'ida depends on the support of Pashtun tribes and extremist groups to retain the safe haven in the Pakistan-Afghanistan border region from which it mounts external attacks. For financial support it relies on contributions from wealthy individuals in Saudi Arabia and other Gulf countries, donations to mosques and charitable groups that have been diverted to its coffers by sympathetic clerics and administrators, proceeds from criminal activities, money from affiliates, and, more recently, even payments from its recruits. Finally, to acquire a weapon of mass destruction, al-Qa'ida would likely need the help of various "facilitators"—suppliers, smugglers, insiders, middlemen, technical specialists, inter alia. Loss of support from these sources could deny or further endanger the operational base from which al-Qa'ida would plan and prepare for a mass-casualty attack, impede the acquisition of a weapon of mass destruction, and make it more difficult to secure the funding needed to underwrite a WMD attack, all of which could help deter al-Qa'ida from undertaking such an operation.

Demoralization Within the Organization

Effective counterterrorism operations against a terrorist group, especially over a prolonged period, can engender a climate of apprehension, isolation, frustration, and dissension among its members. This climate can give rise to defections from the organization and the demoralization of those who remain. In addition, disillusionment with strategy and tactics, lack of respect for the leadership, differences over the conduct of operations, disputes over money, and ties with family and outside friends have caused operatives to quit. Defections and demoralization could hamper the viability of al-Qa'ida in general and its ability and willingness to carry out a mass-casualty attack.

Organizational Fissures

Strategic, organizational, and ethnic divisions within al-Qa'ida could hamper efforts to plan, prepare for, and prosecute a mass-casualty attack. There might be steps the United States could take to exacerbate these divisions as part of a larger strategy for deterring an attack. Doubts within the ranks about the competence of the leadership and the wisdom of a mass-casualty attack could make such an operation more difficult to undertake. In addition, disputes over compensation and financial malfeasance have been sources of trouble within al-Qa'ida;

measures to constrain funds for al-Qa'ida's use could be a catalyst for disputes over how best to use scarce resources. The danger of financial corruption, whether real or imagined, could be an obstacle to pursuit of a nuclear or radiological weapon.

Death or Imprisonment of Al-Qa'ida Members

The leaders of al-Qa'ida appear to value their own survival as much for the sake of the organization and its cause as by the instinct for self-preservation. While they prefer life to death, they also appear to prefer death and martyrdom to indefinite incarceration. Mid-level operatives and foot soldiers likewise seem to fear long imprisonment more than death in battle.

Operational Failure

With a successful mass-casualty attack, al-Qa'ida leaders would hope to inflict devastating economic pain as well as human suffering on the United States, pressure the United States to back off from its intensified military operations against the group, promote domestic opposition in the United States to American military presence in the Muslim world and support for "apostate" regimes, and increase the status and strength of the organization. Al-Qa'ida fears mission failure because an unsuccessful operation—were the failure known to the world—could harm al-Qa'ida in numerous ways. To avoid these adverse consequences—and, of course, to meet attack objectives—al-Qa'ida devotes great care to planning and preparing for its operations, and requires planning for high probability of success. Consequently, measures the United States can take to increase the risk of failure and complicate al-Qa'ida's planning should help to deter a mass-casualty attack and other attacks in general. The U.S. nuclear detection system, for example, has the potential to exert a concomitant deterrent effect as part of its primary mission of defending against terrorist attempts at smuggling radiological or nuclear weapons or materials into the country.

U.S. Retaliation

If feasible, the most straightforward way to deter a mass-casualty attack employing WMD would be to threaten military counteraction that promised losses far exceeding what al-Qa'ida hoped to gain from the attack. In principle, this threat would have to rise well above the current level of U.S. effort to defeat al-Qa'ida in order to force a perception of greater risk in al-Qa'ida's decision-making calculus. Past experience (e.g., internal debates before the 9/11 attacks) indicates the danger of devastating retaliation would enter into the calculations of the al-Qa'ida leadership. Core al-Qa'ida has global interests, while those of affiliates and other associated groups are predominantly local. These differing interests could lead the affiliates to discourage the core from launching a mass-casualty attack if they thought they would pay an extreme price. The questions in this regard are: what level and type of loss must be threatened, against whom, and can such threats be made credible?

A threat to exterminate the organization, subject to few, if any, constraints on the application of U.S. military power, probably would be necessary (though perhaps not sufficient) for a punitive strategy intended to deter al-Qa'ida from attempting a mass-casualty attack involving WMD. If so, a virtually unlimited threat to eliminate the organization promptly and decisively would likely need to be made explicit. Ambiguous formulations—holding terrorists and their allies "fully accountable," promising "overwhelming retaliation" and "unacceptable costs"—may not convey the threat to change the nature of the current war. A credible threat of elimination, for example, could require an apparent U.S. willingness and ability to intensify the targeted-killings campaign and to act decisively to eliminate al-Qa'ida's safe havens in western Pakistan.

Elements of an Approach to Deterring Al-Qa'ida

Based on the results of the previously cited historical review of deterrence vis-à-vis NSAs, it is reasonable to conclude that deterrence can be applied successfully to a terrorist organization for some purposes and at some times. Further, an examination of core al-Qa'ida suggests a variety of specific points of possible sensitivity and vulnerability that could be exploited for U.S. deterrence purposes. The following measures and threats may provide the most promising basis for a combined denial and punitive approach to deterring al-Qa'ida from attempting mass-casualty attacks with WMD.

- Disruptive incursions to deny leaders a safe haven from which to plan and train can increase the degree of difficulty (i.e., denial effect) for complex, mass-casualty attacks, while at the same time demonstrating to lower-level operatives the possibility that they will spend the rest of their lives incarcerated instead of being glorified as martyrs (i.e., punitive effect).

- Actions that threaten punitive measures for entities and individuals that supply or support al-Qa'ida can also have a denial effect by reducing the availability of critical materials for mass-casualty attacks with WMD and increasing absolute costs to al-Qa'ida.

- Denial measures, such as defenses, increase the difficulty of attacks and the likelihood of failure. Failure can result in the capture of operatives as well as the seizure of materials planned for the attack. Operatives would face the prospect of lengthy prison sentences, and suppliers and supporters could fear their involvement would be revealed and lead to their punishment.

- Punitive measures that promise an extremely high level of U.S. retaliation—to change the nature of the conflict—in response to an attempted or successful WMD mass-casualty attack could cause al-Qa'ida leaders and sponsors to question the timing for such an attack and whether it might in fact result in fatal harm to the group and its strategic aims. Convincing al-Qa'ida leaders to defer such an attack should be considered successful deterrence—even if only temporary.

- Efforts to encourage moderate Islamic leaders to speak out on religious precepts against mass-casualty attacks, including nuclear terrorism, perhaps could cause al-Qa'ida to fear that such an attack would create opposition from, and divisions within, the *ummah*.

Deterrence is not a science and uncertainties in its functioning are unavoidable in the best of circumstances. Planning strategies of deterrence against terrorist organizations pose unique challenges. Given the basic characteristics of the al-Qa'ida terrorist organization, it is not certain any one of the possible al-Qa'ida points of vulnerability can, in practice, be exploited predictably for the purpose of deterrence. Nevertheless, given the historical record of states' efforts to deter NSAs, pressures applied to combinations of the vulnerabilities may offer the United States the basis for a composite denial and punitive approach to a strategy intended to deter al-Qa'ida attacks. The more informed U.S. planners are with regard to these points and how they may be exploited for this specific case, time, and context, the more likely the United States is to find a tailored approach to deterrence that is effective.

I. Introduction

Study Purpose

This study examines the deterrence of al-Qa'ida. The focus is on deterring the core of that terrorist group from using weapons of mass destruction (WMD) in attacks against the United States that could cause mass casualties. Regarding the definition of terms, "core al-Qa'ida" is the leadership and cadre in the Pakistan-Afghanistan border region. "Weapons of mass destruction" include those that are chemical, biological, radiological, or nuclear. "Mass casualties" here refers to killed or injured numbering in the thousands or more. The deterrence aim involves discouraging the acquisition as well as the use of WMD. While deterrence of WMD attacks is the focus, a number of the findings from the study also could bear on the deterrence of other terrorist acts by al-Qa'ida.

The study builds on previous work done by the National Institute for Public Policy (NIPP). For more than two decades, NIPP has taken an approach to deterrence that follows the adage "know the enemy" in fashioning a suitable deterrent to a particular threat.[4] Deterrence depends to a large extent on the values, beliefs, motives, perceptions, risk propensity, and decision making of the specific individual or group to be prevented from acting. Theoretical and broad empirical analyses of deterrence have merit, but a practical deterrent strategy should be tailored to a specific adversary, threat, and set of circumstances. An overview of the general approach NIPP uses in its deterrence analyses, including this study, can be found in the appendix.

For the present study, NIPP applied its analytic approach to the problem of deterring a specific adversary for a specific purpose. Al-Qa'ida was selected as the adversary to be analyzed. As noted, the principal deterrent objective was to prevent a WMD attack by that group against the United States. In line with the task, the report offers findings that could be used to inform a deterrent strategy fashioned to meet that objective.

Deterring Terrorists

Despite recent successes against al-Qa'ida, including the killing of its longtime leader Osama bin Laden and other key personnel, the terrorist organization remains, according to the June 2011 *National Strategy for Counterterrorism*, "[t]he preeminent security threat to the United States." That threat includes the danger of a mass-casualty attack against the United States because al-Qa'ida has "engaged in efforts to develop and acquire weapons of mass destruction."[5]

A number of factors combine to make the threat of an al-Qa'ida WMD attack real and urgent: the group's persistent pursuit of such weapons;[6] the potentially catastrophic consequences of even a single successful attack; and the difficulty of preventing an attack by a determined, well-organized terrorist organization bent on inflicting enormous civilian casualties.

These same factors also make strategies of deterrence against terrorism extremely important. When effective, deterrence is uniquely efficient for addressing highly lethal threats. Deterrence

essentially is a strategy to cause an opponent to exercise self-control: U.S. declarations and actions are designed to lead the opponent to decide against taking the action the United States seeks to prevent. Influencing an opponent's decision making through deterrent strategies can be much less costly and much more effective than efforts to prevent an attack through comprehensive defense, mitigate the consequences of an attack that does occur, or destroy an opponent before an attack can be carried out. The advantages of effective deterrence can be of critical importance if a single attack and single failure of defense could result in a grave disaster from which recovery would be arduous and expensive. This is why the great Chinese strategist Sun Tzu identified effective strategies of deterrence as representing greater success than "achieving victory in every battle."[7]

In the United States during the Cold War, deterrence theory and related defense strategy focused on the Soviet Union. Many in and out of government viewed deterrence as well understood and relatively easy to achieve with predictable effect. In truth, attempting to affect an opponent's decision making for effective deterrence always presents unique challenges, most obviously in the need to understand the adversary and communicate intent and threats. There are, however, some particular challenges in any attempt to fashion effective strategies of deterrence as part of the current war against terrorist organizations.

Indeed, it is commonplace to hear the claim that terrorists cannot be deterred. The logic behind this claim usually is that: terrorists are irrational or welcome death, and therefore deterrent threats cannot alter their decision making; or terrorist organizations are not states with defined territories and populations, and thus have no "return address" to be threatened for the purpose of deterrence.

In contrast to the view that terrorist organizations are not deterrable, this study explains in some detail why and how terrorist organizations in general may be susceptible to deterrent strategies. In doing so, the study draws on the previously mentioned examination of cases in which states successfully confronted a spectrum of highly violent non-state actors. This historical analysis provides a valuable point of departure for considering best practices for deterring terrorist organizations and how U.S. deterrent strategies might incorporate those practices to prevent attacks by al-Qa'ida.

Nevertheless, there are some considerations distinctive to the deterrence of terrorist organizations. For example, deterrent strategies tend to involve some level of withheld threat to discipline an opponent's decision making; there is an implicit or explicit understanding between the United States and the opponent that provocations which cross designated U.S. redlines will lead to unacceptable consequences for the opponent. That understanding is the mechanism expected to move the opponent's decision making in the benign direction preferred by the United States. In the context of ongoing conflicts with terrorists, however, those non-state adversaries may believe the United States already is doing its utmost to destroy them, and thus that there is in reality no withheld threat the United States could unleash in the event they crossed a deterrent redline. If, from the terrorist's perspective, there is no possible withheld U.S. threat of greater cost and intolerable consequence, deterrent strategies are infeasible in principle. (This is one of the questions taken up later in the report.)

Report Overview

The next chapter reviews previous work by NIPP on the deterrence of non-state actors, including terrorist groups. The diverse set of case studies analyzed in that work revealed the characteristics that influence whether a non-state actor can be swayed by deterrent threats, the contextual circumstances conducive to deterrence, and the tools and tactics states have applied in deterring non-state adversaries. These lessons inform the subsequent analysis of the problem of deterring core al-Qa'ida.

A careful understanding of the adversary is essential to a successful deterrent strategy. Thus, the third chapter presents a "strategic profile" of al-Qa'ida, the non-state actor that is the subject of this report. The profile outlines al-Qa'ida's development, organizational structure, key personnel, its animating ideology (or political theology), strategy, operations, and tactics.

Based on the information in the profile, the initial part of the fourth chapter addresses the question of whether al-Qa'ida has characteristics that would make deterrence a potential option for preventing a WMD attack by the terrorist group. Because deterrence does appear possible in principle, the remainder of the chapter looks at several potential vulnerabilities of al-Qa'ida that might be exploited as part of a deterrent strategy. The types of vulnerabilities examined correspond with those identified in the study of other non-state actors. The discussion of possible leverage points includes empirical evidence on the behavior of al-Qa'ida supplementary to that found in the strategic profile.

Given the profile of al-Qa'ida, the apparent susceptibility of the group to deterrence, and the vulnerabilities that might be leveraged for deterrent effect, the concluding chapter suggests some general strategies that might be employed for the purpose of deterring a WMD attack by the terrorist organization. As with the findings of the earlier non-state actor study, the suggestions encompass both deterrence by punitive threat, which promises penalties greater than the expected gains of an attack, and deterrence by denial, which makes expected gains appear too hard, costly, or risky to achieve.

II. Deterring Non-State Actors

Summarized here are the findings from a previous National Institute study of deterrence in conflicts between states and non-state actors (NSAs).[8] The goal is to identify potential applications of these findings to the problem of deterring al-Qa'ida. In this earlier study, 10 case studies of conflicts between states and NSAs were researched and analyzed. The case studies span more than two centuries and range from the conflict between the United States and the Barbary pirates in the early 1800s to more recent conflicts, such as Russia versus Chechen nationalists and Israel versus Hizballah. Each case study was examined to determine whether the NSA was deterred at some point in the conflict and, if so, what conditions and which measures were conducive to that outcome.

This summary of conflicts between states and NSAs describes pertinent factors from those case studies, including the relevant characteristics of the NSAs. Characteristics include:

- the organizational nature of the NSA;
- whether decision making is centralized or decentralized;
- the geographical location of the NSA in relation to its state opponent; and
- whether decision making or control within each NSA is influenced by one or more third parties.

Also discussed are the primary motives for the hostile actions of each NSA as well as the various methods used against its state opponent and, in turn, the methods used by each state to deter or combat the pertinent NSA. The methods used by states are grouped into three broad categories: threatened punishment, denial of goals, and inducements.

The study investigated the feasibility of, and possible best practices for, deterring non-state actors. "Deterrence" involves threats or other measures that discourage an adversary from undertaking an action by promising offsetting adverse consequences, whether those are the punishment of retaliation, the failure to achieve the objectives of the action, the need to adopt costly countermeasures to increase the likelihood of success ("cost" being broadly defined), or some other daunting penalty. While the concept of deterrence by threat of punishment is familiar, that of deterrence by threatening to deny success, or make it prohibitively costly, is not as well known. Yet deterrence by denial has a long pedigree. The distinction between deterrence by threat of punishment and deterrence by denial is at least 50 years old.[9] During the Cold War, the notion of deterrence by denial was incorporated in a number of high-level U.S. strategy documents.[10] The Defense Department's post-Cold War conceptual framework for deterring opponents recognizes the value of deterrence by denial.[11] And the current U.S. strategy for counterterrorism points to the value of defensive measures for deterrence by denial.[12] Both deterrence by threat of punishment and deterrence by denial have played, and can continue to play key roles in preventing attacks by terrorist groups and other non-state actors.

In all the cases examined, the states sought to eliminate the threat or to compel the NSAs to change behavior in some way. In a number of cases, the methods used by the state resulted in

the NSA retaining the ability to continue hostile action against the state, but refraining from doing so. For such cases, deterrence was operative—at least for a time.

In light of the findings of the NSA study, many prevalent views of deterrence and non-state opponents are inaccurate. Commonly held views regarding deterrence of NSAs include the following:

- NSA leaders cannot be deterred because they are irrational;
- NSAs cannot be deterred because they have no territory or state-based assets that can be held at risk; and
- if NSAs could be deterred, it should be possible to devise a universal approach—a template—for deterring this category of adversary.

Results from the case studies contradict the conventional wisdom. NSA leaders have been deterred. In cases where NSAs were deterred, this was often done through methods that differ significantly from the Cold War punitive deterrent strategy of holding at risk the assets presumed to be of highest value to the adversary.

For the 10 case studies examined, deterrence of the NSA was seldom an explicit or sole goal of states. Typically states sought to defeat the NSA and eliminate the threat directly. In some cases, even though elimination of the threat could not be accomplished in a timely manner, actions by states resulted in NSA leaders changing their behavior in ways that suggest that they were deterred from continuing their preferred course. Sometimes deterrence of the NSA was operative for only a limited time and a new round of aggressive actions by the NSA followed changes in contextual factors or erosion in the effectiveness of state actions contributing to deterrence.

Case Studies

Listed below are the case studies reviewed in the NSA study.

- United States versus Barbary Regencies (1783-1805)
- United States versus Mexican Revolutionaries (1915-1917)
- Britain versus Irish Republican Army (1919-1921)
- Britain versus Shi'a and Kurdish Groups in Mesopotamia (1919-1932)
- European States versus Euro-terrorists (1970s-1980s)
- Soviet Union versus Palestine Liberation Organization (PLO) and Hizballah (1985)
- Japan versus Aum Shinrikyo (1989-1995)
- Israel versus Hizballah (1985-2006)
- Israel versus Fatah and Hamas (2000-2006)
- Russia versus Chechen Separatists (1994-2006)

Each case study characterizes the nature of the conflict, the leaders of the NSA, the methods used by the state against its non-state opponent, and the results of those methods.

As noted, the case studies span roughly 200 years and involve 10 different conflicts between states and NSAs. They range in duration from less than a year to over two decades and cover

many regions of the world—North America, Africa, the Middle East, Europe, the Caucasus, and Northeast Asia. From these varying regions come a number of different cultural influences and contextual factors that are important in understanding the deterrence dynamics of each conflict. While each of these case studies includes some unique factors, they all contribute to the potentially useful lessons that follow and are used subsequently in the present study to inform the analysis of deterring al-Qa'ida.

Characteristics of Non-State Actors

Organizational Arrangements

Characteristics of an NSA, such as organizational structure, cultural factors, location, proximity to the territory of the state adversary, and relationship with host or patron states can affect the potential feasibility and practicality of deterrence. Is the NSA centrally organized with a well-defined chain of command, or is it decentralized with numerous autonomous cells? Is the NSA dependent on one person for its leadership and inspiration or is the organization resilient to the elimination of key leaders? These distinctions play an important role in the ability of a state to apply deterrent pressure to the appropriate nodes of power of the non-state adversary.

Operational Area

The physical location of the NSA vis-à-vis its state opponent is an important consideration. Some case studies involved an NSA located within the territory of its state adversary, while other case studies involved an NSA that was located in state-occupied territories or external to the state with which it was in conflict. If the NSA is located within the adversarial state's territory, it may be easier for the state to employ effective denial measures, gain key information about the NSA, and make credible punitive threats. The fact that an NSA resides within the territory of its state opponent allows the state to influence directly the environment within which the NSA must operate. At the same time, states combating NSAs internally may be constrained by concerns over injuring innocent citizens via punitive or disruptive police actions against NSA groups. The state may be more willing to risk collateral damage from an action against the NSA if the NSA resides within another state that permits the NSA to operate from sanctuaries within its borders. In addition, the state may have less opportunity to gather the pertinent intelligence on a group operating outside of its territory, thus limiting its knowledge of how best to threaten or punish the necessary nodes of the NSA reliably. The state may also have legal restrictions and other limitations affecting its options vis-à-vis an NSA located within its borders. All of these factors may affect the avenues through which intelligence may be gathered and deterrent strategies put into practice.

Host and Patron States

An important characteristic to consider is whether the NSA has an identifiable host or patron state that is complicit in the behavior of, and perhaps the continued existence of, the NSA. For example, Lebanon is the *host state* for the NSA, Hizballah. The weak government of Lebanon has allowed Hizballah to function within its territory and, over time, representatives of Hizballah have been integrated into the Lebanese government. Over the years, the Israelis have sought to bring pressure against Hizballah indirectly by pressuring the government of its host state, Lebanon, to take stronger action to restrain Hizballah.

A *patron state* is one that provides leadership, direction, or support, including political, financial, and material support to an NSA. It may also provide sanctuary to an NSA, including some form

of protection from punitive threats. An example of this can be found in Syria, which has allowed Palestinian terrorist leaders to reside and operate from its territory. This form of sanctuary complicates (although it does not remove) Israeli options for directly striking terrorist leaders.

Iran serves as a patron to Hizballah. It supplies Hizballah with intelligence, arms and funds, and directs much of its activities and strategic objectives. This external support and leadership make it difficult for the Israelis to cut off funding, arms, and material to Hizballah and complicates Israeli options for punitive action out of concern over escalation to a larger war that could include Iran and Syria. Consequently, the roles of patron and host states are very important when identifying and evaluating the key decision makers behind the behavior of an NSA, the types of threats that may provide greatest leverage, and the channels of communication through which those threats might be conveyed.

For some of the case studies, the NSA had neither a host state nor a patron to be considered in bringing pressure to bear on the NSA leaders. For example, the Irish Republican Army in 1919-1921 operated independently of influence by a host or patron state. At the other end of the spectrum, some NSAs had both a host and one or more patrons that had to be considered. For example, in the case study involving Israel versus Hizballah, the Israeli government was confronted with the challenge of bringing pressure to bear against Hizballah leaders, the leadership of the host state in Lebanon, and Hizballah's Syrian and Iranian sponsors.

Figure 1 provides an overview of characteristics of the NSAs in the case studies.

Characteristics of NSA		Case Studies of Conflicts Between State and Non-State Actors (NSA)									
		U.S. versus **Barbary Regencies** (1783-1805)	**U.S.** versus **Mexican Revolutionaries** (1915-1917)	**Britain** versus **Irish Republican Army** (1919-1921)	**Britain** versus **Shi'a and Kurdish Groups in Mesopotamia** (1919-1932)	**European States** versus **Euro-Terrorists** (1970s-1980s)	**USSR** versus **PLO/ Hizballah** (1985)	**Japan** versus **Aum Shinrikyo** (1989-1995)	**Israel** versus **Hizballah** (1985-2006)	**Israel** versus **Fatah and Hamas** (2000-2006)	**Russia** versus **Chechen Separatists** (1994-2006)
Organizational Structure	*Centralized Leadership*	X	X	X		X	X	X	X	X (Hamas)	X (94-96)
	Decentralized Leadership				X					X (Fatah)	X (99-06)
NSA Region	*North America*		X								
	Europe			X		X					
	North East Asia							X			
	Caucasus										X
	Middle East				X		X		X	X	
	North Africa	X									
NSA Proximity to State	*Internal: On Territory of State*			X		X		X			X
	External: Adjacent to State		X						X	X	
	External: Separated from State	X			X		X				
NSA Patron / Allies	*No Patrons/Allies*		X	X	X	X		X			X
	One or More Patron/Ally	X					X		X	X	

Figure 1. Matrix of Characteristics of Non-State Actors

Non-State Actor Motives and Methods

Motives. If a state wishes to deter the leaders of an NSA, it will be important to understand the motives and goals of the NSA leaders (as well as the motives of the host state and patrons, if applicable). The NSAs in the case studies were in conflict with states that typically possessed superior resources. Leaders of these NSAs often were motivated by a combination of factors. A few were motivated by economic gain or prestige (e.g., the Barbary regencies versus the United States). Others sought to correct a perceived injustice, such as the inability to govern or freely express the cultural identity of a minority (e.g., a violent group of Basque separatists known as the Homeland and Freedom organization, the ETA). Still others sought political power; some (e.g., European terrorists such as the Red Brigades in Italy and the Red Army Faction [RAF] in Germany) wished to ignite a revolution and overthrow the existing political order, while Hizballah (in Lebanon) and Pancho Villa (in Mexico) worked to acquire a place of influence within the government on whose territory they operated.

Religion, in combination with other motivating factors, played a role in several of the case studies. For example, Shi'a and Kurdish groups in Mesopotamia were motivated in part by a fusion of political and religious factors. The Barbary regencies that included Tripoli were Islamic; they considered ships from non-Muslim countries to be fair game and lucrative targets for their piracy. In Japan, Aum Shinrikyo professed religious motivations as an element in its desire to overturn the existing social and political order and replace it with a visionary one. Hizballah is motivated by its Islamic roots as well as its opposition to Israel, the desire to gain political power within Lebanon, and its service to its state sponsors (patrons).

Methods. In the cases examined, NSAs employed a spectrum of methods (hostile actions) against state opponents to achieve their goals. These methods included: attacks on civilians within, and external to, the state; attacks on commerce; attacks on military forces; attacks on state leaders; and kidnappings or hijackings. In almost all of the cases, the NSAs engaged in various kinds of attacks on civilians or state leaders. In some cases, such attacks were intended to serve a strategic goal. For example, Irish Republican Army (IRA) leader Michael Collins used attacks on civilians and constabulary forces in order to provoke an overreaction by the British and thereby unite the Irish populace behind a struggle for Irish independence and exploit the moral qualms of British politicians. In other case studies, attacks against citizens of the state were carried out for tactical gains. For example, the Red Army Faction kidnapped prominent civilians in West Germany in order to exchange them for imprisoned RAF leaders.

The motives of and methods used by each NSA affected the types of measures each state considered to defeat or deter the group in question. Methods used by an NSA will likely influence how willing a state will be to pursue deterrence or, in contrast, if the state will instead feel compelled to destroy and eliminate the group. For example, both West Germany and Italy ultimately dealt with their terrorist problems in the 1970s with an expansion of police powers that had been initially opposed by their citizens as a rollback of civil liberties. Such sweeping government action was necessary in part because softer measures like traditional policing and seeking accommodation with the terrorists had proven unable to stem the violence. Over time, as the tactics of the Red Army Faction in West Germany and the Red Brigades in Italy became more violent, the citizens in those countries became more supportive of a stronger role by the government in confronting terrorists. Similarly, in the Russia-Chechen case, outrage over the Chechen terrorist bombing of Russian civilian apartment buildings in 1999 enabled Moscow to

undertake significant repressive and punitive actions during the subsequent reoccupation of the breakaway Russian territory.

An understanding of NSA motives and methods can also, as in the case of the 1920s IRA, provide important indicators whether negotiations can have a role in achieving a settlement. Both the IRA and Britain proved willing to make serious concessions and the IRA was willing and able to enforce the agreement in Ireland. A negotiated agreement was feasible because the IRA of that time was under the central authority of Michael Collins, who had motives and goals that facilitated pragmatism. This is in contrast to the Israeli experience with Yasir Arafat's Fatah, which was not centrally controlled, appeared unable to enforce its will on other Palestinian factions or its own subordinate warlords, and was further constrained in what it could do by the activity of the more extreme Palestinian faction, Hamas, which continued to endorse violence and adhere to its declared goal of the elimination of the state of Israel.

Figure 2 provides a summary of primary motivations of NSAs and the methods used by each as documented in the case studies.

NSA Motives and Methods Used		Case Studies of Conflicts Between States and Non-State Actors (NSA)									
		U.S. versus **Barbary Regencies** (1783-1805)	**U.S.** versus **Mexican Revolution-aries** (1915-1917)	**Britain** versus **Irish Republican Army** (1919-1921)	**Britain** versus **Shi'a and Kurdish Groups in Meso-potamia** (1919-1932)	**European States** versus **Euro-Terrorists** (1970s-1980s)	**USSR** versus **PLO/ Hizballah** (1985)	**Japan** versus **Aum Shinrikyo** (1989-1995)	**Israel** versus **Hizballah** (1985-2006)	**Israel** versus **Fatah and Hamas** (2000-2006)	**Russia** versus **Chechen Separatists** (1994-2006)
NSA Motives	*Economic Gain*	X	X								
	Influence/ Prestige	X	X				X				
	Separatism			X		X (ETA)					X
	Opposition to Occupation			X	X				X	X	
	New Order					X		X			
	Political Power		X						X		
	Religion	X						X	X	X (Hamas)	X (99-06)
NSA Methods	*Attacks on Civilians in State*		X	X		X		X	X	X	X
	Attacks on Civilians External to State								X		
	Attacks on Commerce	X									
	Attacks on Military Forces	X	X	X	X				X	X	X
	Attacks on State Leaders					X		X			
	Kidnappings/ Hijackings	X	X			X	X		X	X	X

Figure 2. Matrix of Motives and Methods Used by Non-State Actors

General Methods Used by States Against Non-State Actors

The case studies document a wide variety of methods used by states to defeat or deter NSAs. The methods fall into two principal categories: 1) punishment (both demonstrated and threatened) of those responsible for the actions of the NSA; and 2) denial of NSA objectives. Both methods played important roles in influencing the behavior of the NSAs examined in the case studies. In addition to threatened punishment and denial, the case studies provide examples of conflicts in which states complemented these deterrent strategies with inducements to deal with NSAs. Punitive and denial threats may overlap in practice, but they are discussed separately.

Threatened Punishment

Threatened punishment is typically directed at an adversary's leadership and at assets highly valued by the leadership. The goal is to link the prospect of punishment to a particular type of aggression to try to influence the NSA's cost-benefit calculations and thereby its decision making. The case studies provide examples of punitive threats made by states against NSA leadership, host or patron states, and valued assets of the NSA, its host, or its patron. Threatening the NSA itself may be regarded as a direct deterrent strategy; threatening that NSA's host or patron in the expectation that it, in turn, will put pressure on the NSA may be regarded as an indirect deterrent strategy. In most of the NSA cases examined, punitive threats alone were not sufficient for the desired deterrent effect.

Denial Measures

The ability to deny an adversary its goals—whether the goals are political, territorial, material, or other—has been a long-standing element of U.S. deterrent strategies against states. The case studies illustrate that denial measures play a very important role in conflicts with NSAs. Measures taken by states to deny an NSA its objectives have included defensive measures, anti-terrorist laws, establishment of specialized response capabilities to counter NSA tactics (e.g., commando units for hostage rescue), military operations to disrupt NSA activities, and refusal to negotiate with NSAs. Denial methods were used by states to defend against NSA threats, cause attrition of NSA capabilities, and reduce the consequences of NSA attacks. Although not often fully successful for these purposes, such measures had an important—if occasionally unexpected—concomitant deterrent effect. At times, these measures combined to convince NSA leaders that hostile acts would not achieve the desired effect or would prove too difficult, too dangerous, or too costly.

Inducements

In the majority of case studies examined, states combined some form of inducement along with punitive and denial deterrent measures to help bring about a change of behavior by the NSA. The effectiveness of inducements for this purpose was dependent upon the NSAs' motives, goals, and willingness to accept tactical or strategic conciliation. NSAs with limited demands and goals (such as the IRA in 1921 and the Barbary regency of Tripoli in 1805) were more amenable to a negotiated settlement than NSA leaders with more radical goals, such as the elimination of the state opponent (e.g., Hamas).

States often came upon a workable combination of deterrent measures and inducements following a long and painful learning process. The case studies provide numerous examples of

states devising strategies roughly suited to specific characteristics of the context, culture, motivations, and decision-making process for each NSA.

Specific Kinds of Punitive Threats, Denial Measures, and Inducements

The chart below summarizes the methods used by states against their non-state adversaries for each of the case studies. The discussion that follows describes more specific kinds of each method used to influence the behavior of NSAs.

Methods Used by State against NSA		Case Studies of Conflicts Between States and Non-State Actors (NSA)									
		U.S. versus **Barbary Regencies** (1783-1805)	**U.S.** versus **Mexican Revolutionaries** (1915-1917)	**Britain** versus **Irish Republican Army** (1919-1921)	**Britain** versus **Shi'a and Kurdish Groups in Mesopotamia** (1919-1932)	**European States** versus **Euro-Terrorists** (1970s-1980s)	**USSR** versus **PLO/ Hizballah** (1985)	**Japan** versus **Aum Shinrikyo** (1989-1995)	**Israel** versus **Hizballah** (1985-2006)	**Israel** versus **Fatah and Hamas** (2000-2006)	**Russia** versus **Chechen Separatists** (1999-2006)
Punishment	*Leadership*	X	X	X		X	X		X	X	X
	Noncombatants/ Infrastructure	X		X	X		X		X		X
	Military Escalation	X	X	X					X		
	Host		X						X		
	Patron/Allies	X					X		X	X	
Denial	*Disrupt Operations*		X	X		X			X	X	X
	Eliminate Sanctuary					X (ETA)			X		X
	Defenses	X							X	X	
	Legal Authorities			X		X					X
	Prison Policies					X					
	Refusing to Negotiate for Hostages					X					X
	Anti-Kidnapping/ Anti-Hijacking Units					X					X
Inducements	*Limited Autonomy/ Self-Rule*			X	X	X (ETA)				X	X (99-06)
	Prisoner Release/ Amnesty Policies				X	X					X (99-06)
	Restraints		X						X		
	Other Concessions	X					X				

Figure 3. Matrix of Methods Used by States Against Non-State Actors

Punitive Threats for Deterrence

Punitive threats include: direct threats to NSAs and their leaders; threats to patron or host states; and threats to family members or others valued by NSA leaders. States also threatened or periodically demonstrated the ability to damage valued assets (such as infrastructure, bridges, and power plants of patron or host states) in order to put pressure on NSA leaders in an indirect manner. Examples of punitive actions employed in the case studies include the following:

- Israeli military operations into Palestinian territory often were conducted directly in response to terrorist acts. These incursions brought pressure to bear on leaders of the Palestinian Authority and disrupted the activities of Palestinian militants.
- Israel attempted to influence Hizballah by pressuring Lebanese civilians (e.g., attacks on infrastructure resulting in the creation of refugee flows). This tactic appears to have been unsuccessful, in part because Hizballah, as the creature of Iran, was less beholden to its Lebanese host government, its patron, Syria, or the Lebanese population.
- The Soviet Union is reported to have threatened to punish harshly those involved in the 1985 kidnapping of its diplomats and intelligence officers in Beirut (through demonstrated willingness to murder and mutilate family members) and their NSA sponsor, Iran (via direct attack). The timing of the release of the hostages suggests that the threat of a nuclear missile attack reportedly made against Iran may have been the lever that moved Hizballah leaders.
- The British, both in their "counter-atrocities" against the IRA and their strategic bombing of civilians in Mesopotamia, demonstrated that democracies can at times adopt very brutal measures to combat non-state opponents. These punitive strategies produced some success in changing NSA behavior but, in both case studies, ultimately turned elite opinion in Britain against London's policies.
- Targeted killings of NSA leaders and decapitation of NSA organizations were used by states in numerous case studies with varying effect.

The case studies demonstrate that punitive deterrent threats are available to states willing to use them and that such direct pressure on NSA leaders or indirect pressure via patrons can be effective. However, these measures alone have had mixed success of limited duration. The case studies provide ample evidence of the need for denial measures, used in combination with punitive threats, to deter hostile actions more effectively and protect citizens of the state.

Denial Measures and Deterrence

Measures to deny NSA objectives and complicate operations can also make useful contributions to deterrence**.** The case studies catalogue a wide range of denial measures used against NSAs with deterrent effect. Many denial measures can have some obvious overlap with measures intended to create punitive fears. These include: military forays to disrupt NSA operations and force NSA leaders underground; defenses; laws that give greater authority to governments to detect NSA communications and preparations for attacks; and prison policies that keep NSA leaders, once captured and incarcerated, from exercising leadership while behind bars.

Disruption operations. A number of actions by states to deny their opponents sanctuary and operational freedom of action fit under this category. For example, Israel maintained a military presence in the Lebanese security zone from 1985 to 2000 and routinely conducted operations there to find and disrupt Hizballah activities. Israel also conducted military incursions in the West Bank and Gaza to keep Hamas and other Palestinian rejectionist leaders on the run and to disrupt terrorist preparations in areas known to be centers for such operations. Similarly, the British conducted intrusive military operations during 1919-1921 to impede IRA-related activities. Disruptive measures can be effective tools but are accompanied by the potential for civilian casualties and a resulting backlash. For example, a 2002 Israeli military incursion into the West Bank, named "Defensive Wall," resulted in charges that the operation caused excessive civilian casualties in the Jenin refugee camp. International pressure from this incident

caused Israeli officials to curtail future incursions into heavily populated civilian areas. This deprived Israel of a relatively effective disruption tactic with denial deterrent effect.

Eliminating sanctuaries. Denying NSA adversaries a sanctuary from which to plan and operate was used with significant deterrent effect in several case studies. In the Euro-terrorist case study, the Basque separatist group, ETA, initially used safe areas in France to operate freely and carry out violent attacks against Spanish targets. Only after French officials cooperated with Spanish authorities in eliminating these sanctuaries and in extraditing captured ETA leaders was Spain able to conduct an effective campaign against ETA and limit, but not eradicate, the threat. Similarly, the West German and Italian governments conducted lengthy campaigns to force terrorist leaders underground and deny them freedom to plan, communicate, and operate against the state. This also appears to have demoralized radical leaders by cutting them off from family and society. Over time, the psychological difficulties inside the group took a toll on the cohesion of the group.

Defenses. Purely defensive measures include Gaza checkpoints and the Israeli security barriers to limit opportunities for suicide bombers to reach Israeli civilian targets. Such measures increased the difficulty for Palestinian terrorists to carry out attacks and increased the likelihood that they would be detected and killed or captured before they could complete their mission. In another case study—the United States versus the Barbary regencies—the United States used defensive measures by adding armed naval escorts to some merchant convoys in the Mediterranean. Without naval escorts, merchantmen were easy prey for Tripoli's corsairs.

Prison policies. States often found that leaders of NSAs could operate quite efficiently from prison—apparently reducing the fear of imprisonment and the debilitating effects of capture on NSA operations. West Germany had to enact new prison laws that made a crime of carrying communications between imprisoned RAF leaders and their comrades who remained at large. Spain had to disperse incarcerated ETA members among geographically separated prisons to keep them from collaborating while behind bars. Some states (e.g., Russia, Germany, Italy, Spain) employed unique prison-release policies for reformed NSA members in order to reduce the popular base of support for the NSA cause and to obtain information about NSA operations and organization. These measures increased the fear of capture for individual NSA leaders and the challenge incarceration posed to the effective functioning of the NSA.

In general, denial measures, employed for the purpose of defeating the NSA or limiting the potential damage that the NSA might cause, demonstrated to the NSAs that their actions were more likely to be thwarted, less likely—if carried out—to cause the intended effects, and less likely to further their goals. At the very least, such defensive measures can complicate NSA planning and operations, thus raising the potential for failure. Failed operations themselves can be a net loss to NSA resources and can be a blow to NSA prestige. The clearest example of this is from the European terrorist case. In response to a Red Army Faction airliner hijacking in October 1977, the German military demonstrated an ability to end the hostage-taking successfully by using a specialized unit, GSG-9, to seize the plane while on a runway in Mogadishu, Somalia. In a flawless surprise rescue mission, GSG-9 freed all of the passengers and killed the terrorists. Two high-ranking RAF leaders in prison were so demoralized by this failure that they committed suicide in their cells. There were no further hijackings by the RAF.

Inducements in Support of Deterrence

It may seem intuitive, based on the extreme goals of many NSAs and the corresponding goals of states, that the states in the case studies were not eager to offer concessions or inducements to NSAs. However, in multiple cases, inducements or concessions to NSAs appear to have had some value *when used to complement deterrent threats*. States used this combination to reach an accommodation with NSA leaders, to encourage defections from NSA ranks, or to undermine the NSA's base of support. For example, in its treaty with the IRA in 1921, Britain accepted many of the IRA's key demands for self-rule while not compromising its core objectives (protecting its basing rights and the status of Irish citizens under the crown). In another example, the United States, although loath to accept the tribute system of the Barbary regencies, did make payments to the pasha of Tripoli as a condition of the treaty of 1805 (in addition to threatening further escalation of naval action and a land campaign aimed at the pasha's overthrow).

Another form of inducement is amnesty for "reformed" or "penitent" NSA members. Amnesty, selectively used, can serve to undermine support for the NSA, either from group members or its popular base. For example, amnesty was offered by Britain to rebellious Shi'a and Kurd tribesmen as London prepared to disengage from its mandate in Mesopotamia. Similar to an amnesty, "social reinsertion" was offered by the Spanish government to imprisoned ETA terrorists, provided they publicly renounced violence.

The Russian approach to amnesty in the second Chechen war was both more nuanced and comprehensive. Moscow was willing to accept "repentant" rebels to serve in a proxy role in its surrogate government in Grozny. These new allies provided Moscow with intelligence on their former Chechen comrades who did not reconcile with the new order and a proxy force with intimate knowledge of the local conditions. As an added incentive for the rebels to desist, the Kremlin made clear that it had no patience for negotiating or compromising with irreconcilables.

The case studies also included examples in which inducements, offered as straightforward compliance with NSA demands, were unproductive or counterproductive. For example:

- The West German government's exchange of imprisoned RAF leaders for kidnapped citizens simply led to more kidnappings until the government changed its policy, refused to negotiate for hostages, and demonstrated a willingness to use force to free hostages.
- The Soviet Union's prompt compliance with kidnappers' demands to pressure Syria and withdraw its personnel from Lebanon did not earn the release of its hostages in Beirut in 1985.
- Russia granted Chechnya a large degree of autonomy in 1996 as it disengaged from the first Chechen war, but this was not enough to keep the Chechens from carrying out incursions against neighboring republics or deter terrorist bombings of several apartment buildings in Russia.

Record of Deterrence in the Case Studies

Examination of the case studies suggests that the common notion that terrorists cannot be deterred is mistaken; deterrence can be effectively employed against NSAs. Examples from the cases demonstrate that states can use strategies of deterrence to modify NSA decision making and behavior.

- The Barbary regency of Tripoli agreed to a treaty with the Jefferson administration on reasonable financial terms in important part because of the sustained threat from U.S. naval action against the port city over several years and the prospect of regime change that was threatened credibly by an overland military force. A one-time cash payment to the pasha of Tripoli provided an effective inducement to conclude the treaty of 1805.
- The effectiveness of British operations in Northern Ireland to disrupt IRA activities and the threat of further British military escalation, combined with the inducement of limited Irish self-rule, contributed to the IRA's acceptance of peace terms that fell short of the IRA goal of full Irish independence.
- In Mesopotamia, British air attacks provided a relatively affordable way for Britain to deter further unrest among Arab tribes. Over time, however, the Shi'a and Kurds became familiar with the limitations of air power and devised countermeasures that limited the coercive effects of British tactics.
- Accounts of the 1985 Soviet attempt to secure the release of hostages being held in Beirut suggest that Hizballah complied with Moscow's wishes in response to Soviet measures against Hizballah's patron, Iran, and out of concern by the kidnappers that the Soviets would retaliate against their family members.
- In the 1990s, Israel demonstrated its willingness to conduct disruptive military operations against Hizballah in southern Lebanon. After Israel's withdrawal from the southern Lebanon "security zone" in 2000, the prospect of the reapplication of this type of tactic against Hizballah motivated its leader, Hassan Nasrallah, to restrict Hizballah's actions and comply with a number of de facto redlines established over time by Israeli-Hizballah skirmishes.
- West Germany and Italy were successful in countering radical extremists (the Red Army Faction and Red Brigades, respectively) through sustained campaigns that relied on a broad range of denial measures, punitive threats, and, when applicable, inducements. West German and Italian measures forced NSA leaders underground. Cut off from society, family, and friends for years, the leaders of these radical groups became demoralized, the cohesion of the groups disintegrated, and their terrorist actions largely came to an end.

The case studies demonstrate that at least some NSAs can be deterred at least some of the time. The types of conditions under which coercion or deterrence is more likely to be effective typically include the following:

- central leadership and control of the NSA and its operations;
- limited third-party support or control that significantly influences the behavior of the non-state actor;
- the NSA operates in territory accessible by the state (no sanctuary for NSA operatives); and
- the goals of the NSA are not urgent and absolute—there is some room for tactical retreat or compromise (however labeled).[13]

In many of the case studies, the state objective was simply the elimination of the NSA threat. While deterrence may not be the priority objective of the state, it may be the concomitant effect of steps taken to defeat the NSA or limit damage done by the NSA. Ultimately, this concomitant

deterrent effect may be the most important for ending the terrorist activity. As noted above, in the case of the European terrorist groups (e.g., Red Army Faction, Red Brigades), the pressure of living underground—disconnected from family, friends, and society—eroded the will of the cadres to continue the revolutionary struggle. Demoralization was the incidental effect of the state's attempts to shut down the terrorist groups. Demoralization undermines motivation to undertake further attacks and thus contributes to deterrence. A similar effect occurred during the conflict in Iraq. Evidence released in early 2008 by the Multi-National Force headquarters in Iraq suggested that al-Qa'ida in Iraq experienced a decline in morale like that noted in the case study involving urban terrorist groups in Europe.[14]

The observation that deterrent leverage may be had as the result of actions taken for other reasons (e.g., to defeat the NSA opponent or defend against the NSA threat) is noteworthy. It suggests that states may find important advantages in being opportunistic—observant enough to see the potential for these by-products and flexible enough to take advantage of them when possible.

The case studies reveal several basic vulnerabilities that have been open for exploitation by states in the past for the purpose of establishing denial- or punitive-based deterrent strategies against NSAs.

- Alienation of select communities important to the NSA.
    - In the 1970s, several of the Euro-terrorist groups initially enjoyed broad support, or at least tolerance, from the local populace. However, over time acts of violence by the Red Army Faction in West Germany and the Red Brigades in Italy eroded the level of support. Media attention to these acts of violence turned public opinion against these groups. This alienation of the public permitted state governments to enact more effective anti-terrorism laws which had previously been opposed by the public.
- Loss of state-sponsor support.
    - In its battle with Basque separatists, Spain's actions were ineffective as long as France allowed the terrorists to enjoy sanctuary within its borders. Once France agreed to stop harboring these terrorists, Spain could more effectively disrupt terrorist planning and capture or kill key leaders.
    - In the case study of Israel versus Hamas during the 1990s, Israeli leaders sought to put pressure on supporters of Palestinian terrorists. Key supporters included Syria and Iran. Israel bombed a terrorist training camp near Damascus and flew jets over Syrian President Bashar al-Assad's home, for example, to signal that offering support and sanctuary for terrorists would not be tolerated. Israel, however, found the task of applying pressure to all supporters of terrorists very difficult as it also did not want to provoke a conflict with Iran or a new outbreak of fighting with Syria.
- Collapse of morale and capabilities.

- Euro-terrorist leaders found years of life "on the run"—separated from family and society—to be demoralizing. Personal testimonies from former terrorist leaders reveal the high psychological toll on individuals as well as the group itself.
- Effective counter-terrorist operations can also have a demoralizing effect on terrorists, as shown by the reaction of the Red Army Faction to the defeat of the plane hijacking described earlier.

- Britain ground down the IRA's capabilities and, in 1921, threatened to escalate the conflict further. The erosion of IRA capabilities (and penetration of IRA cells by informants) helped convince IRA leader Michael Collins to accept a truce.

- Death or harsh long-term incarceration.

  - Spain enacted a dual-track prison policy. Captured ETA members were offered the option of serving long terms in high-security prisons or renouncing violence and providing useful intelligence on ETA activities in exchange for more lenient sentences. This had the effect of separating hard-core terrorists from less-committed members and, over time, reducing the base of support for violent acts of terrorism by ETA.

- Failure of mission and related discredit.

  - Pancho Villa's military group suffered significant casualties in its initial clashes with the U.S. Army during the Punitive Expedition of 1916-1917. Villa's primary opponent was the provisional Mexican government in Mexico City—not the United States. Attacks on U.S. towns and businesses provided a means to sustain Villa's forces and remain a viable opposition to the government of President Venustiano Carranza. After the initial skirmish with U.S. forces, Villa and his key lieutenants avoided direct conflict with those forces and were deterred from further provoking the United States while they sought to remain a viable political force in northern Mexico.

  - Israel found that defensive measures such as barriers and control checkpoints helped reduce the number of suicide attacks from Palestinian terrorists. Some suicide bombers turned back upon finding no opportunities to kill more than one or two checkpoint guards.

- U.S. reprisal at an intolerable level.

  - The example of Moscow's response when several of its diplomats were captured (one was killed) in Lebanon in 1985 is illustrative. The Soviets demonstrated a willingness to murder and mutilate family members of those who had kidnapped their diplomats. In addition, the KGB chief in Beirut met with the Hizballah spiritual leader, Sheik (Ayatollah) Hussein Fadlallah, and personally delivered the threat that Moscow was prepared to act against these "small fry" as well as their masters in Tehran. The threat of an "accidental" missile attack on Qum (where Iran's Supreme Leader Ayatollah Ruhollah Khomeini resided) may have been instrumental in the release of all remaining Soviet officials.[15]

- In Mesopotamia, harsh reprisals by Britain's Royal Air Force coerced cooperation (at least for a time) from rebellious tribal groups.

- In the 1990s, Israel enacted a policy of responding to low-level Palestinian terrorist attacks with high-level military operations into Gaza and the West Bank. These operations imposed severe hardships on the Palestinians and disrupted attack planning by Hamas.

- In Chechnya, Moscow offered to spare cooperating localities from "cleansing operations" and provided economic assistance to those that cooperated. This tactic was effective in dividing Chechens, rewarding collaborators, and weakening the insurgency.

- Fissures within a transnational organization (e.g., national, tribal, sectarian).

  - In the late 1700s and early 1800s, the United States had its merchant ships captured by raiders from the Barbary regencies. Early in the Jefferson administration, the regency of Tripoli conducted open warfare on U.S. shipping. In the five-year campaign against Tripoli, the United States had to give the pasha of Tripoli reason to be deterred from attacking U.S. merchant ships, while at the same time keep Tripoli's allies (Algiers, Tunis, and Morocco) from entering the fray on behalf of their Muslim ally.

Summary of Findings From the Case Studies of Conflicts Between States and Non-State Actors

From the case studies, some practical guidance can be distilled for understanding today's non-state adversaries—including al-Qa'ida—and countering their activities. This guidance—insights, rules of thumb, cautions—has particular merit because it derives not from an abstract model, or even from knowledge hard won in battling only a single non-state enemy, but from broad, real-world experience involving a variety of NSAs, states, third parties, geographic settings, historical periods, security challenges, strategies, tactics and tools (of both states and their non-state enemies), and conflict outcomes.

Hostile actions by non-state actors can be prevented by deterrent measures.
The blanket statement, "terrorists cannot be deterred," though often made, is not supported by the historical record. In certain circumstances, terrorists have been deterred. Planning premised on the false belief that deterrence applies only to traditional nation-states would exclude options that could be effective in thwarting terrorist organizations. As with all deterrence problems, success or failure will depend on the details. The particular characteristics of a non-state actor—its leadership, personnel, organization, objectives, motivation, location, support, and capabilities—as well as the activities of host, patron, and other relevant states will determine the susceptibility of the NSA to deterrence. In addition, changes in the broad context within which a non-state actor operates can make deterrence more or less difficult; political, social, or economic developments, for example, may strengthen or undermine the NSA's position. Deliberate efforts to alter that context may be a useful way to increase the

susceptibility of a non-state actor to deterrent strategies if it has demonstrated an ability to withstand previous pressures.

Deterrent threats and counterterrorism operations might be sufficient to discourage an NSA from carrying out a large-scale attack against civilians, but not to end altogether the violent activities of that group. Israel's long struggle with terrorism shows that, in contrast to the experience of the Cold War, deterrence of non-state actors can break down repeatedly and need to be reestablished through, among other means, demonstrations of force. There is scant evidence that members of these groups will be "self-deterred" by moral or ideological inhibitions. In only one case was a group member restrained by his qualms: an Aum Shinrikyo follower who, in preparing for an attack on the Tokyo subway, decided not to load improvised briefcase sprayers with botulinum toxin.

There is no single formula for deterring non-state actors.
"Tailored deterrence," a concept endorsed by the Defense Department,[16] means what the phrase plainly implies: a state's deterrent strategy is likely to be more effective to the extent that it is informed by an understanding of the specific opponent and circumstances. Deterrence of non-state actors must be viewed as an empirical problem specific to each opponent.

Deterrent efforts with a prospect for success require specifying objectives, understanding the relevant aspects of the NSA's decision making and behavior, determining its vulnerabilities, employing appropriate means to exploit those pressure points, and assessing the resulting effects. One difference in the treatment of NSAs and states might be the relative reliance placed on denial versus punitive deterrent threats. Punitive threats alone are sometimes used effectively to deter states. For NSAs that cannot be easily threatened—because they have "no home address," have a decentralized or distributed organization, relative autonomy, or operate from a sanctuary—deterrence by denial may be of necessity and greater value.

Attempts to deter non-state actors can draw on an array of possible methods and means.
Deterrent options for dealing with NSAs include both punitive and denial threats, which, under the right circumstances, might be coupled with appropriate inducements. Punitive threats can be directed against leaders, rank and file, supporting networks, and state patrons. The penalties threatened in past cases have included death, imprisonment, harm to kin, economic loss (for suppliers, bankrollers, and state patrons), and regime change (for state patrons). The composition, dynamics, and authority of the leadership of an NSA will factor in the effectiveness of counter-leadership targeting or threats intended to force leaders to restrain lower echelons and foot soldiers. The credibility of punitive threats may depend on periodic applications of force against the NSA.

Denial measures against non-state groups can complicate their planning, impede their activities, demoralize their personnel, frustrate their ambitions, and thereby discourage them from undertaking hostile actions. Measures that can produce these effects include disruptive attacks by military forces, aggressive and sustained operations by domestic law enforcement agencies, penetrations by intelligence organizations, interdiction of supplies of money and materiel, and protection of potential targets.

Strategies for deterring non-state actors often have involved combinations of punitive and denial threats. For example, the combination of threatened punishment and denial measures can serve to deny an NSA adversary sanctuary and force its leaders underground. As demonstrated in the case study of urban terrorism in Europe, the long-term effects of life on the run can be demoralizing to NSA leaders and can foster discontent within the group and an end to its activities.

In some cases, restraint by NSAs also might be encouraged through inducements. These can include concessions that partially accommodate the demands of the non-state actor without endangering the core interests of the state. Unless linked with threats, however, inducements in the past appear to have been ineffective and in some cases counterproductive. In Europe during the 1970s and 1980s, for example, full amnesty for imprisoned terrorists did nothing but embolden those extremists and their comrades.

Deterrence of a non-state actor may not be a simple bilateral matter.
In some cases, it may be possible, or necessary, to influence a non-state actor indirectly, by exerting pressure on a third party, which could be its state patron or host. States with terrorist organizations within their borders might have better information on the locations and movements of these groups than that available to outside intelligence services. Authoritarian regimes might have security apparatuses better suited to suppressing local terrorists. The results of such indirect efforts, however, are mixed: Israel at various times has attempted to coerce Syria into restraining the Palestinian terrorist groups it has harbored and the authorities in Beirut into curbing Hizballah, the Lebanese-based group allied with Iran. In those instances, Syria felt little need to comply with Israeli demands because it knew the Jewish state could only push so far for fear of escalation to war with Damascus. In Beirut, Lebanese officials lacked the power to restrain Hizballah.

Third-party surrogates sometimes can be useful instruments for countering NSAs. They thus may become an important part of any denial or punitive deterrent strategy. Their cooperation may result from coercive threats made by the state opponent of the non-state actor, from a mutual interest in seeing the NSA suppressed, or from a combination of the two. The desire of the Mexican government to have the U.S. Army's Punitive Expedition withdraw from Mexican territory in 1916 gave it a strong incentive to pursue Pancho Villa and his band. The Irish Free State, created by the treaty ending the 1919-1921 Anglo-Irish War, had the legitimacy, which the British did not, to crush in a ruthless manner the Irish Republican Army irreconcilables opposed to any compromise with London. In Chechnya, Russia installed a pro-Moscow regime, albeit one with some measure of autonomy, which then fought against separatists who continued to resist Russian rule.

Deterrence of non-state actors should not be considered in isolation from broader efforts to counter such groups.
Steps to deter should be guided by an overarching design for dealing with a particular adversary. That strategy, in turn, should be consistent with higher-level security objectives, national strategy, and political constraints. Britain's lack of a strategy for much of the war with the IRA, along with a flawed understanding of the adversary, impaired its conduct of the conflict and delayed an end to hostilities.

Deterrence alone is unlikely to be the preferred approach for countering the threat from a non-state actor. At best, deterrence leaves the threat in check but still in place. Such a situation is likely to be acceptable only if there is no other choice. States typically aim to eliminate non-state opponents, but are forced by the resilience of these adversaries and by circumstances to resort to deterrence. Strategy may emphasize defending against and defeating a non-state actor, while recognizing the need for deterrence if defenses are insufficient and defeat is not readily imposed. Deterrence might hold a non-state actor at bay while other capabilities aimed at its defeat are brought to bear or until conditions change. The leaders of Israel have sought, as one Israeli analyst has put it, to "extirpate" their terrorist enemies. Despite decades of effort, and notable Israeli successes, the terrorist threat remains. Deterrence has become part of Israeli strategy by default. Deterrent and coercive threats are used in combination with other Israeli counter-terrorist actions, which themselves can have deterrent effects as by-products.

Domestic constraints may affect the strategies, tactics, and means available for deterring non-state actors.

For liberal democracies, certain deterrent measures that may be effective in principle also may be politically unacceptable, at least initially. Examples include measures perceived to infringe on civil liberties or those that include harm to noncombatants. These constraints may weaken or disappear, however, under the exigencies of severe conflict with a non-state actor. In Japan, legal protections for religious groups inhibited police investigation of Aum Shinrikyo. European countries afflicted by terrorism at first were constrained in their responses by various legal concerns, but growing public revulsion at terrorist brutalities enabled changes to the laws that increased police powers, expanded the use of search warrants and checkpoints, extended pretrial confinement of terrorists, speeded the trials of these defendants, limited contacts between terrorists and their lawyers, imposed stiffer sentences for unrepentant terrorists, and isolated prisoners thought to be directing terrorist attacks from their cells. In Israel, despite some domestic opposition and frequent protests from abroad, officials have been willing to employ harsh counter-terrorism measures—targeted killings, bulldozing of houses owned by the families of terrorists, military operations to pressure civilian populations in which terrorists operate—because of the severity of the threat Israel confronts.

It is worth pointing out that, in at least one case, an NSA adopted a strategy that purposefully exploited harsh responses from its state opponent in order to advance its cause. In the Anglo-Irish War, the IRA deliberately incited bloody reprisals by the British as a way of both intensifying the enmity of the Irish people and creating crises of conscience for liberal politicians in London.

In sum, the findings from the case studies examined by National Institute challenge some of the conventional wisdom regarding the deterrence of NSAs. Under certain circumstances, NSAs can in fact be deterred. Where deterrence of an NSA is feasible, it may not necessarily be the priority objective of the state, but a concomitant effect of efforts to defeat or destroy an NSA. Deterrence of an NSA may not be limited to two parties, but may involve multiple parties interacting in unique ways. A tailored approach that distinguishes among audiences and circumstances should be employed in attempting to deter NSAs. Generic threats communicated indiscriminately may deter, but a strategy informed by an understanding of the target and context should have a greater chance of being effective. Deterrence of hostile action by an NSA in most cases appears to have been the result of a combination of denial and

punitive deterrent measures arrived at over a long period as the state works to defeat and destroy the NSA. Finally, inducements can contribute to efforts to deter NSAs—if used in combination with punitive and denial measures.

The subsequent chapters of the report apply these lessons to the problem of deterring a mass-casualty attack by the al-Qa'ida terrorist group. The first step in the analysis is a concise characterization of this particular non-state adversary.

III. Strategic Profile of Al-Qa'ida[17]

This chapter provides a strategic profile of al-Qa'ida. The profile includes examination of the terrorist group's history, organization, ideology, strategy, operations, and tactics. As discussed in the subsequent chapter of the report, an understanding of these aspects of al-Qa'ida is important for determining whether the group can be deterred from pursuing a WMD attack against the United States and, if so, which of its vulnerabilities might be exploited to produce a deterrent effect.

History

Al-Qa'ida was formed at the close of the Afghan-Soviet war in 1988 in a series of meetings among Islamic groups in Peshawar, Pakistan.[18] Though the record is not complete, and dates are not always available, minutes of the various meetings surrounding al-Qa'ida's founding suggest that what began as a program, inspired by the Palestinian Islamist Abdallah Azzam, to support the Afghan jihad and assist defensive jihads around the world became a secret organization that excluded Azzam and followed a more radical agenda. The structure of this secret organization borrowed heavily from the Egyptian Islamic Jihad (EIJ) but was not limited to the EIJ's focus on Egypt.[19] After Azzam's assassination in 1989, the organization moved to take over much of the worldwide infrastructure he had helped build to support the Afghan jihad.[20]

The record from 1988 to 1992 also is spotty, but it is clear that by 1992 al-Qa'ida had turned its back on the squabbling Afghan factions and set its sights on creating Islamic states in Yemen, East Africa, and Central Asia, and on discouraging the United States from interfering. The organization had also moved to Sudan in the wake of pressure on the "Arab Afghans" (non-Afghan veterans of the Afghan war) from both the government of Afghanistan and other governments threatened by their activities. Al-Qa'ida's relationship with Sudanese National Islamic Front leader Hassan al-Turabi, who was working to build an "Islamic international," allowed al-Qa'ida to grow along all fronts into a highly structured, bureaucratic, international organization with a budding army, numerous businesses, and associations to varying degrees with numerous Islamic groups around the world, with Iran and, to a lesser extent, with Iraq. Al-Qa'ida also at least provided support to, if not directed, terrorist attacks in numerous countries, including the United States, Saudi Arabia, Egypt, and Libya. Its stay in Sudan was abruptly cut short in 1996, when the Sudanese government, acting on international pressure, especially from Libya, forced it to leave, sacrificing all of its businesses and most of its training infrastructure.

Osama bin Laden then moved al-Qa'ida to the only safe haven he could be sure of—Afghanistan. With a Taliban victory all but assured, bin Laden eventually accepted the Taliban's overtures and swore allegiance to its emir, Mullah Mohammed Omar. Al-Qa'ida then set about rebuilding its training infrastructure in Afghanistan while continuing its overseas operations. The group also created a formal alliance structure with the formation of the "Front for Jihad Against the Zionists and Crusaders" in February 1998. Despite this, al-Qa'ida's relationship with the Taliban was a wary one; the Taliban tried to control al-Qa'ida's activities while al-Qa'ida hid much regarding its true intentions and external operations.[21] Thus, the Taliban was not

prepared for the international backlash and limited U.S. retaliatory cruise missile attack resulting from al-Qa'ida's bombing of two U.S. embassies in East Africa in August 1998. [22]

The U.S. invasion of Afghanistan after 9/11 threatened the destruction of the central leadership of al-Qa'ida, but in the end most members based in Afghanistan managed to escape to Pakistan and Iran. With the core once again thrown out of Afghanistan and its the leadership constrained, al-Qa'ida regional groups and individual adherents began their own campaigns to strike the United States and its allies. Plot after plot, some successful, ensued over the next few years, which caused even more countries to take action against al-Qa'ida. U.S. officials repeatedly assessed that al-Qa'ida was seriously damaged, perhaps even "on the ropes," but retained the potential to reconstitute itself as it had in the past.[23] This potential was realized when the United States invaded Iraq. Al-Qa'ida and other organizations used the impending U.S. action as a rallying cry and quickly set up shop in Iraq even before the arrival of U.S. troops. Fighters quickly began arriving in Iraq, and had entrenched themselves within months. Recruitment soared.[24] As in the past, it would be several years before al-Qa'ida's foothold was significantly degraded.

Accounts of records seized in the May 2011 raid on bin Laden's compound in Pakistan indicate that the central leadership functioned well in that country, despite periodic disruptions from the Pakistani army when Pakistani Taliban forces threatened domestic stability.[25] Leaders were able to reconstitute some training, run operations, recruit personnel, and manage the international organization from their less secure safe haven. Bin Laden himself lived in relative safety, apparently through the good graces of at least elements of the Pakistani government.[26] His death at the hands of U.S. forces in such a seemingly secure environment, coupled with the intelligence windfall reaped from his compound, has once again put the organization's central core in jeopardy. This time, however, it may have nowhere to go. Relations with Iran have been strained, and al-Qa'ida leaders allegedly under house arrest in Iran since 2001 recently have been appearing in Pakistan. Al-Qa'ida investigated the potential for safe haven in Somalia in 1996, but bin Laden rejected that option because the organization would be too vulnerable there, given the chaotic situation among rival groups and attacks by neighboring countries. Its current allies elsewhere in Africa are no more secure.

Studies show that the occasional loss of leaders and key cadre can have little adverse effect on a group like al-Qa'ida, and can sometimes even prove beneficial—as it has with Hizballah—by removing less capable or rigid leaders.[27] Multiple losses of this sort, occurring in rapid succession over a period of one or two years—as al-Qa'ida is experiencing now—have contributed to the collapse of some groups but, in al-Qa'ida's case, the regional affiliates and underlying movement are strong and have long had, or in some cases are in the process of forging, lateral connections.

The Organization in General

Al-Qa'ida is an organization that is the focus of a wider terrorist network and radical ideological movement, and a peripheral element in a much larger and older Islamic fundamentalist movement. Al-Qa'ida is modern and complex, melding elements of an administrative bureaucracy, a military organization, a multinational corporation, a social movement, and a conspiratorial group. It contains dominant personalities, flexible and collective leadership, a

cooperative ethos, and thousands of committed individuals who, at their best, are self-disciplined and self-reliant, yet able to respond to central direction.

In terms of organizational culture, Al-Qa'ida has two faces—a modern organizational face and a traditional jihadi one. This dual nature sometimes leads to apparent contradictions that can be troublesome for the organization and confusing to observers.

On the one hand, al-Qa'ida has been organized hierarchically and run like a bureaucracy, with well-defined roles and generally followed procedures. The structure includes a leader (the emir), who is selected by a council of senior members; his deputy, who runs the day-to-day operations of the organization; and committee heads for military, intelligence and security, finance, religion, media, and other key functions.[28] The group's international structure includes regional headquarters in at least Europe, Africa, the Arabian Peninsula, and Southeast Asia, with subsidiary offices and commands throughout each region.

Today, al-Qa'ida headquarters, what might be referred to as "core al-Qa'ida," still includes the emir, senior deputies and committee heads. The leadership council still functions to at least some extent; for example, it has elected Ayman al-Zawahiri to replace bin Laden as emir, continues to designate regional leaders, and manages the group's overall strategy and major operations. The entire council is not collocated with the emir, or even in the same country, nor was it historically.

Michael Scheuer, former chief of the al-Qa'ida unit at the Central Intelligence Agency (CIA), makes a strong case for the coherence of the organization through at least 2008. He notes the core's successful efforts to take control of operations in Iraq after Abu Musab al-Zarqawi, leader of the al-Qa'ida branch in that country, was killed. Bin Laden sent long-serving senior al-Qa'ida commanders Abu Hamza al-Muhajir and Abu Umar al-Baghdadi to replace Zarqawi, apologized for Zarqawi's bloody excesses, and ordered the new leaders to create cooperation with local groups, which resulted in the creation of the "Islamic State of Iraq" in 2008. Al-Qa'ida in Iraq also modified its targeting, ending beheadings and greatly reducing random attacks on civilians.[29] Analyst Mark Stout has made note of Khalid Sheikh Mohammed's assertion that, as a rule, prior to 9/11 al-Qa'ida operational chief for Asia, Riduan Isamuddin Hambali, had to be informed of all al-Qa'ida activities by operatives in Asia.[30] There are many other examples of strong command-and-control links between the core and regional groups.

There is also compelling evidence that core al-Qa'ida maintains control over broad strategy, as well as its implementation, to varying degrees. Former member and bin Laden driver, Abu Jandal, has written that, "Al-Qa'ida pursues a method or principle that calls for centralization of decision and decentralization of execution."[31] According to the manual, "Introduction to Guerilla Warfare,"

> Precise intended political objectives must be designated for the act of terrorism. No tactical operations are permitted outside the general strategic plan. No undisciplined initiatives in tactics are allowed. Operation orders and target specifications and timing of strikes come from the general leadership only and not from local leadership in districts and cities.[32]

Alongside al-Qa'ida's western-style bureaucracy are norms that have been associated with jihadi groups since the time of Mohammed. These norms have sometimes been in conflict with bureaucratic standards in ways that caused the organization serious trouble.

- Several scholars have noted that al-Qa'ida writings "analogize the medieval combat tactic of 'plunging oneself' into the enemy (*inghimas*), with present day 'martydom operations.'"[33] For example, Yusuf al-Ayiri, who was in charge of al-Qa'ida's media outlet in 2003, cited in "The Islamic Ruling on the Permissibility of Martyrdom Operations" over 40 *hadith* (saying or practices attributed to Mohammed) about individual warriors rushing the front lines alone, fighting without armor until they were killed, and seeking martyrdom in battle. Ayiri asserted, "The greater the risk, the greater the reward."[34] Lower-level members are sometimes infused with zeal and seek martyrdom to the point that they disobey orders and rush into battle with little or no organization, often with disastrous results. A high-ranking al-Qa'ida member, Sayf al-Adl, wrote sometime after 9/11 that, "The sweet smell of martyrdom…lit the fire of competition to become martyrs.…Many times I had to ask the leaders of the groups to restrain the fervor of the youngsters and not let them chase the enemy outside the realm of the set plan." [35]
- The emphasis on martyrdom also offers an option for members who have become depressed, potentially depriving the group of those who might have continued to contribute in other ways. For example, an "Afghan" veteran wrote in his diary, "Initially I enjoyed violence but the longer I fought, the less pleasure I took in it, and then it became more of a psychological burden. At this latter stage I lost interest in life and desired death."[36]
- Zawahiri's July 2005 letter to al-Zarqawi,[37] and "The Management of Savagery," by Abu Bakr Naji (a pseudonym),[38] contain analyses of the contradictions between what it takes to form a government and the behavior of some jihadis.

Functional Areas

Doctrine

Al-Qa'ida promotes and, when possible, enforces common political and military doctrine. The group began developing and disseminating this doctrine from the beginning with the formulation and adoption of its covenant. Since then, it has sponsored updates to training manuals, copies of which have been recovered across the world; sought advice from *ulema* (Muslim scholars and religious leaders) on doctrinal changes or new developments and disseminated these rulings through speeches and directives; and produced lessons-learned studies of military operations and overall strategies and disseminated these findings via letters, books, and directives. For example, al-Qa'ida provided to its operatives the document, "Advice for Mujahideen in Iraq: Lessons Learned in Afghanistan."[39]

While members do not always agree with these directives, there is internal pressure to conform. Captured documents show that members sometimes share their assessments of each other's performance and refer to issues of loyalty and obedience. In 2005, "Atiyah" (probably Atiyah abd al-Rahman, a senior al-Qa'ida leader), writing on behalf of bin Laden, threatened to "replace" al-Zarqawi for not taking orders and "driving people away" from the organization.[40]

On the other hand, innovation is encouraged and sometimes leads to arguments over doctrine. Plans to conduct suicide car bombings in 1998 and the destruction of the World Trade Center in 2001, among others, required doctrinal changes with regard to expanding the approved sets of targets and tactics. These, in turn, required clerical review, if only for the sake of appearances. For example, al-Qa'ida's declaration of the "Front for Jihad Against the Zionists and Crusaders" contained a fatwa (a religious legal ruling) permitting all Americans to be killed anywhere.[41] The full text of a *fatwa* on this subject from Egyptian cleric Umar Abd al-Rahman, then in jail for conspiracy in the first World Trade Center bombing, was widely circulated at a gathering in Afghanistan in May 1998, three months before al-Qa'ida bombed U.S. embassies in East Africa. It included injunctions to "bring down their airplanes…burn their corporations… sink their ships."[42]

Al-Qa'ida members and supporters have worked hard over the past decade to develop a doctrine for WMD use. Al-Qa'ida succeeded in getting *fatwas* from a handful of Saudi clerics, such as Nasir bin Hamd al-Fahd, that essentially justify the use of WMD at any time in support of the Muslim strategic situation.[43] Others maintain that additional conditions must be met, especially with regard to nuclear weapons. Clerics and theorists have developed several justifications for the acquisition or use of weapons of mass destruction:

- *Reciprocity and Punishment.* Al-Qa'ida supporters argue that they have the right to kill as many people as the West has killed (reciprocity) in ways that will be as painful as possible (punishment). Suleyman Bu Ghaith, an al-Qa'ida spokesman, wrote in "Under the Shadow of the Spears" that, "We have not arrived at equivalency with them; thus, we have the right to kill four million Americans, among them one million children, expel twice that number, wound and incinerate hundreds of thousands. No, it is our right that we fight them with chemical and biological weapons, to cause them to catch lethal, strange, and bizarre diseases that have struck Muslims because of their use of chemical and biological weapons."[44] (Bu Ghaith reportedly left Iran and returned to Afghanistan in September 2010.)[45] Zawahiri has taken the position that jihadi possession of WMD is needed to "keep up with the destructive quality of their [enemies'] weapons, their destructive powers, their disregard for all taboos."[46]

- *Deterrence.* Many al-Qa'ida members, including Abu Musab al-Suri and bin Laden himself, believe that Muslims need WMD weapons, particularly nuclear weapons, to deter attacks by the West.[47] In an interview after Pakistan tested a nuclear weapon in 1998, bin Laden said, "Acquiring [WMD] for the defense of Muslims is a religious duty."[48]

- *Waging War.* Nasr al-Fahd sees WMD as a legitimate tool of war for "overcoming/subduing/enraging the enemy." (He notes that this view is considered "crazy" by some.)[49]

- *Use in Dire Straits.* Al-Fahd also wrote that the more desperate one becomes, the more that is permitted. He quotes from Ibn Taymiyya (an Islamic scholar of the late thirteenth and early fourteenth centuries) as justification: "No conditions limit this: one repels the enemy however he can."

Finances

Al-Qa'ida has a financial department with designated personnel, accounts, and accounting practices to manage income, distribution, and expenses. The requirements are more complex than are those for regular political or military organizations because al-Qa'ida must hide the sources, transfer, and expenditure of funds. This secrecy makes it impossible for outsiders to know the organization's true operating expenses, all of its funding sources, or the amount of funds it has in reserve. In addition, supporters are encouraged to make contributions that would not appear on al-Qa'ida's accounting ledger; "39 Ways to Serve and Participate in Jihad," first published in 2003 on the al-Qa'ida-associated al-Farouq website, includes six ways to share costs, for instance, purchasing supplies and supporting families.[50]

The required secrecy over time has prompted al-Qa'ida to adopt a number of measures to safeguard its finances, measures the organization can abandon or return to as circumstances allow.

- Sources of income have included witting donations from wealthy individuals, witting and unwitting contributions from charities, money from legitimate businesses, and proceeds from various forms of crime, including theft, fraud, kidnapping and, allegedly, drug smuggling.[51]
- Funds are kept in regular bank accounts, informal banking systems off- and on-line, corporate accounts, charitable accounts, and "under the mattress."
- Couriers, wire transfers, account transfers, and chits are used to move money, on-line and off-line. Some of the funds are laundered in various ways.
- Recipients of funds often receive relatively small amounts easily stored in safes or handled by other means in a local office.

Al-Qa'ida appears to manage its funds through two separate systems. Daily operating expenses are delivered on an as-needed basis, and affiliates often raise their own operating funds, sometimes resulting in shortages due to interruptions in cash flow caused by funding or transmission problems. For example, in 2005 Zawahiri asked Zarqawi to send the core group $100,000 because, while its situation was in general good, "many of the lines have been cut off."[52] Reports of such episodes often give outside observers the impression that the organization is running out of money. It is possible that al-Qa'ida keeps cash reserves for special purposes.

Also difficult to measure is the extent to which operations are funded from the center, by regional groups, or at the local level. The organization collects funds at all of these levels, to varying degrees, in different places, and at different times. The key difference appears to be the security and ease of moving and maintaining funds. For example, in the mid-1990s, when the group was relatively secure, core al-Qa'ida issued pay and managed most transactions.[53] After 9/11, local groups were often strapped for operating cash and, with the encouragement of the central leadership, resorted to developing their own donor lists and local enterprises, both legal and criminal.[54] This adaptation remains in place today.[55]

Media

Al-Qa'ida has valued the power of the media from the beginning, its members having already been involved in producing jihadi publications for Azzam's organization. A document written

circa 1990 lays out a recommendation for a comprehensive and sophisticated media strategy for the new organization.[56] Al-Qa'ida's media arm, under various names over the decades, has always fulfilled several functions that are closely tied to the political, operational, and financial aims of the terrorist group, including propaganda, recruitment, training, disseminating doctrine, and allegedly operational communications.[57] Those familiar with *al-Jihad*, a magazine produced by the Maktab al-Khadamat (Afghan Services Bureau) in the 1990s originally to report on and support the war in Afghanistan and other defensive jihads, will see little difference between it and current issues of the on-line magazine *Inspire*, except for the target audience and means of delivery. Al-Qa'ida's main concern with regard to media production has always been to tell its own story in its own way, free of censorship, and to reach target audiences. Al-Qa'ida also monitors world media for intelligence and counter-intelligence purposes.

For these reasons, al-Qa'ida became adept at adapting new media resources to its own use, within the restrictions imposed by the need for secrecy. The group was quick to adopt video, e-mail, websites, Voice over Internet Protocol (VoIP), as well as other technologies.[58] All top al-Qa'ida leaders are serious students of their enemies, and they have many information sources, including several American members working in their media operations. The media and information committee has had as many as 10 subsections, including a unit for analysis.[59] Many officers of core al-Qa'ida have Internet access, diskettes, books, newspapers and journals, and a stream of visitors and couriers who help them stay current. Hosts in Pakistan, and elsewhere, may disguise the true users of digital and cyber-linked communication and media systems.

Leadership

Bin Laden

Bin Laden was a rare type of leader who fostered a meritocracy and encouraged initiative and innovation, yet held the organization to his own grand vision of universal Islamic government. He was respected by all, adored by many, and feared by some. His vision and the force of his personality probably played a large part in keeping al-Qa'ida focused on actions—such as large-scale attacks on the United States—that would support its claim to lead an "Islamic army" and not just a terrorist group.[60]

His rise to power illustrates the personal and professional skills necessary to lead and manage a global non-state actor. He was a respectable and hard-working member of a prominent and wealthy Saudi family before becoming an extremist and militant. He used his wealth to help Abdullah Azzam found the Maktab al-Khadamat to provide aid to the mujahidin in Afghanistan and draw in help from Muslims all over the world. Azzam tried to keep bin Laden focused on supplying material support and staying out of harm's way. Over time, however, bin Laden grew closer to extremist groups and individuals of many nationalities who had come to Afghanistan to hone their fighting skills, eventually joining them in combat, despite Azzam's misgivings. A small group of these men, including bin Laden, forged an all-Arab unit in 1986, established a base called the "Lion's Den" in Afghanistan, and became close comrades.

By 1988, Azzam and bin Laden had fallen out. Azzam wanted to continue to concentrate on defensive jihad in Afghanistan and other countries where Muslims were fighting guerilla wars against non-Muslim forces, while the Egyptians around bin Laden wanted his help in fighting the government in Cairo. In August 1988, bin Laden and his comrades from the Lion's Den secretly formed a new organization, appropriating Azzam's concept of al-Qa'ida al-Sulba ("the firm

foundation"), to take the jihad to secularized Muslim regimes.[61] After Azzam was assassinated in 1989, al-Qa'ida moved to take over Maktab al-Khadamat offices and bank accounts worldwide.[62] During this period, bin Laden was also educating himself on theology, especially that of fundamentalist medieval jurists.

One impetus to choose bin Laden as emir of al-Qa'ida must certainly have been his wealth and generosity, but there were other reasons as well. He was seen as a natural, if reluctant, leader by his comrades. As a Saudi, he may have been perceived as a neutral "outsider" by the corps of largely Egyptian, North African, and Palestinian fighters with previous terrorist experience in other organizations. He was gaining legendary status as a promoter of jihad and for his piety and bravery, and there were even stories about how he and his men had received divine help during the fighting in Afghanistan. All of these things would recommend him to the others as a leader. It was probably his vision, however, that recommended him to two prominent Egyptians, Ali Amin al-Rashidi (aka Abu Ubayda al-Banshiri) and Mohammed Atef (aka Abu Hafs al-Masri), who pushed him as a candidate for head of the group and would become his lieutenants. The three men shared a broader vision than most of the other members. Rather than focusing efforts against the regime in their home country, these men sought ultimately to bring back the caliphate (a political-religious state of various Muslim peoples) and extend its rule to the entire world.[63] While Ayman al-Zawahiri was in Peshawar and met with bin Laden, he is not listed in the minutes of the meetings where al-Qa'ida was formed,[64] and remained focused on his role as head of the Egyptian Islamic Jihad until the EIJ was nearly destroyed in 1997.[65]

During the early years of al-Qa'ida, bin Laden had a reputation as an understated but potentially messianic leader. He was said to be soft spoken and mild in his dealings with colleagues and admirers, and willing to listen to opinions and advice from those around him. Some followers spread stories that he glowed when he prayed.[66] During this time, however, he did not overtly foster a cult of personality. Thus he could, at the same time, foster initiative and innovation and create fanatical loyalty that persisted even as he himself changed.

Former comrades assert that bin Laden became more dictatorial and less patient in the late 1990s. Some claim the change started after Saudi Arabia canceled his citizenship and tried to assassinate him, and he was expelled from Sudan due to pressure from several countries in May 1996. He blamed his explusion primarily on the influence of the United States. By 1999, he believed his own propaganda that the United States lacked willpower, and so approved the 9/11 operation over the objections of key lieutenants, who more correctly assessed the United States' likely response.[67]

During this period, bin Laden permitted those around him to treat him as a cult personality with an apocalyptic aura. A cleric from Kuwait even traveled to Afghanistan in June 2001 to investigate rumors that bin Laden was al-Asaa, a figure who would pave the way for the return of the Mahdi, an eschatological figure who would herald the apocalypse and return of Jesus to earth.[68] The spread of this thinking in the organization was evident at the Kabul front in the Afghan civil war, where zealous volunteers took reckless actions on the front lines as their ancestors had done in the early days of Islam. The al-Qa'ida commander there complained in late 2000 that he had no control over the troops because they would answer only to bin Laden.[69] With bin Laden's death, it will be critical to watch whether Zawahiri or another personality can control and exploit behavior of this sort.

Zawahiri

Bin Laden's successor, Ayman al-Zawahiri, is more difficult to pin down. As leader of the EIJ, he had a reputation for being abrasive and dictatorial, and lost members' trust after being briefly detained while traveling through Albania. It was apparently only because the EIJ was broke and on the verge of collapse that Zawahiri allied it with al-Qa'ida in 1998, but even then he did not formally merge the EIJ into al-Qa'ida until June 2001.[70] A content analysis of bin Laden's and Zawahiri's speeches conducted in 2007 by two University of Texas psychologists found that Zawahiri was less emotionally attached to his topic and audience, less hostile and angry, but also the less complex thinker of the two. The study also suggested he was becoming more insecure.[71]

In his years as bin Laden's deputy, Zawahiri appears to have tried to please everyone. His many "sermons" and other statements continued to be more a call to arms than anything else, while at the same time he cautioned regional leaders to be cognizant of the requirement to build and hold the support of populations in contested areas. He followed bin Laden's lead in emphasizing the need to attack the United States.

Since succeeding bin Laden, Zawahiri has issued relatively few public statements, and most of those have been a cautious combination of anti-U.S. rhetoric, support for the overthrow of Arab regimes during the Arab Spring, and calls on those revolutionaries to establish Islamic governments.[72] In October 2001 it was reported that he sent an emissary to Somalia to deliver humanitarian aid, which would be in line with his views that insurgents need to win the hearts and minds of the populace.[73]

Councils

Shuras, or consultative councils, play a role in al-Qa'ida decision making, as they do in many Islamist organizations.[74] Al-Qa'ida was founded with three councils: the "Command Council," to advise the emir; the Regional Council, including the regional commands or affiliates; and the Executive Council, comprising committee heads in charge of the day-to-day operations of the organization.[75] Information on the group's organizational structure differs slightly over time, but there is at least one council that includes the heads of the committees on military operations, finances and administration, politics and religion, internal and external security, and media.[76] More is known about the identities of past committee heads (since captured or killed) than about the present incumbents.

Administrators

Until his death in 2001, Mohammed Atef served as al-Qa'ida's chief administrator, rather like a chief operating officer. He had a reputation for competence and fairness. Since his death, al-Qa'ida has gone through several "Number 3s" (as the Western media put it) or other top-rank administrators as they were captured or killed by coalition forces. Atiyah Abd al-Rahman, appointed "Number 2" after bin Laden's death, was killed by a drone strike just three months later.[77] It is a high-visibility job whose incumbent is bound to be identified and tracked.

Military Commanders

Al-Qa'ida's top military commanders are ultimately responsible for all the activities of the military committee—training, guerilla forces, doctrine, and, to some extent, terrorist operations. The structure below this top level is a mix of functional and geographic areas. Though the group's

first forays into combat in Afghanistan in the late 1980s were disastrous, it became a professional force under the leadership Ali Amin al-Rashidi, a former Egyptian police officer and terrorist who learned guerilla warfare alongside Ahmed Shah Masood, the legendary Afghan commander who denied the Soviets access to the critical Panjsher valley. Rashidi was killed in a ferryboat accident in 1996.[78] Sayf al-Adl is currently military head.[79]

Like administrators, senior military commanders are highly visible and therefore relatively easily targeted. This has led to a fairly rapid turnover in the past few years. Al-Qa'ida's recent efforts to unite disparate Taliban organizations may have as much to do with seeking safety in numbers as in achieving military objectives.[80] The same dynamic may contribute to driving disparate al-Qa'ida-related groups in Africa together.[81]

Operational Commanders

Al-Qa'ida appears to rely on creative, driven individuals to head its terrorist operations. These individuals will design and carry out multiple attacks based on their own skills and persist until they are killed or captured. This is not unusual for a terrorist organization; Hamas and Hizballah, for example, operate the same way. Examples of such operational leaders include Ramzi Yousef, Khalid Sheik Mohammed, Fazul Abdullah Mohammed, and Anwar al-Awlaki.

Members

Al-Qa'ida members come from disparate backgrounds, but all have been radicalized before becoming members and usually have been in other groups or had experience fighting on the front line. Numerous studies over the past several decades have found this to be the typical pattern for most terrorist groups, which is unlike that of cults, wherein members radicalize through multiple layers of the same organization.[82]

Attributes al-Qa'ida seeks in its recruits, according to captured documents, are physical fitness, Islamic faith, commitment to the organization's ideology, maturity, self-sacrifice, loyalty, listening and obedience, as well as intelligence and good sense.[83] In the beginning, members were strictly vetted through a security process, but it is not clear whether this is still the case with all members, especially those who never have significant access to the organization.

Fealty is underscored by a formal pledge, as it is in many terrorist organizations. Al-Qa'ida branches reaffirmed their *bay'ah* to al-Qa'ida, and Zawahiri personally, when Zawahiri took over from bin Laden.[84] In Afghanistan, as noted earlier, some members, including bin Laden himself, pledged a second *bay'ah* to Mullah Omar as Amir al-Momineen, or "the leader of all Muslims." Upon announcing its selection of Zawahiri to replace bin Laden, the "general leadership of al-Qa'ida" said it "confirm[ed] to our brothers in Afghanistan that our souls and worldly possessions are committed to them, under the leadership of Mullah Mohamed Omar, a Mujahid that Allah protected, to push the American Crusader Occupation from this pure and patient country."[85]

Affiliates, Alliances, and State Support

In the course of pursuing its worldwide agenda, al-Qa'ida has formed a series of alliances that intelligence analysts have viewed as concentric circles or levels of association.[86] There has always been debate about the extent to which these associated groups toe the party line. Al-

Qa'ida needs these groups to feed its own membership and keep up the jihad. Al-Qa'ida also points to its association with these groups as proof of its worldwide appeal.

All associates are Salafi jihadi groups. Beyond that al-Qa'ida has had limited exchanges with Hizballah and Hamas. There is no relationship with, or affinity for, secular and atheist groups, such as the nominally Marxist Revolutionary Armed Forces of Colombia (FARC), the Maoist Naxalites in India, or the Basque separatist Homeland and Freedom organization (ETA), though al-Qa'ida has been successful in recruiting some of their former members.

Al-Qa'ida's affiliates and allied jihadi groups are an operational and strategic strength of the organization. One obvious advantage of a network over a single group is greater resilience against attack. Foreign affiliates have often supplied victories, or at least explosions, in interludes when core al-Qa'ida was not prominent in the news. Successes by the al-Qa'ida-allied Taliban have led to talks with the United States. Al-Qa'ida allies under Zarqawi began operations in Iraq while the core group was still reeling from losses in Afghanistan, paving the way for a formal al-Qa'ida presence in the "land of two rivers."

As the overall al-Qa'ida organization has grown and regional groups have become more adept, these groups have adopted increasingly sophisticated and innovative tactics. For example:

- Jemaah Islamiya's double bombing in Bali remains a hallmark of terrorism in contemporary Asia.[87]
- Lashkar-e-Taiba carried on mass murder in central Mumbai for three days in November 2008.
- Al-Qa'ida in the Arabian Peninsula has been experimenting with various means of putting bombs on airplanes, including packages and dogs with explosives. The group was responsible for at least two plots: the Christmas Day 2009 attempt by Umar Farouk Abdulmutallab to bring down Midwest Flight 253 with explosives concealed in his underwear; and the October 2010 plot to down two cargo flights over the United States using toner cartridges filled with explosives.[88] The latter plot was apparently intended to produce multiple, near-simultaneous detonations.

Affiliates and allies reportedly are increasingly turning to crime as core al-Qa'ida comes under growing pressure in Pakistan. Affiliates have always been responsible for local operations and a certain amount of their own financing and materials, but U.S. government officials claim that core al-Qa'ida is increasingly unable to provide them with support.[89]

Affiliates

As noted earlier, from the beginning al-Qa'ida has created regional structures that are part of the organization proper. These affiliates have certain characteristics in common: a regional mandate; a leader appointed by the central leadership; cadre brought up in the al-Qa'ida system; responsibility to carry out the leadership's directives; and usually some central committee responsibility. For example, al-Qa'ida in the Arabian Peninsula has a leader appointed by core al-Qa'ida, a central cadre put together by that leadership, and responsibility for al-Qa'ida's media operations.[90] In some cases, such as in Algeria and Iraq, affiliates are the result of a merger of an independent, usually local group into al-Qa'ida. For mergers, al-Qa'ida demands that the group swear the oath, adhere to the overall goals and strategy, and obey the central leadership and procedures. In recent years, such mergers have been marked by the

group changing its name to "Al-Qa'ida in the (specific area of responsibility)." These affiliates are reportedly establishing lateral ties, which would give al-Qa'ida greater staying power should the core in the Pakistan-Afghanistan border region be destroyed.

The question remains, however: How responsive is each affiliate to the center's directives? As with any organization, a subordinate group's degree of autonomy may change with circumstances; moreover, some degree of foot-dragging and independent behavior may be expected. At what point does this exceed normal limits and indicate dysfunction or outright rebellion? Unfortunately, the study of terrorist dysfunction is fairly new and there are no agreed-upon indicators. Data across multiple terrorist groups is only now being collated, and the vast array of variables complicates assessment.[91] The long history of erroneous predictions of al-Qa'ida's dysfunction and collapse by some scholars and U.S. officials suggests that indicators used to date have limited explanatory or predictive power.

Al-Qa'ida in Iraq. AQI was the result of the merger of Abu Musab al-Zarqawi's al-Tawhid wal-Jihad into al-Qa'ida after months of negotiation in 2004.[92] Badly undermined by the Al-Anbar Awakening and Zarqawi's death in a June 2006 U.S. air strike, the organization then saw the April 2010 death of his successor, Abu Ayyub al-Masri. There have been signs of greater political strength, however, and terrorist morale is likely to improve now that U.S. forces have left Iraq. As observers ponder the Islamists' policy objective of refounding a caliphate, the theater of Iraq must always be judged among the likely locales for such efforts, however unsuccessful they ultimately may prove.

Al-Qa'ida began operating among Iraq's Palestinian refugee population by at least 2003, according to Fawaz Gerges. This group was based at the Ain al-Hilweh refugee camp in Lebanon and has worked under the auspices of al-Qa'ida in Iraq.[93]

Al-Qa'ida in the Islamic Maghreb. AQIM is the result of a merger of the Algerian terrorist group, the Salafist Group for Preaching and Combat (GSPC), into al-Qa'ida in 2006.[94] The group operates throughout North Africa and in Western Europe, and has sought to broaden membership by trying to negotiate mergers with other North African terrorist groups. Though largely unsuccessful in this regard, it does work with other al-Qa'ida-affiliated groups throughout Africa who are taking advantage of continent-wide smuggling routes to obtain funds.[95] This cooperation has led to speculation that core al-Qa'ida may look once again to Africa for potential safe haven. In the meantime, African groups provide potential sources of funding, manpower, and expertise for the organization as a whole.

Al-Qa'ida in the Sinai Peninsula. AQSP claimed credit for an August 2011 attack on a police station in the capital of the peninsula.[96] In January 2012, its military arm, Ansar al-Jihad, swore *bay'ah* to Zawahiri. A U.S. intelligence official told *The Long War Journal* in late December 2011 that Al-Qa'ida in the Sinai Peninsula has been establishing ties with Gaza-based Salafist groups and is seeking to coordinate operations with them.[97]

Al-Qa'ida in the Arabian Peninsula. AQAP was formed in January 2009, but arose from the long-standing al-Qa'ida presence in that area. An affiliate in bin Laden's old homelands (Yemen and Saudi Arabia), it has symbolic, sentimental, and strategic value to core al-Qa'ida. Yemen is the likely base for plotters seeking a new caliphate. Indeed, bin Laden was fond of quoting a

hadith that "around twelve thousands will emerge from Aden/Abian helping the cause of Allah and His messenger."[98]

AQAP's operations include publications aimed at American and Yemeni audiences, and several daring, sometimes innovative, attacks against the Saudi and Yemeni governments, Western embassies, tourists, oil facilities, an oil tanker, and Western-bound aircraft. [99] The Saudi government occasionally responds with military assaults, even entering Yemen proper to do so. According to a Council on Foreign Relations analysis, "U.S. intelligence officials have. . . said that, if alive, [AQAP leader Nasir al] Wuhayshi would be a 'top contender' to assume command of al-Qaeda's global network should its leadership in Pakistan suffer defeat."[100]

Alliances

Next in terms of closeness to al-Qa'ida's core are like-minded but independent jihadi groups in various countries. Some of these associations are formal alliances, while others are various forms of cooperative arrangements. They can be the result of al-Qa'ida approaching the group or vice versa. Occasionally some of these relationships have progressed to become the mergers discussed above; all of these groups have some degree of reach into the United States. A brief discussion of the most important of the groups follows.

Afghan Taliban. The Afghan Taliban approached bin Laden shortly after his return to Afghanistan in 1996 and al-Qa'ida has supported the Taliban ever since. The Taliban's objective is to take back Afghanistan and establish an Islamic government under its leader, Mullah Omar, who enjoys immense credibility in most Islamist and Afghan Muslim circles. [101] Al-Qa'ida units fought under overall Taliban command through 2001 and remain closely connected to Omar's group. "Three of the four regional shuras are commanded by Taliban leaders who are closely associated with al Qaeda," according to *The Long War Journal*.[102] Yet despite cooperation and collegiality with al-Qa'ida, the Afghan cleric's focus is on his country; he may never have fully shared the fervent internationalism so important to Zawahiri and bin Laden. Taliban members are nearly all Pashtuns, located in either Afghanistan or Pakistan. The group is responsible for terrorist attacks inside Afghanistan, including numerous attacks on U.S. facilities in Kabul, and against posts along the border with Pakistan.

Pakistani Taliban. The Pakistani Taliban (Tehrik e-Taliban Pakistan or TTP) is best described as a movement with several factions whose goal is to turn Pakistan into a jihadi state. This movement is even closer to al-Qa'ida than the Afghan Taliban, and its support has been critical to al-Qa'ida's survival. Al-Qa'ida forces are integrated with the Pakistani Taliban and together they have fought Pakistani tribes and the army for control of the border region, marched on Islamabad, conducted terrorist attacks throughout the area, and assassinated Pakistani leaders, including former Prime Minister Benazir Bhutto.[103] The TTP's connections in the Pakistani military have raised concerns that it may gain access to the army's arsenal, including weapons of mass destruction.

Kashmiri separatist groups. Al-Qa'ida also has long-standing relations with Kashmiri separatist groups supported by the Pakistani military and intelligence services.[104] This may explain why bin Laden's Abbottabad compound was located near military installations on the border of Pakistani-controlled Azad Kashmir.

Jemaah Islamiya. Jemaah Islamiya (JI) in Indonesia early on developed mutual training with al-Qa'ida there and in Afghanistan in exchange for financial support. The group's former military leader, Riduan Isamuddin (aka Hambali), fought in Afghanistan in 1985, where he met bin Laden and Khalid Sheikh Mohammed.[105] The groups cooperated in planning and executing operations, including the 2002 bombings of tourist spots in Bali, and JI brought to the alliance an operational leader, Yazid Sufat, interested in conducting chemical and biological attacks. Senior operative Umar Patek was arrested in Abbottabad not long before bin Laden was killed. JI's leaders emerged from a madrassa circle (individuals who attended Islamic religious schools) that shares close ideological affinities with al-Qa'ida and the Taliban. Since 2002, governments in Southeast Asia have succeeded in severely degrading the capabilities of JI, but youth are still being recruited into the organization.[106]

Abu Sayyaf. Abu Sayyaf in the Philippines draws upon old Moro separatist and religious differences with the largely Roman Catholic and centralized Filipino society and government. The first leaders of the group fought in Afghanistan and shared in certain JI and al-Qa'ida enterprises from the start; they would still do so today, but Abu Sayyaf has taken a heavy battering from Filipino counterterrorist forces, including the killings of successive leaders. Success of the U.S. and Philippine counterinsurgency strategy—especially that implemented on Basilan Island—has been damaging as well.

Jemaah Islamiya and Abu Sayyaf, it should be noted, have long had a close relationship. According to terrorism specialist Rohan Gunaratna, "They co-exist, they work together, their leaders operate together as one organization. The integration of these two structures is almost complete." If Umar Patek was an important link between the groups, as Gunaratna suggests, it demonstrates how closely they still coordinated with al-Qa'ida at least through the middle of last year.[107]

Al-Shabaab. Al-Shabaab in Somalia has many experienced fighting men, some of whom have had a relationship with al-Qa'ida since 1992. Former al-Shabaab leader Fazul Adbullah Mohammed, an architect of the 1998 East Africa bombings, was killed by Somali security forces in June 2011. Al-Shabaab has arrangements with the pirates that work the waters off Somalia and both groups, the politico-religious and the merely greedy, take easy advantage of the failed-state status of their host. There are also reports that AQAP and al-Shabaab are helping each other, which would be consistent with al-Qa'ida's longtime presence on the coast of both the Arabian Peninsula and Somalia.[108]

Other Arab groups. Al-Qa'ida and associated entities have had cooperative arrangements with other Arab groups that are now seeking to take advantage of the Arab Spring, including several Egyptian groups and the Libyan Islamic Fighting Group. They are looking for new recruits, conducting small attacks, and literally "flying the flag." In Libya, for example, al-Qa'ida is trying to recruit fighters, continues pushing AQIM to send people there, and has hoisted its "black banner" on a building in Tripoli.[109] It would not be surprising if al-Qa'ida was trying to take advantage of the unrest in Syria.

Shi'a groups. Al-Qa'ida leaders admired the Iranian revolution, as did many Arabs, as evidence that corrupt secular regimes could be overthrown.[110] These leaders welcomed relations with Iran and Hizballah in the 1990s. Lebanese Hizballah provided training to al-

Qa'ida members, particularly Egyptians, [111] and during that time al-Qa'ida had some Saudi members who were Shi'a and served as intermediaries with Iran and Shi'a groups in London. There has always been some speculation, even by intelligence officials, that al-Qa'ida participated in the 1996 bombing of the Saudi Khobar Towers housing complex (where U.S. service personnel were billeted), which was perpetrated by Saudi Hizballah, possibly with Lebanese Hizballah or Iranian support.[112] Since that time, however, relations between al-Qa'ida and the Shi'a have been troublesome. In his letter to Zarqawi, Zawahiri wrote:

> This subject is complicated and detailed. … the Shia cooperated with the Americans in the invasion of Afghanistan… … People of discernment and knowledge among Muslims know the extent of danger to Islam of the Twelve'er school of Shiism. … The collision between any state based on the model of prophecy with the Shia is a matter that will happen sooner or later. …. As for the sectarian and chauvinistic factor, it is secondary in importance to outside aggression, and is much weaker than it.[113]

In 2006, Zawahiri gave Lebanese Hizballah support in the war it waged with Hamas against Israel; he had withdrawn this support by late 2007. Zawahiri was frustrated with both groups' political accommodations and declared that al-Qa'ida would be taking over the struggle with Israel.[114]

State Support

Al-Qa'ida arguably lacks official patronage from any state; however, it receives invaluable safe haven in a number of countries in return for which it probably does some favors in return.

Iran. Relations between al-Qa'ida and Iran were initially good, especially with the Islamic Revolutionary Guard Corps, which provided limited training and material support to al-Qa'ida in the 1990s.[115] Relations appear to have deteriorated since 9/11, however, in part over the conflict in Iraq.[116] Since 9/11, Iran has held several al-Qa'ida leaders under "house arrest," but its level of control over those individuals has always been in doubt. In the past two years some of these individuals have shown up in Pakistan to lead operations there.[117] The U.S. government has also accused Iran of allowing a major al-Qa'ida financial network to operate on its territory.[118]

Pakistan. U.S. government officials have accused Pakistan of intentionally harboring al-Qa'ida militants, including bin Laden, and of directly supporting Afghan Taliban attacks on U.S. targets, including the embassy in Kabul. [119] At the same time, Pakistan continues its war with the Pakistani Taliban. One explanation for this is the Pakistani government's long-held aim of creating a government in Afghanistan hostile to India while preventing Islamic extremism from taking over in Islamabad. Pakistan also retains the goal of "liberating" Kashmir and, to that end, supports Kashmiri insurgent groups, some of which are also supported by al-Qa'ida.[120]

Sudan. In the 1990s, the northern Sudanese entity run by Gen. Omar al-Bashir had close relations with al-Qa'ida, but backed off in the face of international pressure. Since then it has firmly limited the independence of Sudan's chief sponsor of bin Laden, the cleric and political leader Hassan al-Turabi. Now a third part of this story may be opening. Before the January 2011 plebiscite in which the southern part of the country voted to secede, al-Bashir spoke openly of adopting an "Islamic constitution" in the north were the south to leave. Al-Bashir's regime (like that of Syria) is especially dangerous because it bridges the troubling Shi'a-Sunni

divide: in the past it was also host to Iranian Revolutionary Guards, and pushed Sunni and Shi'a groups to forge relationships with each other and with Iran.

Ideology

Al-Qa'ida is a revisionist or revolutionary actor bent on upending the status quo and eventually establishing a global Islamic empire, or caliphate, under Islamic law (*sharia*) of an extreme form. Its goals, policy, and practices reflect the fusion of political thinking and religious devotion found in the fanatical world of Salafi jihadism. As Salafi, al-Qa'ida members are scriptural literalists who look to reform modern life on the basis of their understanding of Mohammed's society.[121] As jihadi, they believe this can only occur through force. Al-Qa'ida is pursuing this unlimited policy end with a mind-set of total war subject to no fixed deadlines.

Along the way to the caliphate, al-Qa'ida seeks to crush Israel, create strict Islamic governments in all the Arab states, expel Western influences from Muslim lands, and challenge the international position of the United States.[122] Commitment to the caliphate is especially clear in al-Qa'ida's founding documents as well as the writings and speeches of Zawahiri. Affiliates also speak at times of restoring the caliphate. Al-Qa'ida members have discussed the caliphate emerging particularly in Afghanistan, but also in Egypt, Saudi Arabia, Yemen, Turkey, and even Indonesia.[123] As far back as 1988, al-Qa'ida looked to Afghanistan as the prospective seed of the new caliphate, and quoted *hadith* supporting this view. The "Islamic Emirate" built by the Taliban in its first bid for power in Afghanistan was noted by al-Qa'ida leaders as a possible model for a larger transnational Islamic state. Given this history, al-Qa'ida is unlikely ever to give up completely its ambitions in Afghanistan or Yemen.

Al-Qa'ida's vision includes expanding the reach of the caliphate over time, in ever widening circles, eventually to encompass the whole world. The reason for including the West in this vision, rather than limiting it to Muslim-dominated areas, was articulated by "Ali al-Aliyani" on al-Qa'ida's website in May 2002. He reviewed ancient and medieval Islamic legal rulings on how Muslim rulers should relate to non-Muslims, and acknowledged that normally it would be acceptable to coexist with non-Muslim lands, and end jihad, as long as Muslims remained in a superior position. This superiority would be exemplified by non-Muslims paying tribute—*jizya*—to Muslims. He noted, however, that the West would never accept Muslim domination and payment of the *jizya*, so jihad must continue until all the world is Muslim.[124] This logic is often echoed by al-Qa'ida leaders.

Consequently, the jihadis view current national borders as "artificial." Al-Qa'ida shows special loathing for the 1916 Sykes-Picot Treaty, which defined French and British zones of influence in the Middle East and, for the most part, established the modern map of the region. The treaty's status as a lightning rod for the publicists of Islamism was verified by its denunciation in the Fall 2010 issue of AQAP's *Inspire* magazine.[125] According to al-Qa'ida, the Muslim community, or *ummah*, is the essential political entity; it is destined to overcome and replace the current international system of states. Senior al-Qa'ida member Sayf al-Din al-Ansari wrote that "al-Qaida is a vanguard movement…. …As a group, it is close to the community, cutting across borders and nationalities. It embodies the idea that there is no difference between an Arab and a non-Arab. ...It is not limited by imaginary borders that colonialism imposed."[126]

In supporting this view, jihadis are essentially arguing for offensive jihad. Egyptian Islamist ideologist Sayyid Qutb scoffed at making a distinction between offensive and defensive struggle, as have many other jihadis.[127] Most of them, including bin Laden, go through complex rationalizations to justify their actions as defensive jihad, however. There are probably two reasons for this: 1) offensive jihad can only be justified when there is a caliph (the temporal and spiritual head of Islam); and 2) most modern Muslims do not accept the idea that Islam must be spread by the sword.

Bin Laden and his close compatriots saw themselves as the modern manifestation of ancient mujahidin. The 1996 declaration of war against the United States includes this statement: "The sons of the two Holy Places [Saudi Arabia] are directly related to the life style (Seerah) of their forefathers, the companions, may Allah be pleased with them. They consider the Seerah of their forefathers as a source and an example for re-establishing the greatness of this Ummah and to raise the word of Allah again."[128] Al-Qa'ida's original "guesthouse" in Pakistan was called "al-Ansar" after the companions of Mohammed. Bin Laden exemplified the image of the *Ansar*: personal faith, simplicity, generosity, commitment to spreading Mohammed's teachings, and courage and steadfastness. Bin Laden kept the Qu'ran by his bed, studied Islamic texts and Salafi writings, encouraged piety within his extended family, was generous with his funds, lived the simple life of his followers, and demonstrated courage in battle. Visitors in Afghanistan noted his library and his efforts to grasp ideas, including theories of violent jihad as taught by jihadis from ages past through Sayyid Qutb and Mohammed abd al-Salam Faraj (the latter was instrumental in the creation of Egyptian Islamic Jihad). According to close associates, and evidenced in the tapes by which he transmitted his message to the outside world, faith drove bid Laden on, colored his speech and writing, manifested itself in many of his daily rituals, and guided his decisions. Accounts of bin Laden as a young man suggest that this piety may have turned to fear that he would fail in doing Allah's will, a motivation that spurred his jihadi quest.[129] Conversely, it should be added, almost nothing is written about Zawahiri's personal faith, and his statements and history suggest he is focused on the more political dimension of al-Qa'ida's activities.

Religion colors all life within al-Qa'ida and all decisions. Religious invocations are central to the organization's manuals, press releases, and videos. In a video taped inside al-Qa'ida headquarters in early November 2001, the group's leaders discuss their joy at the events of September 11 in religious terms.[130] Al-Qa'ida justifies suicide terrorism with interpretations of the Qu'ran and other Muslim holy works.[131] Yet another set of evidence is in targeting consistency: "apostate" regimes, fellow Muslims on a "deviant" path, and Jews have been attacked in various ways.[132]

The attitude of the fundamentalist Sunni group toward Shi'a is more complex. Al-Qa'ida has advocated putting off the Sunni-Shi'a confrontation until after the United States is defeated and, in the mid-1990s, bin Laden even advocated working with Shi'a when necessary.[133] As noted, Zarqawi's attacks on Shi'a in Iraq were an aberration that caused al-Qa'ida Deputy Emir Zawahiri in July 2005 to upbraid Zarqawi and order him to cease the attacks.[134]

Al-Qa'ida members speak freely about love of martyrdom for their faith and take risks accordingly. This puts al-Qa'ida leaders in a bind. On the one hand, they need this zeal and, according to their interpretation of scripture, not only can they not legitimately work to dampen it, they must publicly praise it because it emulates behavior lauded by Mohammed. On the other

hand, as noted elsewhere, it results in behavior that occasionally interferes with al-Qa'ida's operational strategy and tactics.

Politically, Salafi-jihadi beliefs manifest as totalitarianism. Al-Qa'ida's political program is vague but consistent with the hallmarks of a modern totalitarian movement, beginning with the assertion of a vanguard leadership reflected in the thinking of 20th-century Islamist ideologists, Sayyid Qutb in Egypt and Abul A'ala Maududi in Pakistan.[135] Totalitarian conceptions also are evident in the practice of the al-Qa'ida subgroups and allies. Of these, the best illustration is the Taliban's rule of Afghanistan from the late 1990s through October 2001. Its writ was absolute and it used *sharia* law to govern all aspects of Afghans' lives, terrorizing the population into living according to its literal interpretation of scripture. The Taliban's political world is especially useful for study because al-Qa'ida itself holds no territory and gives few indications of how it plans to govern.

Al-Qa'ida's totalitarianism is more akin to the communist model than the fascist model; the group does not believe in a "master race" or national destiny, but rather in the unity of all mankind under a common ideology. Al-Qa'ida messages invariably preach fealty to the *ummah*, the community of Muslim believers. Al-Qa'ida leaders often criticize policy or rhetoric obsessed with a single country, and they actively discourage other narrow approaches. They fear nationalism, which is seen as a rival ideology. They also believe in collective leadership; in the early years bin Laden exemplified this belief through the *shura* process and his apparent disinclination to become the next caliph.

The use of the secular terms "ideology," "political," and "totalitarianism" here is not intended to suggest the absence of religious motivation from al-Qa'ida's plans and actions. Indeed, Salafi jihadism reflects a weaving of the political and religious into a single fabric. Al-Qa'ida justifies its existence and purpose as an affirmation of religious devotion. Its interpretation of that devotion demands struggle against those both outside and inside Islam who are defined as threats to al-Qa'ida's aims and operations, which are justified in religious terms. Al-Qa'ida certainly uses its brand of religious thought and practice in a self-serving way,[136] but such belief and use should not be dismissed as merely rationalization. Salafi jihadism provides an integrated, if fanatical, worldview as the basis for al-Qa'ida's goals and action program.[137]

Strategy

Al-Qa'ida's leaders think in grand-strategic terms and have always had a multipronged strategy to create the caliphate. Mark Stout and Jessica Huckabey describe this approach in their study of the "strategic and operational views" of al-Qa'ida:

> Ayman al-Zawahiri…in March 2006…restated the long-standing grand strategy of which al-Qa'ida is merely the most prominent enunciator. The jihadists, he said, should work on four inter-related fronts:
>
> - The first front is that of inflicting losses on the Crusader West, especially its economic structure, which will make it bleed for years…

- The second front is that of expelling the Crusader-Zionist enemy from the lands of Islam, particularly from Iraq, Afghanistan, and Palestine. … They should leave our lands defeated after the collapse of their economies. This way we can set up the Muslim caliphate state on our lands….

- The third front…is the front of work on changing corrupt regimes…

- The fourth front…is the front of popular missionary action. All clerics, scholars, writers, and thinkers of the Muslim nation should play their role in alerting the nation to the danger it is facing, motivating it to return to Islam, working on implementing the laws of sharia….[138]

This strategy is based on al-Qa'ida's understanding of the process of radicalization, which mirrors that of other terrorist groups.[139] In general, the stages in this process are:

- *Joining.* This stage involves taking on a radical idea, not using violence. It includes the process individuals go through from the moment they begin to seek a new worldview, through finding a group, socializing with that group, being indoctrinated, and eventually joining the cause and sometimes a specific group.
- *Nonviolent activism.* After joining a cause, some individuals engage in activities to spread the cause by proselytizing, writing, raising funds, and teaching. Some scholars equate this stage with a sense of freedom to act counter to established authorities and norms.
- *Violence.* The move to violent action entails identification and hatred of an enemy. A range of actions are possible, including sabotage, guerilla war, and even certain terrorist attacks.
- *Terrorism.* At this stage, terrorism becomes the primary means of attempting to influence an intractable and powerful enemy.

This process also makes sense to al-Qa'ida from a doctrinal perspective, as it follows the example of Mohammed. Salafi-jihadi writers, including al-Qa'ida members, often refer to the "phases" or "stages" of Mohammed's attitude and actions toward non-Muslims. These stages are based on his activities in Mecca, the *hijra* (exodus and migration) to Medina, and activities after arriving there.[140]

- Sayid Qutb also emphasized the need for the modern Islamic movement to replicate these stages.[141]
- Sayf al-Din al-Ansari, in a book published on the first anniversary of 9/11, wrote that "local projects may require at stages a 'slow-cooked' approach that avoids confrontation. This is because the local movement is subject to specific conditions and particular goals that impose minute political considerations. The world jihad movement, on the other hand, moves in open conditions and pursues general goals."[142]
- In a late 2005 letter to Zarqawi, Atiyah Abd al-Rahman wrote that "the Islamic theologians are the keys to the Muslim communities, and they are its leaders. We should win them over by keeping quiet, overlooking things, and saying nice things, in spite of disagreement with them in most things both theoretical and practical…. Do not be hasty in reforming and amending the Muslim nation. Do not rush victory over the enemy, for

> the war and our journey are truly long. The important thing is to keep your reputation and that of the mujahidin pure."[143]

The strategy has multiple layers and intermediate goals. What al-Qa'ida does in any particular location or at any particular time is a result of its estimation of what the traffic will bear. Of course, its leaders do not always estimate correctly. Zawahiri had to remind Zarqawi in 2005 that, "The mujahid movement must avoid any action that the masses do not understand or approve, if there is no contravention of sharia in such avoidance, and as long as there are other options to resort to, meaning we must not throw the masses—scant in knowledge—into the sea before we teach them to swim."[144]

Thus, it is not at all contradictory for al-Qa'ida to:

- focus its activities on preaching in one country while organizing guerilla forces in another;
- arrange attacks by the central leadership in one area while working through allies in another; and
- preach one message to one population and a different message to a different population, or change the character of those messages over time.[145]

The pillars of this strategy have been overthrowing "apostate" regimes through violence, spreading the message through media and preaching, expanding alliances, and deterring Western intervention through terror attacks and insurgent operations that inflict unsustainable economic and military losses. Al-Qa'ida does this by trying to keep up the pace of terrorist attacks and guerilla actions against numerous countries; continually adapting media and message; funding, training, and advising radical factions of groups throughout the world; and attempting to deter the West through terror attacks. Its leaders calculate that terrorist attacks can damage Western economies to make conflict too costly or draw Western militaries into conflicts where troop losses would turn populations against their governments' policies. Some members also argue for acquiring weapons of mass destruction to deter the West.[146]

Safe havens are key to this grand strategy. The group must have safe areas in which to train guerilla forces, study its opponents, adapt strategy, plan operations, conduct research and development of weapons and tactics, and build the close personal ties necessary to sustain a militant organization and create alliances. It must also be able to communicate globally in a timely manner. Documents recovered in Abbottabad reportedly show that bin Laden was deeply concerned about the group's loss of safe havens and its insecurity in Pakistan, which inhibited the ability to train, communicate, travel, and recruit. [147]

The key to maintaining safe havens, in turn, is support from, or at least the helplessness of, some states. Afghanistan, Sudan, Pakistan, and Iran have served as primary safe havens for core al-Qa'ida.[148] Pakistan was, and remains, a primary training and lodging area.[149] The Philippines, Indonesia, Somalia, Yemen, Bosnia, Albania, the United Kingdom, and even the United States have served as bases for affiliates or have been the locations of particular activities, such as media operations, document forgery, and training of operatives.[150] Captured documents show that al-Qa'ida had established a cell on the Somali coast in 1997 to create a safe haven to support jihad in Yemen.[151] Yemen—the homeland of the bin Laden family—is a place bin Laden explicitly deemed desirable for training and operations in the early 1990s, so

the renewed and special importance of that country is not surprising. All told, some 60 countries have been the scenes for preparation or actions by al-Qa'ida, according to the U.S. government.[152]

But al-Qa'ida now has few, if any, reliable "liberated base areas" (to use a Maoist term), which hinders its long-term growth prospects. Moreover, increasing international cooperation by state policing and immigration authorities has shrunk the freedom of movement for operatives. Capture during travel is a serious risk.

Al-Qa'ida recognizes this problem and has been working to adapt. It has created some virtual safe havens and is encouraging groups to build terrorist cells, raise money, and engage in other activities in their own communities. *Inspire* magazine's emphasis on individual and homegrown operations doubtless reflects developments since 9/11.[153] This does not mean the group will cease to value or attempt to create physical safe havens which, as bin Laden lamented, are preferable, and perhaps even essential, for some types of activities, including communications, travel, and recruitment.[154]

One jihadi thinker who was often out of favor with bin Laden, Abu Musab al-Suri, recommended creating a system, not a structure, to promote global jihad, something which many commentators have referred to, perhaps erroneously, as a leaderless model. However, his is not the majority view in al-Qa'ida and his recommendations have yet to be put into practice.[155]

With its focus on the creation of a global caliphate, al-Qa'ida's propaganda and diplomatic efforts concentrate on reaching potential supporters, further radicalizing them, encouraging recruits, supporting like-minded groups, and encouraging alliances and mergers. The organization understands the need to tailor its message to different communities, in terms of content and style, taking into account culture, language, and stages of radicalization. Like any propaganda effort, however, al-Qa'ida sometimes overshoots the mark.

Al-Qa'ida's conventional military capability is reserved for traditional defensive jihad—defending Muslim countries from invasion by non-Muslims—and offensive wars where there is some realistic chance of establishing an Islamic state to its liking. In other words, the military is both the first defense and the last offense. The military logistics arm thus focuses on capturing conventional weapons and explosives, buying them from overseas suppliers or, in rare cases, manufacturing them.

The immense numbers of graduates that over the years have been produced by established al-Qa'ida encampments indicate the long reach of the group and the depth of the organization. Graduates have then been able to test themselves, and be tested, in approximately 20 conflicts, including those in Afghanistan, Somalia, Bosnia, Chechnya, and Iraq. Occasionally there also appear recruits from the uniformed services of states, and these additions are both an inspiration to the less trained and a valuable source of expertise and current information about enemy forces.

Al-Qa'ida uses terrorism for the traditional purpose of pressuring more powerful opponents to take or refrain from taking certain actions. Thus, it attacks inside the U.S. homeland in the hope that Americans will deem the losses unacceptable and put pressure on their government in ways that will relieve pressure on al-Qa'ida. This strategy goes back to al-Qa'ida's belief that it

was instrumental in the Soviet decision to withdraw from Afghanistan. It saw the validity of the strategy as reinforced by the U.S. withdrawal from Somalia and the Spanish withdrawal from Iraq. Al-Qa'ida's leaders do not always calculate correctly, however, as seen by the failure of bin Laden and others to anticipate the devastating U.S. response to 9/11.

Al-Qa'ida has a multitiered targeting philosophy consonant with its strategic goals. The central organization has focused on attacking the strategic capability of the United States and its allies, including attacks on embassies, strategic military assets, and financial centers. Affiliates generally focus on the U.S. presence and the local government in their sector, and assist the center in anti-U.S. attacks as needed. In recent years, however, local groups have taken on a bigger role in sponsoring attempted attacks in the U.S. homeland. It is not clear from open sources to what extent they have done so under central direction.

Economic warfare intrigued bin Laden and Zawahiri early on. Bin Laden's 1996 and 1998 fatwas call on Muslims, individually and everywhere, to do damage to "Jews and Crusaders" in their lives and possessions. Damaging the U.S. economy is intended to undermine American "hegemony." A counter-economic strategy drives many al-Qa'ida plots, including the attacks on New York City, the financial heart of the United States; oil-related targets, from pipelines in Iraq to port facilities in Saudi Arabia to the French-owned tanker *Limburg*; and the Luxor Temple in Egypt and other tourist sites. Three months after 9/11, bin Laden claimed that the "economic bleeding" from the attacks continued and he urged allies to "look for the key pillars of the U.S. economy that could be subjected to further assaults."[156] To date, the principal success of the strategy has been indirect—imposing staggering new security expenses on governments and businesses, enormous sums which do nothing for global economic productivity. The AQAP affiliate, in the November 2010 issue of *Inspire*, trumpeted a failed plot ("Operation Hemorrhage") to blow up cargo planes with printer-cartridge bombs as a success because of the costly security upgrades it was said to compel.

It should be noted that al-Qa'ida leaders have been questioning the effectiveness of their strategies, due to U.S. and allied military and intelligence successes, the Arab Spring, and popular rejection of al-Qa'ida's methods (if not its goals). Some leaders point to these failures as the result of errors in judgment fueled by emotion—anger, revenge, zeal, and even fear—instead of rational calculation.

Zawahiri, as seen in earlier statements, appears to have developed a three-track approach to jihad which varies little from bin Laden's: 1) classical insurgency in contested territory where the populace is not radicalized, such as Iraq; 2) no-holds-barred fighting in areas where al-Qa'ida believes it is backed by the population; and 3) terror attacks on strategic Western targets.

Though al-Qa'ida has been under stiff challenge since 9/11, it would be a mistake to count it out just yet. The absence of large-scale attacks does not mean the group has failed, nor does it indicate a lack of strategy. War is characterized by surges of activity and what Lenin called "breathing spaces." There were optimistic experts who just before 9/11 characterized al-Qa'ida's threat as overrated; such errors should be remembered during the terrorists' operational pauses.

Operations and Tactics

Al-Qa'ida is still planning large and expensive operations, but also is exhorting followers to carry out individual attacks. The latter may be less professional and less lethal, but they can have devastating psychological impact. The group thus favors a full menu of targeting options. Each large operation that follows the standard set by the 9/11 attacks signals strength, organization, and professionalism, and can be proclaimed as another step toward inevitable victory. But there also are opportunities for attacks carried out by self-radicalized individuals and small groups. These, too, have proven deadly, and they raise the specter of an undefeated al-Qa'ida with a worldwide presence. These are the attacks emphasized in AQAP's *Inspire* magazine.

In choosing a method for an attack, the pattern of past attacks suggests that al-Qa'ida has distinguished between strategic operations and more tactical ones. In the early years, it reserved for strategic targets multiple, simultaneous attacks using new methods. Al-Qaida is said to still emphasize "the need to consult with central leadership before undertaking large-scale plots, plots directed against a new location or a new class of targets, plots utilizing a tactic that has not been previously sanctioned, such as the use of chemical, biological, or radiological devices."[157] Two prominent examples are the 1998 suicide car bombings against two U.S. embassies in East Africa and, of course, 9/11, which introduced the airplane as a missile against strategic targets, one in New York and one in Washington, D.C. After those attacks, other groups within al-Qa'ida used, or attempted to use, the techniques on lesser targets, though not necessarily in simultaneous blows.

The organization has a strong desire to acquire and use weapons of mass destruction.[158] Bin Laden twice formally pronounced his intention of acquiring nuclear weapons; he said they would be wielded for "Muslim" purposes.[159] To acquire such weapons, the organization sponsored camps in Afghanistan where chemical-weapons experiments and research on biological weapons were conducted, and had a nuclear acquisition program. By mid-2001, the full laboratory Zawahiri and Rauf Ahmed had built in Kandahar was at work on anthrax and had a complement in the anthrax program set up by JI operative and al-Qa'ida associate Yazid Sufaat.[160] More recent reports indicate al-Qa'ida continues to seek chemical, biological, radiological and nuclear weapons. For example, in April 2009, the Office of the Director of National Intelligence informed a congressional committee that,

> We continue to receive intelligence indicating that al-Qa'ida and other terrorist groups are attempting to acquire chemical, biological, and nuclear (CBRN) weapons and materials. We assess al-Qa'ida will continue to try to acquire and employ CBRN material, and that some chemical and radiological materials and crude weapons designs are easily accessible. Al-Qa'ida is the terrorist group that historically has sought the broadest range of CBRN attack capabilities, and we assess that it would use any CBRN capability it acquires in an anti-U.S. attack, preferably against the Homeland. We assess that the death of al-Qa'ida's leading CBRN expert, Abu Khabab al-Masri, [in] July [2008] will cause temporary setback to the group's efforts, but its ability to shift responsibility to other senior leaders and existing trained replacements will enable it to recover.[161]

Outlook

Al-Qa'ida is likely to be around in some form or another for years to come. Al-Qa'ida is over two decades old and, like any terrorist or insurgent organization that has reached such a venerable age, it has organizational strengths that will be hard to overcome, even should its current core leaders be captured or killed. The central leadership is already thinking about where it could move, and no doubt there are discussions occurring, both in the center and at the periphery, about how to handle the loss of Zawahiri, should that occur.

Were the current core leadership to be eliminated, senior and long-standing al-Qa'ida leaders in the regional affiliates would be capable of taking up administrative tasks. Telecommunications and computer technologies are a great help to them in this regard. In addition, there already are increasing signs of direct cooperation between affiliates and a conscious effort to bring newer leaders and groups into the fold, especially in Africa.

Centralized direction probably would continue for some time if members agreed on the successor leadership. Senior members who run the affiliates are steeped in al-Qa'ida doctrine and well aware of the dangers of uncoordinated, essentially random action. They may encounter more difficulty enforcing their directives, however, especially if a single strong leader does not emerge.

Choosing a new leader with full backing of the members would be one of the hardest tasks. Competition over the central leadership, even while Zawahiri is still in charge, could pose significant danger with regard to the command-and-control of weapons of mass destruction, making their use less predictable. Some WMD capability already exists, to varying degrees, at the region level.[162] Motive to use that capability might increase during a leadership struggle. Factions and individuals might try to one-up each other to gain a following. This "outbidding" behavior has been observed in a wide range of terrorist groups; one study found that "[r]eligious terrorist groups show the greatest proclivity to outbid followed by nationalist organizations."[163] In addition, if leaders believed they were in imminent danger of being wiped out, some might be tempted to employ WMD for deterrence or defense. Facing annihilation, a final punishing blow against the enemy also might become attractive for some.

IV. The Potential for Deterring Al-Qa'ida

Given core al-Qa'ida's goals, determination, and methods, a settlement with the terrorist group is all but impossible. Instead, al-Qa'ida is likely to attempt attacks against the United States and other adversaries until it is no longer capable of doing so. Consequently, the deterrence aim examined here is not to prevent all types of attack, but those of gravest consequence, such as attacks with weapons of mass destruction, that may be most susceptible to prevention via strategies of deterrence.

A strategy to deter these types of attacks would be based on apparent al-Qa'ida vulnerabilities and the exploitation of those vulnerabilities to influence the decision calculus of al-Qa'ida leaders. Such a deterrent strategy, if possible, would need to exploit al-Qa'ida perceptions of the risks, difficulties, and costs (including the potential political, financial and organizational costs) of mass-casualty attacks involving WMD. The goal of such a strategy would be to increase the prospects that al-Qa'ida will decide against such mass-casualty attacks given its particular calculation of costs and benefits. A combination of factors—including evidence of the thinking and behavior of al-Qa'ida's senior leaders—suggests that core al-Qa'ida, in principle, may be susceptible to deterrent strategies intended to prevent attacks involving WMD.

Deterrence Appears Possible in Principle

Core al-Qa'ida has displayed characteristics consistent with non-state adversaries which have been deterred. Al-Qa'ida leaders appear capable of being pragmatic when compelled to do so; they may be fanatical in their devotion, but they are careful, and even cautious, planners. Indeed, these leaders might be called "conservative fanatics." They have specific long-term objectives, but no apparent near-term requirement for the realization of those objectives, and they deliberate and debate over proposed attacks and methods to achieve their objectives, specifically weighing the prospective risks, costs, and benefits. These characteristics are key because they suggest that, in principle, there is time and "decision space" for al-Qa'ida to be sufficiently pragmatic for deterrence to operate.

In addition, approval and control of high-consequence operations are centralized. Key al-Qa'ida leaders may not fear death, but they do expend significant effort to remain alive and in control, and they actively seek to reduce operational risks when planning attacks. While some al-Qa'ida operatives are ready to die in the execution of attacks, al-Qa'ida planners clearly seek to minimize the operational risks that might compromise their attacks. And, importantly, al-Qa'ida leaders appear to pay attention to statements and actions by U.S. officials. They watch, listen, and take into account what they learn.

These al-Qa'ida characteristics do not suggest that U.S. strategies of deterrence are certain to succeed against al-Qa'ida. They do suggest, however, that at some times and for some purposes, al-Qa'ida may be susceptible to well-informed and well-executed deterrent strategies.

Specific Objectives

Core al-Qa'ida has had a consistent strategy of using violent jihad to expel the United States from Islamic holy lands, overthrow what it views as "apostate" regimes in the Middle East, and establish a new Islamic caliphate. Zawahiri's previously cited articulation of the strategy is a mix of objectives and means for a war with four "interrelated fronts":

- "inflicting losses on the 'Crusader West,'" especially its economic structure, "which will make it bleed for years";
- "expelling the Crusader-Zionist enemy from the lands of Islam, particularly from Iraq, Afghanistan, and Palestine";
- "changing corrupt regimes which have sold our dignity and pride"; and
- "alerting the [Muslim] nation to the danger it is facing, motivating it to return to Islam, [and] working on implementing the laws of sharia."[164]

Deliberative Planning and Pragmatism

In his book, *Inside Al Qaeda,* Rohan Gunaratna writes that a "hallmark of an Al Qaeda attack is its huge investment in the planning and preparatory stages. To ensure success, Al Qaeda has an elaborate, highly skilled organization for mounting surveillance and reconnaissance of targets."[165] Numerous accounts of deliberative planning by al-Qa'ida have been recorded. These include planning for the aborted 1994 Bojinka plot (a scheme to blow up a dozen airliners in flight), the 1998 embassy bombings in East Africa, the 9/11 attacks, and a variety of operations proposed since 9/11. Computer files and other data gathered from bin Laden's compound following his May 2011 death indicate al-Qa'ida continues to call for operatives to conduct test runs to refine their plans.[166]

Detailed research in support of attack planning appears to be a characteristic of al-Qa'ida. According to an unclassified memorandum by the Central Intelligence Agency,

> Al-Qa'ida is a savvy, experienced terrorist organization that has watched the US for years, and it pays close attention to publicly available information that will help it evade US intelligence. A growing body of reporting indicates that al-Qa'ida planners have learned much about our counterterrorist intelligence capabilities from US and foreign media. Information obtained from captured detainees has revealed that al-Qa'ida operatives are extremely security conscious and have altered their practices in response to what they have learned from the press about our capabilities.[167]

The 9/11 operation illustrates al-Qa'ida's ability to adapt to unexpected events and modify its plans. Two of the potential hijackers failed to obtain sufficient pilot training and several recruits backed out of the mission unexpectedly or were removed by al-Qa'ida leaders. Khalid Sheik Mohammed (KSM; mastermind of the attack), Ramzi Binalshibh (liaison between KSM and the hijackers), and Mohammed Atta (who helped organize the operation and flew one of the aircraft) reassigned participants, recruited replacements for dropouts, and persuaded others to overcome personal animosities for the good of the mission.[168]

According to an Al Jazeera interview with KSM, planning for the 9/11 attacks began about two and a half years before they were executed. KSM said he and other planners first "thought of striking at a couple of nuclear facilities but," showing concern about incurring undue risk,

"decided against it for fear it would go out of control." He went on, "it was eventually decided to leave out nuclear targets for now." [169]

Al-Qa'ida has had to deal with hosts who expressed concern that its operations could bring about a military response from the United States. For example, in 1998, Mullah Omar was reportedly "enraged" at U.S. cruise missile strikes on al-Qa'ida training camps in Afghanistan in retaliation for the East Africa embassy bombings. Bin Laden used a campaign of flattery (including hailing Omar as Islam's new caliph) as well as cash payments to convince Omar to continue to provide security for him in Afghanistan.[170]

A former colleague of bin Laden, Noman Benotman, has described disagreements and debates among al-Qa'ida leaders and between al-Qa'ida and its patrons. He was with bin Laden in 2000 when the 9/11 attacks on the United States were debated and has offered this account of the differences expressed:

> It was clear to me that there was a lack of agreement between the al-Qa'ida leadership both on the initial preparations for the September 11 attacks and on the manner of waging a war against the Americans. Mullah Omar, the Taliban leadership as well as the Pakistanis and the rest of the Arabs exerted pressure on al-Qa'ida: they were all demanding a halt to the war against America (which al-Qa'ida was insistently waging from Afghan soil ever since the establishment of the International Islamic Front for Jihad against Jews and Crusaders in 1998). Leaders in al-Qa'ida tried to solve the problem of how to save Afghanistan from an American response. What I know and what I have seen (through taking part in the infamous Kandahar meetings, which lasted for more than a week in the summer of 2000) is that the main group in al-Qa'ida, which includes bin Laden, felt certain that U.S. forces would not wage a ground war and would not fight them face to face. This was the al-Qa'ida view ever since it returned to Afghanistan (from the Sudan) in 1996. To them, the idea that the U.S. forces would establish a presence on the ground in Afghanistan was unthinkable. To bin Laden, the Americans were "cowards"; in his own words "we tested them in Somalia and they proved they were merely paper tigers."[171]

In planning the 9/11 attacks, Khalid Sheik Mohammed reasoned that he could best influence U.S. policy by targeting the American economy. KSM and Ramzi Yousef brainstormed together about the U.S. economy which led them to choose New York City as the primary target of the attacks.[172] After his capture, KSM told interrogators that he initially planned to hijack 10 aircraft, nine of which would be crashed into targets on both coasts. KSM would be on the tenth aircraft and, after killing all male passengers on board, would land and deliver a speech denouncing a variety of injustices in the Middle East. He reported that the proposal received a lukewarm response from bin Laden, who concluded that the proposal was not practical because of its scale and complexity.

Abd al Rahim al Nashiri, who orchestrated the attacks on U.S.S. *The Sullivans* and U.S.S. *Cole*, maintains that he delayed an attack in the Persian Gulf region because of security concerns.[173] A study by Mohammed Atef, former military chief of al-Qa'ida, conducted while he and bin Laden were still in Sudan, reportedly considered the feasibility of hijacking airplanes and threatening to blow them up in flight to gain the release of imprisoned comrades. They

ultimately rejected the proposal as too complex, and because al-Qa'ida had no friendly countries in which to land the planes and negotiate.[174]

Centralized Control

In a recent study of the evolution of al-Qa'ida's leadership and organizational structure, Ronan Gunaratna concluded, the "'Al Qaeda organization' still operates under an organized structure…[w]ith a clearly defined leadership, membership, and a support base."[175] Its overall leader, the emir, "is involved with operational, strategic, and tactical planning." "This leader possesses religious, operational, and logistical authority over Al Qaeda's activities."[176] The leader also heads the *shura*, the highest decision-making body of al-Qa'ida.[177]

At irregular intervals in the past, affiliates approached core al-Qa'ida for advice, money, and support for proposed operations.[178] Some requests won approval from the core, some ideas were encouraged but with reservations and suggested improvements, and some operations were rejected—as with two plots by Jemaah Islamiyah against the U.S. Navy and its personnel in Singapore in the early 2000s.[179] Little detail is known about the decision calculus in these cases. But in the few known cases where a plan was rejected, it does not appear that the affiliate attempted the operation; this suggests the authority of core al-Qa'ida's leadership and an ability to dissuade followers from certain kinds of actions.

During the late 1990s, according to Khalid Sheik Mohammed, bin Laden was receiving numerous ideas for potential operations. KSM's proposal for attacking U.S. targets with commercial airplanes was only one of many. In early 1999, bin Laden summoned KSM to Kandahar to inform him that al-Qa'ida would support his proposal, which would be referred to as the "planes operation."[180]

When Abd al Rahim al Nashiri had difficulty finding U.S. naval vessels to attack, bin Laden reportedly instructed him to watch the Yemini port of Aden. Nashiri's operatives subsequently attacked the *Cole* at anchor in Aden harbor in October 2002. Centralized control within al-Qa'ida also includes a high degree of compartmentalization. The 9/11 Commission report concluded that only Nashiri and bin Laden knew all the details of the planned operation.[181]

More recently, al-Qa'ida's organizational structure has been described as "a devolved network hierarchy in which levels of command authority are not always clear."[182] Al-Qa'ida exercises command and control mostly in relation to operations external to each affiliate's area of influence and requires subsidiaries to seek approval from al-Qa'ida central before conducting attacks outside their assigned regions. For example, when Zarqawi (a Jordanian) was at the helm of al-Qa'ida in Iraq, he reportedly sought permission to expand his area of operation to include Jordan.[183] Al-Qa'ida has encouraged suicide attacks and other strikes on preapproved classes of targets. But it reportedly still emphasizes the need for consultation with the core leadership regarding plots that are novel in significant ways, including the use of weapons of mass destruction.[184]

No Firm Timeline for Necessary Action

Analysts seeking to understand al-Qa'ida decision making seem to agree that no near-term time constraint forces al-Qa'ida's leaders to reject pragmatism in favor of immediate action. Instead, al-Qa'ida operates with a long time horizon.[185] Lengthy planning, surveillance, and preparation

times have been a characteristic of al-Qa'ida's large-scale attacks. Therefore, no overriding time constraint appears to force al-Qa'ida leaders to abandon pragmatic planning as they conduct cost-benefit calculations concerning how best to achieve their objectives.

Attention to U.S. Statements and Actions

Al-Qa'ida devotes significant effort to following events in the United States and statements by U.S. officials. A review of public remarks by bin Laden from the early 1990s to the early 2000s reveals his awareness of, and responses to, U.S. events. He comments on issues such as the visit to the United States by Saudi Prince Sultan, the Florida recount in the 2000 presidential election, and aspects of the U.S. budget process. He responds to specific statements, such as then-President Bush's challenge to other countries to be "either…with us, or…with the terrorists" and the use of the word "Crusade."[186]

As noted in the strategic profile, al-Qa'ida leaders understand the use of the media. Zawahiri has written that "more than half of this battle is taking place in the media. And that we are in a race for the hearts and minds of our [Muslim] nation."[187] Bin Laden and others have been interviewed by numerous U.S. media sources and AQAP in recent years launched the Internet magazine *Inspire* which, among other things, comments on events in the United States. The November 2010 issue, for example, quotes President Obama, cites a televised Larry King interview with a former CIA analyst, and offers commentary on how effective the thwarted attack with explosive printer cartridges sent by air freight had been in causing the United States to spend millions of dollars in added security measures while the attack itself cost only $4,200. Core al-Qa'ida and its branches have committees which coordinate information and provide it to senior leaders.[188]

Bin Laden's successor, Zawahiri, is well educated. He earned a masters degree in surgery, served three years as a surgeon in the Egyptian army, has traveled extensively throughout Western Europe, and made a brief trip to the United States in 1993. Given their level of attention to, and familiarity with, the United States, Zawahiri and other senior al-Qa'ida leaders seem capable of recognizing U.S. deterrent messages directed their way.

Al-Qa'ida May Be Deterrable

In short, core al-Qa'ida has several characteristics of an adversary that may be susceptible to deterrent strategies on some occasions and for some purposes. The organization has a central leader and a centralized process by which decisions on proposed attacks are made. It has demonstrated prudence and pragmatism in the way it carries out extensive planning, surveillance, and trial runs for complex and important attacks. Some proposed attacks have been rejected as too complex or with a poor likelihood of succeeding. There appear to be no time constraints which would force al-Qa'ida leaders to abandon prudence and initiate attacks which might undermine their long-term goals. In addition, those leaders have demonstrated the ability to learn and adapt. They appear able to eschew actions that could derail pursuit of their long-term goals. The challenge for deterrence is to find vulnerabilities that can be exploited to help al-Qa'ida reach the decision that a mass-casualty attack on the United States would be too risky because it would jeopardize rather than further its goals.

Potential Al-Qa'ida Vulnerabilities

As discussed earlier, the analysis of the case studies in which non-state actors were deterred identified a number of types of vulnerabilities that can be leveraged to discourage attacks by such adversaries. These vulnerabilities include the need for support from other parties, the possibility of demoralization within the ranks, the fear of death or imprisonment, the danger of fissures in the organization, the risk that an operation will fail, and the exposure to retaliation in the wake of an attack. In the discussion that follows, core al-Qa'ida is examined with regard to each of these potential vulnerabilities.

Alienation of the Ummah

Al-Qa'ida needs the support of the community of all Muslims, the *ummah*, for its long-term project of forcing U.S. withdrawal from the Muslim world, overthrowing the "apostate" regimes in Arab countries, and restoring the caliphate. Support of the *ummah*, or at least certain elements of the Muslim community, also is necessary to obtain the money, manpower, matériel, and expertise for carrying out terrorist operations. In addition, local populations must acquiesce to, even if they do not approve of, the safe havens in which al-Qa'ida trains personnel and prepares for attacks. Al-Qa'ida leaders may be wary of taking actions that could antagonize the *ummah* and bring about an end to some or most of these forms of support.

Al-Qa'ida leaders recognize the necessity of support from Muslims. For example, Zawahiri has written that "the mujahed movement [armed jihad] must avoid any action that the masses do not understand or approve if there is no contravention of Sharia in such avoidance, as long as there are other options to resort to."[189] The writings of Abu Musab al-Suri, an al-Qa'ida-affiliated strategist, warn that "loss of connection between jihadi leadership and the people has been a key factor in the failure of jihadi movements."[190]

Many Muslims oppose the killing of civilians, especially coreligionists, by al-Qa'ida. This is one reason opinion surveys in Muslim countries show declining support for the terrorist group.[191] To avoid alienating the *ummah*, maintain the legitimacy of the organization, and perhaps salve the consciences of some of its members, al-Qa'ida sees a need to provide religious justifications for its violent activities. Al-Qa'ida has sought some clerical sanction for each new category of target it takes aim at or type of tactic it employs. The group also has made an effort to answer Muslim criticisms regarding its targets and tactics, usually with theological defenses.[192] One analyst goes so far as to argue that al-Qa'ida "fears [opposing] fatwa more than bullets or Hellfire missiles."[193] A number of Islamic clerics, including some who have supported al-Qa'ida, have, in fact, criticized it for killing civilians in general and threatening to acquire and use weapons of mass destruction in particular.[194] Regarding these pronouncements, one of the clerics has said, "I don't expect a positive effect on bin Laden personally as a result of my statement. It's really a message to his followers."[195]

That the leaders of al-Qa'ida are sensitive to Muslim opposition to attacks on civilians and the use of weapons of mass destruction is suggested by the following episodes.

- One month after the August 1998 bombings of the U.S. embassies in Nairobi and Dar es Salaam, al-Qa'ida sent requests to Islamic scholars for religious and legal justifications for killing civilians.[196] In its public statements, al-Qa'ida attempted to explain away the Muslim casualties from the attacks by arguing that since the bombings occurred on a

Friday, "good Muslims" should have been at the mosque and not at work in buildings near the embassies.[197]

- Abu Hafs al-Mauritani, a senior al-Qa'ida theologian, reportedly advised Osama bin Laden against carrying out the 9/11 attacks on the grounds that they would be contrary to the Qu'ran.[198]
- Soon after 9/11, Ramzi Binalshibh, a key figure in the plot, drafted a justification for the operation titled, "The Truth About the New Crusade: A Ruling on the Killing of Women and Children of the Non-Believers." In it he wrote, "Someone might say that it is the innocent, the elderly, the women, and the children who are victims, so how can these operations be legitimate according to *sharia*? And we say that the sanctity of women, children, and the elderly is not absolute. There are special cases…Muslims may respond in kind if infidels have targeted women and children and elderly Muslims, [or if] they are being invaded, [or if] the non-combatants are helping with the fight, whether in action, word, or any other type of assistance, [or if they] need to attack with heavy weapons, which do not differentiate between combatants and non-combatants."[199]
- In response to Muslim criticisms of 9/11, bin Laden issued a letter in October 2002 outlining an apologia for the attacks, arguing, in part, "whoever kills our civilians, then we have a right to kill theirs."[200]
- Al-Qa'ida consulted with several radical clerics to obtain a *fatwa* that would justify the use of weapons of mass destruction.[201] In May 2003, one of these clerics, Shaykh Nasir bin Hamid al-Fahd, issued a "Treatise on the Legal Status of Using Weapons of Mass Destruction Against Infidels," which sanctioned such use.[202]
- In April 2004, Abu Musad al-Zarqawi, a Jordanian Islamist militant who later headed al-Qa'ida in Iraq, felt compelled to make a public denial that his terrorist group had planned to use a chemical weapon—which could have caused some 200,000 collateral casualties—in an attack on Jordan's intelligence headquarters.[203]
- In July 2005, Zawahiri wrote a letter to Zarqawi criticizing the latter for killing civilians in Iraq in ways that aroused opposition in the country to al-Qa'ida.[204]
- In April 2008, Zawahiri found it necessary to publish a nearly 200-page treatise refuting a book by Sayyid Iman al-Sharif (Dr. Fadl) that made a legal and religious case against violent jihad. (Sharif had been a mentor to Zawahiri in the Egyptian Islamic Jihad terrorist group and early ideologue of the jihadist movement.)[205]
- That same month, in response to questions solicited earlier over the Internet, Zawahiri gave a labored defense of al-Qa'ida attacks that resulted in Muslim civilian casualties. (One questioner had asked, "Excuse me, Mr. Zawahiri, but who is killing with Your Excellency's blessings the innocents of Baghdad, Morocco and Algeria? Do you consider the killing of women and children to be Jihad?")[206]

This evidence does not, however, demonstrate that concern about alienating the ummah is a real vulnerability that can be exploited in a way that impedes an al-Qa'ida mass-casualty attack. A good deal of the Muslim opposition reflects revulsion at the harm done to *Muslim* noncombatants, not the attacks against non-Muslim civilians. (The questioner cited above, for example, went on to say, "Why have you—to this day—not carried out any strike against Israel? Or is it easier to kill Muslims in the markets?") Broad support from Muslim populations may be needed to achieve the distant strategic aims of overthrowing current Arab regimes and establishing a new caliphate, but not to continue terrorist operations, including a mass-casualty attack. Al-Qa'ida leaders seem prepared to sacrifice a significant level of Muslim support in the pursuit of more immediate ends. When they do arouse major criticism from the Muslim

community and members of the *ulema* (Muslim scholars and religious leaders), they appear content to respond with their own legal and religious justifications or those of friendly clerics. Given that it sees itself as a vanguard that knows what is best for Muslims, the al-Qa'ida leadership may discount any prospect of an adverse reaction by the *ummah* to a mass-casualty attack, especially in light of the fact that its reputation with most Muslims already is at a low ebb.

Loss of Support From Specific Groups

Withdrawal of support from particular aiders and abettors could have a more direct effect on the willingness and ability of al-Qa'ida to mount a mass-casualty attack. These parties include militant groups providing core al-Qa'ida with safe haven in Pakistan, financial supporters of the organization, and those who might aid the outfit in its pursuit of weapons of mass destruction.

Militant groups. In theory, the United States might find ways to pressure militants allied with al-Qa'ida who in turn might discourage a mass-casualty attack by the group. The primary safe haven of core al-Qa'ida is in the Federally Administered Tribal Areas (FATA) of northwest Pakistan. From there al-Qa'ida contributes to the insurgency in Afghanistan and prepares for attacks outside the region. It receives refuge, training grounds, and other forms of support from militant groups in the FATA, including the Afghan Taliban, the group seeking to regain by force the power it lost after the U.S. invasion of Afghanistan; the Tehrik-i-Taliban (TTP) or Pakistani Taliban, an umbrella organization of militant groups fighting against the governments in both Islamabad and Kabul; and the Haqqani network, a Pakistan-based Afghan militant group and criminal organization involved in the Afghan insurgency.

These groups have ties with each other as well as with al-Qa'ida. But they have separate identities and their aims are not entirely coincident with those of al-Qa'ida. For example, their agendas generally are focused on the immediate region, whereas al-Qa'ida has global objectives. They are less motivated to fight the United States outside their neighborhood. (There is some evidence, however, that years of close proximity with al-Qa'ida may have infected the TTP and Haqqani network with an interest in carrying out attacks against the U.S. homeland.)[207] Conceivably, there might be opportunities for exploiting the divisions between al-Qa'ida and its hosts to compel the latter to rein in the former.

Here it might be recalled that prior to 9/11, Taliban leaders were more worried about U.S. retaliation than was Osama bin Laden. They had been told at least twice by U.S. officials that they would be held accountable for al-Qa'ida's actions.[208] They were, however, unable to persuade bin Laden to forgo the attacks, though the heads of al-Qa'ida's religious and security committees did argue against a go-ahead because of the opposition from Taliban leader Mullah Omar.[209] According to one report, representatives of the Taliban went so far as to try to warn the United States about a week before the attacks.[210] After the attacks, the Taliban refused to comply with U.S. demands to hand over bin Laden and his men, despite threats of military action, including some conveyed through sympathetic Pakistani officials.[211]

Although there are reports of differences between the Taliban and al-Qa'ida,[212] Mullah Omar and his associates may be similarly resistant to future U.S. threats intended to coerce the Taliban into putting a brake on attempts by al-Qa'ida to conduct catastrophic attacks against the U.S. homeland. Whether because of Islamist solidarity, popularity of al-Qa'ida among some factions, benefits the relationship with al-Qa'ida does confer, or fear of the consequences of

abandoning an ally, the Taliban may remain unwilling to play such a role. Coercing the Haqqani network to coerce al-Qa'ida also could prove unavailing. Senior leaders of the group on a number of occasions have spoken of their close ties with al-Qa'ida.[213] And, to date, neither the Haqqani network nor the Afghan Taliban "has publicly disavowed ties [with al-Qa'ida] despite sustained counterterrorism pressure."[214]

Despite the fact that al-Qa'ida's safe haven is currently on Pakistani soil, there may be little Islamabad can or will do in support of actions that would help prevent a mass-casualty attack against the United States. Pakistan exerts only limited control over the FATA. It has little appetite to conduct what have proven to be costly military operations against militants in the region. Although it has cooperated with the United States against al-Qa'ida, the Pakistani government, and, in particular, the Inter-Services Intelligence Directorate, treats the Afghan Taliban and Haqqani network as "hedges" and "proxies" to influence the course and outcome of the Afghan conflict and help keep India in check.[215] Finally, U.S. leverage with Pakistan may be limited in this regard. Repeated warnings from the United States to abandon support for militant groups have had little effect.[216] And the need for the assistance of Pakistan in other areas related to Afghanistan may limit how hard it can be squeezed.

Financial supporters. "No terrorist or extremist activities can take place without the availability of financial resources," notes a report by Europol, the criminal intelligence agency of the European Union. "[A]ll organizations need funds for their daily expenses, including salaries, training, logistics, websites, travel and other expenses."[217] Lack of funds may impair terrorist operations. For the 1993 World Trade Center bombing, for example, ringleader Ramzi Yousef and his associates had to assemble a smaller bomb, forgo adding sodium cyanide to the device, and accelerate the timing of the attack, all due to a money shortage. Discount coupons were used in renting the truck that carried the bomb, and the investigation of the attack was aided when one of the plotters attempted to recoup the deposit fee while claiming the vehicle had been stolen. Two years after the attack, as Yousef was being flown back to New York following his capture in Pakistan, a law enforcement agent pointed to the twin towers and said, "They're still standing." "They wouldn't be," Yousef replied, "if I'd gotten more money." (A portion of the funding for the plot was provided by Khalid Sheik Mohammed, Yousef's uncle; other sources of funding are less clear).[218]

For the funds required to sustain the organization and its activities, al-Qa'ida relies on contributions from wealthy individuals in Saudi Arabia and other Gulf countries, donations to mosques and charitable groups that have been diverted to its coffers by sympathetic clerics and administrators, proceeds from criminal activities, money from affiliates, and, more recently, even payments from its recruits.[219] The United States, other countries, and international organizations during the last decade have taken a number of steps to stanch the money flow to al-Qa'ida, including prosecuting and freezing the assets of those aiding the group.[220] More could be done, but the measures to date appear to have contributed to putting al-Qa'ida in dire straits financially. Terrorist specialists at the Treasury Department report that in early 2010 "al-Qa'ida's senior leaders…lamented that al-Qa'ida was experiencing great financial hardship. …al-Qa'ida…was struggling to execute terrorist attacks against the U.S. homeland and Western interests."[221]

While terrorist plots generally are relatively inexpensive (less than $10,000 for the failed Times Square bombing and $400,000-500,000 for 9/11, for example),[222] starving al-Qa'ida for funds

could have an impact on plans to acquire and use a nuclear or radiological weapon. Such a weapon would be expensive; in 1994, al-Qa'ida was prepared to pay $1.5 million for some (fake) uranium,[223] and in 2001, Zawahiri talked about spending $30 million to obtain Soviet "suitcase bombs."[224] Both are considerable sums, given that in the years before 9/11, al-Qa'ida spent an estimated total of $30 million annually, with $10-20 million of that amount paid to the Taliban.[225] Al-Qa'ida might not have the money needed to buy or build a bomb, and if it did, it might be discouraged from doing so by the associated opportunity costs (fewer funds for strengthening the organization or supporting plots for smaller-scale attacks). It should be noted, however, that one of al-Qa'ida's top leaders, Sayf al-Adel, once told key operatives in Saudi Arabia that "no price was too high to pay" to purchase nuclear weapons.[226]

Were al-Qa'ida to spend what was necessary to acquire a nuclear weapon, its risk propensity regarding use of the weapon might be low; al-Qa'ida leaders would be loath to see such a scarce and expensive asset wasted in a failed attack. This could be a factor in favor of deterring nuclear use by the terrorist group.

Facilitators. To acquire a weapon of mass destruction, al-Qa'ida would need the help of various "facilitators"—suppliers, smugglers, insiders, middlemen, technical specialists, and the like. In its efforts to obtain WMD, al-Qa'ida, for example, has been in contact with several Pakistanis with scientific-technical backgrounds.[227] Facilitators might be induced or coerced to abandon their support to al-Qa'ida. This could make WMD acquisition more difficult, costly, time-consuming, or hazardous for the terrorists.

In 2002, a ranking CIA official flew to Sudan in an unsuccessful attempt to persuade a Syrian physicist and an Iraqi agronomist, both of whom had direct ties to bin Laden, not to aid al-Qa'ida in its pursuit of nuclear or biological weapons and thereby prevent "the indiscriminate deaths of thousands of innocent women and children."[228] With regard to the coercive approach, the threatened punishment for some facilitators would have to be perceived as harsher than that imposed on A.Q. Khan and members of his network, who have suffered only moderate penalties for their assistance to the North Korean, Iranian, and Libyan nuclear weapons programs.[229] (Worth mentioning are intelligence reports that while Khan was willing to assist the rogue states, he "rebuffed several of [bin Laden's] entreaties, although it was not clear why.")[230]

Loss of support from specific groups, in sum, could deny or further endanger the operational base from which al-Qa'ida would plan and prepare for a mass-casualty attack, impede the acquisition of a weapon of mass destruction, and make it more difficult to secure the funding needed to underwrite a WMD attack, all of which could help discourage or prevent al-Qa'ida from undertaking such an operation.

Demoralization Within the Organization

Effective counterterrorism operations against a terrorist group, especially over a prolonged period, can engender a climate of apprehension, isolation, frustration, and dissension within the group. According to a former director of the Central Intelligence Agency, "When we and our allies take [senior al-Qa'ida leaders and mid-level operatives] off the battlefield [by killing them], there's a real psychological effect as well. Those who remain are feeling some heat and are not happy about it. By making a safe haven feel less safe, we keep al-Qa'ida guessing. We make them doubt their allies, question their methods, their plans, even their priorities."[231] This climate

can give rise to defections from the organization and demoralization among those who remain. In addition, disillusionment with strategy and tactics, lack of respect for the leadership, differences over the conduct of operations, disputes over money, and ties with family and outside friends have caused operatives to quit. Defections and demoralization could hamper the ability and willingness of al-Qa'ida to carry out a mass-casualty attack.

Some of those who have quit al-Qa'ida and affiliated organizations, along with the reasons for their departure, are listed below.

- *Jamal al-Fadl:* Al-Fadl, a Sudanese national, was an early al-Qa'ida recruit. He was involved in the aforementioned attempt to buy uranium for the group and also in its chemical weapons effort. Resenting that his pay was lower than that of Egyptians in al-Qa'ida, he embezzled over $110,000 and fled the group, becoming a source of intelligence for the United States and testifying against the operatives charged with the 1998 East Africa embassy bombings.[232]
- *L'Houssaine Khertchou:* A Moroccan who joined al-Qa'ida in 1991, Khertchou served as bin Laden's personal pilot and belonged to the cell responsible for the Nairobi embassy bombing. He became embittered and left the organization after his request for $500 for his wife's Cesarean section was rejected by a bin Laden aide, while al-Qa'ida paid for a trip to Yemen by several Egyptians so they could renew their passports.[233]
- *Omar bin Laden:* Omar, one of Osama's sons, quit al-Qa'ida because he opposed the killing of civilians. He called the 9/11 attacks "craziness" and said of al-Qa'ida, "Those guys are dummies. They have destroyed everything, and for nothing. What did we get from September 11?"[234]
- *Sayyid Imam al-Sharif:* Al-Sharif (Dr. Fadl), who once headed the Egyptian Islamic Jihad and whose writings were used by al-Qa'ida to justify its actions, more recently has written from prison in opposition to al-Qa'ida, arguing against, for example, the killing of non-Sunni Muslims and non-Muslims in Muslim countries. As noted earlier, Zawahiri felt compelled to issue a lengthy written rebuttal to Fadl's arguments.
- *Noman Benotman:* Benotman led the Libyan Islamic Fighting Group (LIFG), an al-Qa'ida-associated group, until 9/11. He warned bin Laden against carrying out the attacks and left the LIFG out of fear that the United States would retaliate against it as well as core al-Qa'ida.[235] Benotman now works at the Quilliam Foundation, a London-based counterterrorism think tank funded by the British government.
- *Nasir Abas:* A regional commander in al-Qa'ida's Indonesian ally Jemahh Islamiyah, Abas rejected bin Laden's fatwa calling for attacks on civilians, objected to the 2002 Bali bombings of civilian targets, and has said that he set up training camps for the purpose of guerilla warfare only, not attacks against civilians. After his arrest, he renounced his terrorist affiliation and cooperated with authorities.[236]
- *Abu Jandal:* Abu Jandal, bin Laden's personal bodyguard, likewise cooperated with the authorities after his capture because he was appalled by the (incorrect) report that 200 Yemenis were killed in 9/11.[237]
- *Abu Hadifa:* Hadifa, a top commander in al-Qa'ida in the Islamic Maghreb, abandoned the terrorist cause after deciding that the jihad in Algeria lacked legitimacy.[238]

In addition, at least three al-Qa'ida operatives have dropped out of planned attacks:

- Two Saudis, *Mushabib al-Hamlan* and *Sa'ud al-Rashid*, trained for the 9/11 attacks but ultimately decided not to participate. Both either had second thoughts or ended their involvement because of family concerns.[239]
- *Sajid Badat*, a British Muslim of Malawi descent, traveled to an al-Qa'ida camp in Afghanistan where he, like Richard Reid, was trained to "shoe bomb" aircraft on transatlantic flights. After returning to Britain and his family, Badat abandoned his assignment and later was arrested.[240]

Relevant to these three cases is the finding from one survey of those who have quit al-Qa'ida or associated groups: "It appears that terrorist cell members who maintain contact with friends and family outside the organization are more likely to withdraw."[241]

Possible opposition to WMD within the ranks of al-Qa'ida could itself be a source of dissension. One incarcerated Middle East terrorist told interviewers that while he would like his organization "to have arms that could wipe out a village or a neighborhood," he was frightened by "[a]tomic and chemical weapons, and things like that" and "would worry about their impact and consequences of using them." Similarly, a jailed member of Islamic Jihad told them, "Under Islamic law, mass destruction is forbidden. For example, chemical, biological or atomic weapons damage the land and living things, including animals and plants, which are God's creations. Poisoning wells or rivers is forbidden under Islam."[242]

Organizational Fissures

Strategic, organizational, and ethnic divisions within al-Qa'ida could hamper efforts to plan, prepare for, and prosecute a mass-casualty attack. There might be steps the United States could take to exacerbate these divisions as part of a larger strategy for deterring an attack.

Questions about the competence of the leadership and the wisdom of a mass-casualty attack, for example, could make such an operation more difficult to undertake. In a study of debates and divisions within al-Qa'ida, the West Point Combating Terrorism Center found that "concern that jihadi violence will produce strategic failure forms the basis for most internal critics [sic] of jihadis, not the legitimacy of various jihadi tactics and strategies."[243] During bin Laden's tenure as emir, members of al-Qa'ida criticized his judgment and leadership abilities. In a 2002 letter to "Mukhtar" (KSM), "Abd al-Halim Adl" (probably Sayf al-Adel) complained that bin Laden ignored criticism, tended to "move without vision," and was responsible for al-Qa'ida having "gone from misfortune to disaster" with a series of setbacks in East Asia, Europe, America, the Horn of Africa, Yemen, the Gulf, and Morocco.[244] Zawahiri lacks his predecessor's charisma and in fact has been a divisive figure within the organization. His decisions, whether about attacks against the United States or other matters, are likely to be more open to internal challenge than those made by bin Laden. In light of the replacement of bin Laden with Zawahiri, memories of the unexpected fiasco after 9/11, and the failure of several operations in recent years, plans by the top leadership to mount a mass-casualty attack against the United States probably would be greeted with more internal opposition than what occurred during the deliberations before the 2001 attacks.

Disputes over compensation and financial malfeasance have been other sources of trouble within al-Qa'ida; the danger of financial corruption, whether real or imagined, could be an obstacle to pursuit of a nuclear or radiological weapon. Jamal al-Fadl and L'Houssaine Khertchou, mentioned above, are two known examples of operatives who left the organization because of what they perceived to be inadequate financial support. Al-Qa'ida's strict cost-accounting suggests real concerns about corruption.[245] Obtaining suitable nuclear material and building a radiological dispersal device or improvised nuclear explosive, or purchasing a complete nuclear weapon, could, as noted earlier, entail the expenditure of hundreds of thousands or millions of dollars. Al-Qa'ida leaders could not be confident that such a large sum of money would be spent for the intended purpose. Here the al-Fadl tale would have to be a cause for worry. Al-Fadl was involved in the 1994 attempt in Sudan to purchase uranium for a nuclear device. Soon afterward, he began embezzling tens of thousands of dollars from the organization. And in 1996, he walked into a U.S. embassy and "provided a major breakthrough of intelligence on the creation, character, direction, and intentions of al-Qaeda."[246] Who could guarantee the next "al-Fadl" (or "al-Fadl and associates") would not betray the organization and pocket the money or resell the material or bomb to another buyer?

It might be added that any party from whom al-Qa'ida made a nuclear purchase would, by definition, be criminal. Since there is no honor among thieves, al-Qa'ida leaders would always face the risk of being scammed. Indeed, al-Qa'ida has been "scammed a number of times" in fraudulent nuclear deals.[247] While the danger of theft or fraud probably would not be sufficient to preclude al-Qa'ida from seeking nuclear capabilities for a mass-casualty attack, it would be an added risk militating against the endeavor.

Compartmentalization, an intentional fissure in the administrative structure of the organization, could further complicate efforts by al-Qa'ida to acquire and use a weapon of mass destruction. Within the organization, the Special Operations Unit, "a special and discrete apparatus," is responsible for "initiation of external operations [including those against the U.S. homeland] and all the different aspects (operational and logistical) of supporting them."[248] The WMD Subunit (or Nuclear Weapons Section) "seems…responsible for all the different aspects of non-conventional warfare";[249] WMD-related activities are strictly compartmented.[250] In the past, operations given the go-ahead "would be assigned to a carefully selected clandestine cell, headed by a senior al Qaeda operative who reported personally to Bin Ladin."[251] The degree to which these groups within al-Qa'ida would coordinate preparations for a WMD attack is unclear. Typically, while compartmentalization benefits operational security, it can come at the expense of efficiency. The costs of compartmentalization often include duplication of effort; poor coordination; mistakes due to lack of access to relevant information, advice, and expertise; corruption; and bureaucratic rivalry. These problems could make a WMD program more difficult for al-Qa'ida to pursue.

Differences in the interests of core al-Qa'ida, which are global, and those of its affiliates, which are predominantly local, could lead the affiliates to discourage the core from launching a mass-casualty attack with WMD if they thought they would pay a high price. This possibility is suggested by a number of past episodes. After bin Laden announced the "Front for Jihad Against Zionists and Crusaders," members of the allied groups, Egyptian Islamic Jihad and Egyptian Islamic Group, "suffered significant personnel losses…as American security concerns led to the arrest of many of the leading members of these organizations that had found asylum in Europe."[252] In a meeting in Kandahar in the summer of 2000, Noman Benotman of the Libyan

Islamic Fighting Group "made a clear-cut request for [bin Laden] to stop his campaign against the United States because it was going to lead to nowhere. [B]ut they laughed when [he] told them that America would attack the whole region if they launched another attack against it."[253] (In an earlier episode, the al-Qa'ida leader essentially sold out the LIFG to the Sudanese government.)[254] After 9/11, the leadership of the Moro Islamic Liberation Front (MILF) in the Philippines "distanced itself from al-Qa'ida, recognizing that the global and anti-American aims of al-Qa'ida were at cross purposes with the MILF's local objectives."[255] As a result of opposition to an attack, affiliates might withhold support they had provided to core al-Qa'ida. This would be a potential disadvantage the leadership of the core might have to take into account in its planning for an attack.

One other fissure—ethnic tensions—is worth mentioning. Bin Laden feared al-Qa'ida's enemies might exploit these tensions to weaken the organization. A notable problem within core al-Qa'ida has been the division between Egyptians (who, it might be noted, have been the strongest proponents of acquiring WMD)[256] and other groups. The Egyptians have been criticized for exercising disproportionate influence and having control of key committees. Abu Jandal, bin Laden's personal bodyguard, wrote in his diary that "he often had to intervene and mediate among various nationalist groups within Al Qaeda. …Non-Egyptian members resented the dominance of their Egyptian counterparts and occasionally implored bin Laden to rectify the imbalance."[257]

Some of these tensions have had serious consequences. For example,

> in 2005, after the capture of senior al-Qa'ida operative Abu Faraj al-Libi, it was revealed that Central Asian jihadis, a contingent of whom have established a foothold in the Waziristan tribal areas, provided the information to Pakistani intelligence that led them to al-Libi. Bad blood generated by the chauvinistic disdain for Central Asia jihadis displayed by Arab al-Qa'ida personnel in the region had led captured Uzbek, Tajik and Chechen jihadis to provide information on al-Qa'ida's operations, leading to a series of raids and arrests that ultimately led to al-Libi's capture.[258]

Ethnic tensions could lead to similar betrayals that could compromise plans and preparations for a mass-casualty attack.

Death or Imprisonment of Al-Qa'ida Members

Death or imprisonment are two forms of physical harm that might be used as threats to deter al-Qa'ida leaders from ordering a mass-casualty attack or operatives in the organization from carrying out an attack.

Top leaders of al-Qa'ida appear to value their own survival. The evidence is the many precautions they take to reduce the likelihood they will be captured or killed. This may reflect the basic instinct for self-preservation,[259] but it also may be something more: a felt need to stay alive for the sake of the organization and its cause. This broader survival need may be the reason they try to avoid death, even if they are not afraid to die. (Al-Qa'ida is always able to fill its top ranks, despite the risks to those who occupy leadership positions.)[260] When he seemed cornered in Tora Bora in December 2001, bin Laden contemplated martyrdom, writing in his last will and testament, "Allah bears witness that the love of jihad and death in the cause of Allah

has dominated my life and the verses of the sword permeated every cell in my heart."[261] Yet when he had the chance, he escaped to continue the fight rather than make a last stand.

Though they want to live, al-Qa'ida leaders may conclude that the anticipated gains the organization and cause would reap from a mass-casualty attack would outweigh the risk to themselves from U.S. retaliation, especially if the leadership succession process was likely to yield able replacements in the event members of the top echelon were eliminated.

While al-Qa'ida leaders prefer life to death, they also appear to prefer death and martyrdom to indefinite incarceration. Zawahiri was tortured and humiliated during his three years in an Egyptian prison. When asked by another prisoner how he could ever confess to involvement in the assassination of President Anwar Sadat knowing that it would mean execution, Zawahiri replied, "The death penalty is more merciful than torture."[262] Both Khalid Sheikh Mohammed and Ramzi Binalshibh at their arraignment before the Guantanamo military tribunal expressed their desire for "martyrdom" when told by the judge they faced execution if convicted. "Yes, this is what I wish, to be a martyr for a long time," KSM said. "I will, God willing, have this, by you." Binalshibh likewise avowed, "If martyrdom happens today, I welcome it. God is great. God is great. God is great."[263] Before carrying out his part of the 9/11 attack, Mohammed Atta reportedly prayed, "Spare me, O Lord, a lifetime in shackles and irons."[264]

Mid-level operatives and foot soldiers similarly appear to fear long imprisonment more than death in battle. The readiness to face death is indicated by the little trouble al-Qa'ida has in recruiting members for "martyrdom operations." With regard to the threat of imprisonment, members

> fear the middle ground between death and a humane Western legal system: their repatriation to Egypt, Jordan, Saudi Arabia, Syria, Turkey or any number of countries where the respect for human rights is often lacking. As demonstrated by postings on jihadist web forums…there is significant concern among al-Qa'ida's rank-and-file about the potential pain and suffering at the hands of interrogators in those countries. This, in turn, impacts their courage and commitment to actions that support al-Qa'ida's ideology.[265]

Suicides among detainees also indicate there are al-Qa'ida members who would rather die than remain in prison, although there is evidence that at least some suicide attempts at Guantanamo were tactical moves intended, for example, to increase pressure to close the facility.[266]

It should be pointed out that families and friends may fear the consequences of their ties with al-Qa'ida members and that this fear could be exploited to undermine al-Qa'ida activities directed toward mass-casualty attacks. In this regard, it is noteworthy that in 2009, the Saudi authorities received "60-70% of information about al-Qa'ida suspects…from relatives, friends and neighbours, not from security agencies or surveillance."[267]

Operational Failure

With a successful mass-casualty attack, al-Qa'ida leaders would hope to inflict devastating economic pain as well as human suffering on the United States, pressure the United States to back off from its military operations against the group, promote domestic opposition in the

United States to American military presence in the Muslim world and support for "apostate" regimes, and increase the status and strength of the organization.

On the other hand, an unsuccessful operation—were the failure known to the world—could harm al-Qa'ida in several ways. Al-Qa'ida might be seen as a "weak horse" (in explaining the purpose of the 9/11 attacks, bin Laden said, "when people see a strong horse and a weak horse, by nature, they will like the strong horse"),[268] making the organization look less capable of serving as the instrument for establishing a new caliphate. Al-Qa'ida's leadership position in the Islamist movement might be undermined. Support among the *ummah* might continue to decline. Financial supporters might be reluctant to continue betting on a "losing horse." And would-be recruits might abandon the jihadist path or join other terrorist groups.

In addition, demoralization within al-Qa'ida might increase. The martial prowess and technical proficiency of the organization could be called into question by the failure. The ranks might lose respect for the leaders. The absence of success might be taken as a sign of Allah's disfavor (or simply acquiesced to as a manifestation of his will). And the failed operation might become a source of dissension within the group.

To avoid these adverse consequences—and, of course, to meet attack objectives—al-Qa'ida devotes great care to planning and preparing for its operations. Planning begins with the requirement for a high probability of attack success. The al-Qa'ida leadership "really likes to be 100-percent sure that a strategic operation [like 9/11] is going to work," according to a former intelligence analyst who has carefully studied the group for many years.[269] For lesser operations, a 75-percent probability of success is sufficient.[270] As noted earlier, a high probability of success probably would be especially important for a mass-casualty attack involving the use of a nuclear weapon. Whether built by al-Qa'ida or obtained through purchase or theft, the weapon would be a precious commodity. Moreover, the organization would have high hopes invested in an attack of this sort. Al-Qa'ida leaders would want to avoid at all costs the failure of such an operation.

The need to assure success entails years of planning and preparation for operations. Plotting the East Africa embassy bombings took five years.[271] The October 2000 attack on U.S.S. *Cole* was four years in the making.[272] And planning for the 9/11 attacks extended over more than two years.[273]

In an effort to minimize uncertainty and risk, the leadership demands extensive intelligence on targets designated for attack, target vulnerabilities, and security measures intended to protect targets. "Just as in any other organization," one analyst comments, "the fear of taking action based on faulty intelligence is unavoidable in al-Qa'ida, where leaders constantly worry about the unknown when planning their operations. …one finds a consistent drumbeat of appeals for intelligence from al-Qa'ida's leaders throughout the online discussion forums frequented by jihadist supporters and sympathizers."[274] Examples of this detailed surveillance are casing reports on financial institutions in New York and Washington that U.S. intelligence obtained in 2004. The Director of Central Intelligence at the time, George Tenet, has written that,

> What was noteworthy about the reports was their specificity and attention to detail regarding the buildings themselves, perceived structural deficiencies, the location of

> security, and the types of alarms in specific locations within the buildings. The reports were written as though produced by an engineering consulting firm and were of a quality consistent with what a sophisticated intelligence service might produce.[275]

For the 2006 plot to blow up seven transatlantic airliners, one of the operatives "downloaded security advice from Heathrow Airport's website about items that were restricted as hand luggage."[276]

To reduce complexity and thereby increase the prospects for success, operational plans sometimes are revised. The 9/11 plot is a case in point. The plan originally included the destruction of airliners over the Pacific as well as the East Coast attacks, but bin Laden canceled the Pacific part "because he believed it would be too difficult to synchronize the hijacking and crashing of flights on opposite sides of the globe."[277] A few months after 9/11, Khalid Sheikh Mohammed reacted with skepticism to Jose Padilla's plan to detonate a radiological weapon in the United States and encouraged him to undertake an easier, alternate plot in which multiple high-rise apartment buildings in a single city would be blown up by using the natural gas supplied to units in those buildings.[278]

Plans also are modified to evade security measures. For example, KSM had planned to launch a "second wave" of hijacked airliner attacks against the United States in the aftermath of 9/11, but decided to strike the United Kingdom instead, partly because of "the United States' post-11 September security posture"[279] In 1995, Zawahiri, then the leader of Egyptian Islamic Jihad, ordered the bombing of the Egyptian embassy in Islamabad. He originally wanted to attack the U.S. embassy, but shifted targets because, in his words, "after extensive surveillance, we decided that hitting the U.S. Embassy was beyond the team's capability."[280]

As another measure to increase the probability of success, rehearsals are conducted before the execution of attacks. Thus, in the month prior to the 9/11 attacks, several tests were carried out to investigate airport security and practice parts of the plot.[281]

Once an attack has been executed, after-action reports are prepared as a means of improving performance in future attacks. The reports are done by "different people, at different times, with different agendas" and generate "internal wrangling over lessons learned."[282]

Preattack preparation for the 1998 bombing of the U.S. embassy in Nairobi is a good overall example of the thoroughness of al-Qa'ida's planning. Below is a description of the plotting for the Nairobi attack, provided by an FBI agent who interviewed Ali Mohammed, one of the planners. (Mohammed was arrested by U.S. authorities a month after the embassy bombings were carried out.)

> When bin Laden decided to attack the U.S. Embassy in Nairobi, Ali Mohammed conducted a surveillance of the building. Using a first-generation laptop computer with average software, he produced an intelligence report with attachments containing pictures and diagrams. The report was presented to bin Laden in his office in Khartoum. …The report was laid out, and bin Laden, Mohammed Atef [the military committee head], Ayman al-Zawahiri, Ali Mohammed, and others discussed every aspect of his report. They discussed it in detail, whether it was feasible, whether it was going to accomplish the goals and objectives they wanted it to. There was an issue of killing

> fellow Muslims and what time of day to do it. They discussed what would be the best method of attack. Then, according to Ali, bin Laden looked at one of the pictures or diagrams and concluded that the U.S. embassy was extremely vulnerable. The embassy was not set back from the road and there was nothing really in the way of physical structure to prevent a bombing of the building; security guards were walking around, they were unarmed, I think they had nightsticks. And so bin Laden decided and the others decided, first of all in 1993, that they were going to put a bomb in a car or truck in the parking space they could access. …Later, that particular surveillance was updated before the attacks in '98. …The [Nairobi] plan was not haphazard; it was not done on the spur of the moment. It was well planned, well thought out, an attack with a high probability of success against a weak target.[283]

The vulnerability here is that if al-Qa'ida fears the consequences of mission failure and relies on careful planning to reduce the likelihood of a failed attack, then anything the United States can do to increase the risk of failure and complicate al-Qa'ida's planning should help in deterring a mass-casualty attack. Attack plans in fact have been abandoned because of the risk of failure. According to one report, U.S. intelligence and military officials have said that "fear of humiliation and failure kept Al Qaeda from attempting some attacks on a 9/11 scale after 2001, when defenses against terrorist strikes were heightened."[284]

In this regard, defensive measures could help in deterring a WMD attack by al-Qa'ida against the United States. By increasing the risks and costs of carrying out an attack, these measures could increase the likelihood of failure and thereby contribute to deterrence by denial. The U.S. nuclear detection system, for example, has the potential to exert a concomitant deterrent effect as part of its primary mission of defending against terrorist attempts at smuggling radiological or nuclear weapons or materials into the country. The system comprises large numbers of radiation detectors and other detection means, trained personnel, command and fusion centers, and associated telecommunications, with detection capabilities at seaports, airports, border crossings, around select cities, and operating in mobile deployments at sea, along waterways, and on land. Detection capabilities increase the risk a terrorist operation will be discovered. Countermeasures by al-Qa'ida to reduce this risk would increase the cost (money, matériel, manpower, time) and complexity of a planned operation, making it less attractive and introducing new risks; disassembling a device to reduce the chances of detection and then putting it together inside the United States, for example, probably would create other opportunities for law enforcement to uncover the plot. Tests, exercises, and demonstrations related to the system can heighten al-Qa'ida's awareness of this obstacle to nuclear smuggling.

It should be recognized, however that significant risk of mission failure may not be enough to deter al-Qa'ida from launching a mass-casualty attack. Leaders and the ranks may believe they are obligated by their faith, as part of jihad, to launch a mass-casualty attack even if the likelihood of success is low; they may simply place the fate of the undertaking in Allah's hands.[285] In its current state, al-Qa'ida may be so desperate for a big success that it is ready to gamble on a high-risk attack. If in some future circumstances it faces annihilation, and has obtained a weapon of mass destruction, it may attempt to use the weapon even if success is unlikely.[286] Even if the attack may fail, al-Qa'ida may be ready to count it as a success because it is likely to force the United States to adopt more stringent, more extensive, and, most important, more expensive security measures to prevent a similar attack in the future.[287] Finally,

it is the case that core al-Qa'ida continues to attempt attacks against the West, even though its actual success rate is only around 15 percent. Between 1999 and 2009, there were 12 operations controlled by core al-Qa'ida. Of these, only two—the 9/11 attacks in 2001 and the 7/7 London transport bombings in 2005—succeeded.[288]

U.S. Retaliation

If feasible, the most straightforward way to deter a mass-casualty attack would be to threaten military counteraction that produced losses exceeding what al-Qa'ida hoped to gain from the attack. The question is: What losses must be threatened?

Past experience indicates the danger of devastating retaliation would enter into the calculations of the al-Qa'ida leadership. The decade-long war waged by the United States in response to 9/11 has given al-Qa'ida an object lesson in the consequences of conducting a major attack on the U.S. homeland. While the war has been costly for the United States, and al-Qa'ida has been badly damaged but not yet defeated, the leaders contemplating a mass-casualty attack involving WMD could not ignore this demonstration of the severe harm U.S. military power can inflict. Indeed, it seems plausible they would expect the response to a mass-casualty attack to be even more punishing than the reaction to 9/11. (On the last point, note that when an al-Qa'ida member warned Omar bin Laden to leave Afghanistan before the 9/11 attacks he told him that "many of us will die" because "'past missions [the 1998 embassy bombings] were this size,' and he held his hand low to the ground. 'The new mission is this size,' and he held his hand as high as he could, over his head."[289] This suggests a fear that U.S. retaliation scales with the size of the al-Qa'ida attack.)

Prior to 9/11, several members of al-Qa'ida's top decision-making body, the *shura* council, agreed with Taliban leader Mullah Omar that an attack on the United States would be counterproductive. According to Khalid Sheikh Mohammed and other sources, this group included Abu Hafs al-Muritani (head of the religious committee), Sheikh Saeed al-Masri (head of the administrative and finance committee), and Sayf al-Adel (head of the security committee; currently head of the military committee).[290] Bin Laden, however, disregarded their objections. He discounted the danger of a retaliatory attack, believing that the United States was weak (evidenced by the 1984 Beirut and 1994 Somalia troop pullouts and the lack of response to the *Cole* attack) and that any retaliation would take the form of limited air strikes (like the approximately 75 cruise missiles fired after the embassy bombings), rather than an invasion of Afghanistan. Bin Laden was not deterred from ordering the 9/11 attacks because he did not perceive a serious U.S. retaliatory threat.[291]

In the late 1990s, according to an account by Abu Walid al-Masri, a bin Laden associate, members of the *shura* debated the necessity and morality of acquiring WMD. Those who wanted WMD, led by the head of the military committee, Mohammed Atef, argued that the weapons were needed to deter attack by the United States. Others, however, expressed fear that WMD use would trigger a ruinous counterblow by the United States, perhaps involving WMD of its own. In the end, efforts to acquire WMD were allowed to continue. Bin Laden did not oppose WMD acquisition, believing at the time that he could achieve his objectives with conventional weapons, again because of his perception that the United States was weak.[292]

For deterrence, any threatened punishment would have to be substantially greater than, or significantly different from, the damage al-Qa'ida already has suffered in the ongoing war by the

United States. The United States currently is engaged in major offensive operations against al-Qa'ida. The avowed aim of these operations is "disrupting, dismantling, and eventually defeating al-Qa'ida and its affiliates and adherents."[293] As a result of the U.S. effort (with contributions from Pakistan), "al-Qa'ida's senior leadership in Pakistan is weaker and under more sustained pressure than at any other point since it fled Afghanistan in 2001. …[It] has been depleted, the group's safe haven is smaller and less secure, and its ability to prepare and conduct terrorist operations has been degraded in important ways."[294] In a January 2011 audio recording, an al-Qa'ida media chief conceded that, "There are many areas where we once had freedom, but now they have been lost. We are the ones losing people, we are the ones facing shortages of resources. Our land is shrinking and drones are flying in the sky."[295] In fact, targeted killings by strike aircraft (notably drones) and ground forces (notably special operations units) have eliminated "dozens of al-Qa'ida and other militant leaders" since 2008, including bin Laden.[296] Of a list of 30 top leaders drawn up by U.S. intelligence in 2009, over two-thirds have been killed.[297]

Despite this grievous level of damage, the al-Qa'ida leadership remains undeterred from pursuing the option of a mass-casualty attack against the United States. "[O]ne of the early assessments from [the materials seized from bin Laden's compound]," reports the FBI, "is that al-Qaeda remains committed to attacking the United States."[298] The materials from the compound are also said to show some al-Qa'ida members proposing "daring raids aimed at causing mass casualties, patterned after the September 11, 2001 attacks."[299] In addition, "Al-Qaida and other terrorist organizations are working aggressively to acquire and employ chemical, biological, and nuclear materials."[300]

Al-Qa'ida so far has shown an ability to survive U.S. military assaults at their present level. At least for the near term, these assaults will continue whether al-Qa'ida carries out a mass-casualty attack or not. "More of the same" would not be a distinct, extreme threat to discourage a mass-casualty attack. Moreover, its execution could not be withheld. Al-Qa'ida would have no incentive to refrain from attacking and thus retaliatory punishment along the lines of ongoing U.S. military operations would be an ineffective deterrent. Some threat of sharp and mortal escalation in the fight would be necessary.

A threat to exterminate the organization probably would be necessary (though perhaps not sufficient) for a punitive strategy intended to deter al-Qa'ida from attempting a mass-casualty attack. The threats of defeat (the present U.S. aim) and death (targeted killings) so far have not deterred al-Qa'ida from plotting mass-casualty attacks against the United States. Extermination, on the other hand, unquestionably would deny al-Qa'ida its raison d'etre as an organization—the goal and glory of forging a new caliphate, as well as attainment of the intermediate objectives toward that end. The organization, the self-styled vanguard of the international jihad, would die and not simply some portion of its current leadership and rank and file. This would seem the highest price it could pay.

The threat to eradicate the organization would need to be made explicit. Vague formulations—holding terrorists and their allies "fully accountable," promising "overwhelming retaliation" and "unacceptable costs"—would not be enough. A credible threat of extermination would require the manifest willingness and ability to intensify the targeted-killings campaign and to occupy and clean out al-Qa'ida's safe havens in western Pakistan. (With regard to the latter, Zawahiri

himself has emphasized the essential importance of safe havens to the success of the organization: "the *mujahid* Islamic movement will not triumph against the world coalition unless it possesses an Islamist base in the heart of the Islamic world.")[301] Use of WMD could provide broad support for the United States and its allies to take extraordinary and harsher actions. This perception may be more easily fostered—at least compared to now—if al-Qa'ida employed WMD in a mass-casualty attack. Public opinion polls typically reveal the American public ready to support extreme measures in response to a WMD attack on the United States.[302] In principle, that may be a sufficient basis for the punitive threat in a broader deterrent strategy for the narrow but important purpose of deterring such an attack.

Al-Qa'ida's leaders might, however, doubt the credibility of a U.S. threat to exterminate the organization if they believed one or more of the following: 1) the United States lacked the military capabilities to bring about the demise of the group; 2) political and moral considerations would limit U.S. retaliation; 3) Pakistan would prevent or impede the United States from conducting extensive military operations in the safe havens; 4) al-Qa'ida could once again relocate to a new safe haven (in Yemen, for example); and 5) even if core al-Qa'ida were destroyed, its affiliates could carry on the struggle. Moreover, if the leadership already believes that the United States is bent on exterminating al-Qa'ida, then it might treat the threat as "more of the same" and see little reason ("damned if it did, damned if it didn't") not to attempt a mass-casualty attack.

Summary

Al-Qa'ida appears to have a number of the attributes of a deterrable adversary: purposeful behavior, calculation of costs and benefits (broadly defined), control of operatives by decision makers, lack of a rigid timetable for achieving key objectives, attention to what the opponent says and does, and the availability of alternative courses of action if preferred options are foreclosed. As important, the terrorist group may have vulnerabilities that can be exploited in order to deter a WMD attack against the United States. Of these, two stand out: the danger U.S. retaliation would extirpate the organization through greatly intensified and expanded offensive military operations, and the risk U.S. defensive measures would lead to the failure of an attempted attack and a subsequent drop-off in critical sources of support. The first is related to deterrence by threat of punishment, the second to deterrence by denial (with denial in this case also resulting in punitive consequences). Other vulnerabilities examined here—the potential for Muslim revulsion over a mass-casualty attack, problems in obtaining technical and financial assistance for WMD acquisition, internal organizational weaknesses possibly exacerbated by external influence operations—together may create a context in which the WMD option is harder for al-Qa'ida to pursue. For senior leaders in the group, the threat of organizational annihilation seems likely to eclipse the fear of death or imprisonment, the remaining vulnerability considered. As discussed, none of the vulnerabilities offers the basis for an assured deterrent strategy to prevent a WMD attack by al-Qa'ida. But then, deterrence never comes with a guarantee.

V. Strategy for Deterring Al-Qa'ida

The NSA case studies reviewed for this study demonstrate that the deterrence of terrorist organizations should not be considered infeasible a priori. While deterrence may not be practicable against some terrorist organizations, it is likely to be feasible vis-à-vis some terrorist organizations, at some times, and for some purposes. This same conclusion is true for the functioning of deterrence vis-à-vis other types of actors—the distinction with regard to the practicality and difficulty of deterrence is a matter of degree.

This analysis has identified possible points of vulnerability of core al-Qa'ida that could, in principle, be exploited for deterrence purposes. A preliminary discussion of selected components of a strategy to do so follows.

Possible Components of a Strategy to Deter Al-Qa'ida from WMD Attacks Against the United States

Empirical evidence demonstrates that al-Qa'ida leaders can be pragmatic and have in the past deliberated over proposals to use acts of terrorism toward specific ends. Deterrence of some actions by al-Qa'ida should be possible—at least in principle. Al-Qa'ida has a number of apparent vulnerabilities that may be exploitable to prevent mass-casualty attacks involving WMD. The case studies of deterrence and non-state actors reveal that in circumstances in which deterrence was successfully achieved, a combination of denial and punitive measures was used to influence the decision calculus of the non-state actor. The discussion below identifies potential elements of denial and punitive deterrent strategies that might be considered for al-Qa'ida, and discusses whether inducements could play any constructive role in an overall strategy intended to deter al-Qa'ida senior leaders from conducting mass-casualty attacks against the United States.

Denial Measures

Elements of a denial strategy would seek to raise the cost, difficulty, and risk of failure of any WMD-related mass-casualty attack contemplated by al-Qa'ida. A denial strategy could also be designed to reduce the perceived value of the attacks for al-Qa'ida's short- or long-term objectives. Conceptually, a denial strategy could include the following elements:

- *Increase cost.* Mass-casualty attacks involving controlled materials with nuclear, biological, or chemical weapons applications, are likely to require specially trained personnel and large outlays. Costs to al-Qa'ida might be increased in both absolute and relative terms.

    - *Increase absolute cost.* To achieve this effect, the availability to al-Qa'ida of special materials and expertise would need to be reduced further. This would be a daunting task. U.S. experience in combating illegal trafficking, such as drug smuggling, points to the challenges associated with limiting supplies of illegal goods. However, while supply may not be completely eliminated, it may be constrained sufficiently to increase the price of such goods. Reducing the availability of special materials and

expertise could result from measures to account for, "lock down," and monitor such materials; a combination of other counterproliferation-related activities; and efforts to convince potential suppliers that they would be held accountable for terrorist acts enabled by materials or expertise provided to al-Qa'ida. Each measure could contribute, perhaps only in a small way, to the overall objective of increasing the cost of specialized materials and expertise by limiting availability.

- *Increase relative cost.* If total resources available to core al-Qa'ida could be reduced, then the relative portion of al-Qa'ida's budget required to mount a mass-casualty operation would increase. Al-Qa'ida leaders would have to make harder decisions on where to allocate scarce resources. If an increase in relative costs could be achieved by further constraining WMD-related items available to al-Qa'ida, the decision makers in the terrorist group might be influenced to allocate resources elsewhere, especially if they also perceive the difficulty and risk of failure of a mass-casualty attack as being significant.

- *Increase difficulty.* An increase in the difficulty and complexity of a mass-casualty attack can contribute to an increase in cost as well as an increase in perceived risk. Disruptive operations can deny al-Qa'ida operatives sanctuaries from which to plan and train, and would increase greatly the difficulty of preparing for attacks involving complicated procedures. In addition, defensive measures, such as sensors that detect radiation, could compel al-Qa'ida planners to take extra precautions and evaluate the effectiveness of detection equipment in the United States and elsewhere to determine if countermeasures such as radiation shielding were required. Specialized expertise to calculate shielding requirements, fabricate the shielding, and implement a plan that includes radiation shielding, for example, would complicate an attack plan involving nuclear or radiological materials. Defenses and disruptive operations should strive to eliminate al-Qa'ida attack options that would otherwise be relatively easy to orchestrate.

- *Increase risk of failure.* An increase in the risk of failure can result from improved defenses, such as radiation detectors, as well as other measures that increase the complexity of an attack. Each added complexity, such as shielding for nuclear or radiological material or an additional change in the mode of transportation (e.g., from a ship to a truck to convey a bomb) presents an opportunity for discovery or misstep. Even a small mistake can result in mission failure. The planned in-flight explosion on an airliner by shoe-bomber Richard Reid failed because he did not use a cigarette lighter and had difficulty using matches to light the fuse. Added complexity of an attack plan and the requirement for more individuals and communications can also increase the concern that good intelligence measures and police work will detect an attack at some point in its planning or implementation.

- *Decrease payoff.* Al-Qa'ida leaders obviously would see a successful mass-casualty attack on the United States as contributing to their avowed objectives. Leaders have repeatedly stated the intent to use such attacks to induce fear in the United States and thereby weaken U.S. resolve to support Israel and "apostate" Arab regimes in the Middle East. A mass-casualty attack with WMD could also be expected to compel the United States to adopt further security measures orders of magnitude more expensive than the

cost to al-Qa'ida of the attack, and thereby contribute to the terrorist goal of weakening the United States financially. Furthermore, a successful attack might inspire some to join al-Qa'ida and others to provide financial and technical support. However, the United States has the ability to influence how American will and resolve are perceived by al-Qa'ida leaders. If the United States projects the image that it is well prepared for various types of mass-casualty attacks, able to respond and limit the consequences, and likely to be resilient in their wake, al-Qa'ida leaders and their supporters may question whether such attacks would be wise investments of scarce resources. In addition, deaths from an attack with WMD would be indiscriminate. If the innocent victims of an attack, especially Muslim victims, can be humanized and portrayed as such to the world, a further backlash against al-Qa'ida and its methods could result. Such a backlash from Sunni Muslims occurred in Iraq during the 2005-2006 time frame in response to the brutal actions of Abu Musab al-Zarqawi, the leader of al-Qa'ida in Iraq. Understanding what al-Qa'ida hopes to achieve from such attacks should help U.S. leaders in tailoring their responses to an attempted or successful attack in ways that undermine near-term and long-term goals of al-Qa'ida leaders.

Punitive Measures

A punitive deterrent strategy would seek to make clear that the U.S. response to a mass-casualty attack with WMD would change the nature of the war on terror in ways which alarm al-Qa'ida leaders, its operatives, and supporters. Instead of the perception that it was already doing all that it could to defeat al-Qa'ida, the United States would need to communicate its willingness to take the fight to a higher level in response to a WMD attack on the homeland. Elements of a punitive strategy would need to be directed at al-Qa'ida senior leaders, as well as al-Qa'ida operatives, including potential recruits for suicide missions, and those who supply and provide support to al-Qa'ida operations.

- *Punitive measures targeted at al-Qa'ida senior leaders.* Al-Qa'ida's top leaders are unlikely to be deterred from large-scale attacks by direct threats to their lives. They are already being pursued and many have been killed. However, these leaders may be sensitive to the threat of a U.S. response that puts in jeopardy al-Qa'ida's long-term goals related to uniting the world's Muslims under a new caliphate. Those al-Qa'ida leaders willing to die for the cause may not be quick to do so without achieving some progress toward al-Qa'ida's longer-term objectives. Since al-Qa'ida seems to be under no time constraints, the United States should help al-Qa'ida leaders conclude that launching a WMD or other catastrophic attack on the United States *at this time* could damage their longer-term prospects. Deferral of an attack for a significant period of time counts as an attack deterred.

- *Punitive measures targeted at al-Qa'ida operatives.* Two types of punitive threats could be effective against lower-level al-Qa'ida operatives.

    - *Threat of long-term incarceration*. Suicide bombers are motivated by a desire to be heroes in their hometowns, or to reach the everlasting paradise promised to Islamist martyrs. They do not want to risk their martyrdom and glory on a botched operation. The last thing they want is to spend the rest of their lives in prison.[303] The potential for a planned attack to fail, coupled with the threat of lengthy prison sentences in

harsh conditions, could cause some lower-level al-Qa'ida operatives to question their commitment.

- *Threat to family members.* If al-Qa'ida operatives believed that their involvement in a mass-casualty attack on the United States—whether thwarted or successful—could result in pain and suffering to family members, some might be motivated to abandon the cause. At least one of the potential 9/11 hijackers grew homesick for his wife and newborn child while in the United States preparing for his suicide mission.[304] For a time, Israel had a policy of inflicting punishment on families by bulldozing the family homes of Palestinian suicide bombers.[305] While potentially effective in principle, similar policies are unlikely to be supported by most U.S. citizens in the absence of a catastrophic attack. However, terrorist preparations to use, and actual use of, WMD could harden public attitudes in strong support of this and other extreme measures to deal with anyone involved in or supporting such planning.

- *Punitive measures targeted at al-Qa'ida's suppliers and supporters.* According to one analyst, "Many financiers, supporters, radical clerics, and other members of terrorist networks value their lives and possessions."[306] These critical links in the al-Qa'ida network may be vulnerable to punitive threats and they should be made to believe that they will be held accountable and suffer fates similar to those al-Qa'ida members who participate directly in any mass-casualty attack.[307] They should be reminded of the example of the Taliban; because of its willingness to host bin Laden and his followers, and refusal to turn bin Laden over to the United States, Taliban leaders lost control of Afghanistan. The United States should consider the punitive threats which would be most feared by al-Qa'ida's supporters and suppliers, especially those who could serve as middlemen to procure nuclear, radiological, or other lethal materials for a mass-casualty attack.

Combined Measures

In the case studies in which non-state actors were deterred, an appropriate mix of denial measures and punitive threats was tailored to influence a particular adversary and situation. Some of the elements of a deterrent strategy discussed above could contribute to both denial deterrence and punitive deterrence. In the case of core al-Qa'ida, the following actions have the potential for both denial and punitive effects:

- Disruptive operations to deny al-Qa'ida leaders safe havens from which to plan and train can increase the degree of difficulty (i.e., denial effect) for complex, mass-casualty attacks, while at the same time demonstrating to al-Qa'ida operatives the real possibility that they risk capture and prolonged imprisonment (i.e., punitive effect).

- Actions that threaten various punitive measures for states, organizations, and individuals that supply or support al-Qa'ida, if effective, can also have a denial effect by reducing the availability of critical materials for mass-casualty attacks and increasing absolute costs to al-Qa'ida.

- Denial measures, such as defenses, that increase the difficulty of attacks can also increase the likelihood of failure. Failure can result in the capture of al-Qa'ida operatives

as well as the seizure of materials planned for the attack. Al-Qa'ida operatives would face the prospect of lengthy prison sentences and al-Qa'ida's suppliers and supporters could worry over whether their involvement would be revealed by traceable records or forensics that led to their punishment.

- Punitive measures that promise a much more severe level of offense and tenacity by the United States—to change the nature of the war—in response to an attack could cause al-Qa'ida leaders to question whether this was the right time for such an attack to further their ultimate goals. As noted earlier, this perception may be more easily fostered than perhaps now seems likely if al-Qa'ida employed WMD in an attack. As noted, public opinion polls typically reveal the American public ready to support extreme measures in response to a WMD attack on the United States. Convincing al-Qa'ida leaders to defer an attack for fear of unleashing an intolerable U.S. response should be considered successful deterrence—even if only temporary.

Inducements

As discussed in the summary of the NSA study, past conflicts between states and non-state actors show that inducements in some cases can help a non-state adversary reach a strategic decision to cease its attacks—to be deterred. Inducements were sometimes offered to senior leaders and to lower-level operatives.

- *Inducements to senior al-Qa'ida leaders.* In some case studies, inducements were effective in convincing non-state leaders to cease hostilities against a state. In these cases, the non-state leaders had goals which were not in conflict with fundamental interests of the state adversary. For example, IRA leaders and Basque separatist (ETA) leaders both sought greater autonomy for a cultural group in a limited geographic area. The inducement of a limited amount of autonomy for the IRA or for ETA did not threaten the fundamental interests of the United Kingdom or Spain, respectively, and contributed positively to deterrent effects by removing or decreasing a motivation for continued conflict. In cases in which the goals of a non-state adversary were incompatible with those of the state (e.g., Israel versus Hamas or Hezbollah), inducements did not play a constructive role. In the case of al-Qa'ida, its long-term goals and commitment to violent actions to achieve those goals are incompatible with the fundamental security interests of the United States and its allies. Therefore, inducements to senior al-Qa'ida leaders do not appear to serve any useful purpose for strengthening deterrence of mass-casualty attacks.

- *Inducements to lower-level operatives and supporters.* In some cases, inducements have been used to shrink the base of support for non-state adversaries. Inducements were offered to the general population that had supported the non-state foe in its fight against the state, as well as to lower-level operatives of the NSA. Many lower-level operatives and al-Qa'ida supporters may not be irrevocably committed to al-Qa'ida's goals and methods. For these operatives and supporters, inducements would need to help change their decision calculus in favor of withdrawing support for al-Qa'ida. Inducements for lower-level al-Qa'ida operatives, as well as suppliers and supporters of al-Qa'ida, might reduce the base of support for al-Qa'ida and thereby make denial and punitive deterrent measures targeted against senior al-Qa'ida leaders more effective.

Based on the evidence of the case studies, inducements have only been effective in contributing to deterrence when the target group was under significant pressure, usually a punitive threat if hostilities continued. In the case of al-Qa'ida, inducements for the *ummah* in general and for lower-level al-Qa'ida operatives and supporters in particular might complement an overall deterrent strategy composed of denial and punitive measures.

Bottom Line

Primary conclusions from the study of deterrence in conflicts between states and NSAs are that terrorist organizations should not be considered immune to strategies of deterrence, and that no single approach to deterrence is likely to be effective in all cases, given the variation in foes and contexts. In addition, the functioning of deterrence involves inherent uncertainties, and some of those uncertainties tend to be magnified by the general characteristics of terrorist organizations. Nevertheless, concerted efforts to understand terrorist organizations can help provide the basis for tailoring an appropriate mix of denial measures and punitive threats to specific opponents and dangers.

Core al-Qa'ida, in common with a number of other terrorist organizations, appears to have characteristics that are compatible with the functioning of deterrence in principle. It also has a variety of vulnerabilities which might be exploitable for deterrence purposes. While these conclusions do not suggest assurance that al-Qa'ida can be deterred from nuclear terrorism or other forms of WMD attack, they do suggest that the potential exists for the United States to pursue further strategies for this purpose.

Notes

[1] For detailed discussion of the case studies, see Keith B. Payne et al., *Deterrence and Coercion of Non-State Actors, Vol. II: Case Studies* (Fairfax, Va.: National Institute for Public Policy, October 2008). The study director was Keith Payne. The contributors were Shmuel Bar, Patrick Garrity, Gary Geipel, Colin Gray, Kurt Guthe, Melanie Inglis, Robert Joseph, Steven Lambakis, Russell Roth, Thomas Scheber, Andrei Shoumikhin, and Willis Stanley.

[2] See Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice From the Cold War to the Twenty-First Century* (Fairfax, Va: National Institute Press, 2008), pp. 340-346.

[3] For example, a December 18, 2002 poll by *The Washington Post* and ABC News found that 60 percent of the American public would support "having the United States attack Iraq with nuclear weapons if Iraq attacked U.S. forces with biological or chemical weapons." The poll is available at http://www.washingtonpost.com/wp-srv/politics/polls/vault/stories/data121802.htm.

[4] See, for example, the following books by National Institute President Keith B. Payne: *The Great American Gamble*, op. cit.; *The Fallacies of Cold War Deterrence and a New Direction* (Lexington, Ky.: University of Kentucky Press, 2001); and *Deterrence in the Second Nuclear Age* (Lexington, Ky.: University of Kentucky Press, 1996).

[5] The White House, *National Strategy for Counterterrorism* (Washington, D.C.: The White House, June 2011), pp. 3, 8.

[6] See Rolf Mowatt-Larssen, *Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality?* (Cambridge, Mass.: Belfer Center for Science and International Affairs, Harvard Kennedy School of Government, January 2010), available at http://belfercenter.ksg.harvard.edu/files/al-qaeda-wmd-threat.pdf.

[7] Sun-Tzu, *The Art of War*, trans. J.H. Huang (New York: William Morrow and Company, 1993), p. 48.

[8] Payne et al., *Deterrence and Coercion of Non-State Actors, Vols. I and II*, op. cit.

[9] For an early discussion, see Glenn H. Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Princeton, N.J.: Princeton University Press, 1961), pp. 14-15.

[10] See, for example, Jimmy Carter, Presidential Directive/NSC-59, "Nuclear Weapons Employment Policy," July 25, 1980 (Top Secret/Sensitive; declassified in part, August 20, 1996), available at http://www.jimmycarterlibrary.gov/documents/pddirectives/pd59.pdf.

[11] Department of Defense, *Deterrence Operations Joint Operating Concept*, Version 2.0 (Washington, D.C.: Department of Defense, December 2006), p. 26.

[12] The White House, *National Strategy for Counterterrorism*, op. cit., p. 8.

[13] See Payne, *The Great American Gamble*, op. cit., pp. 340-346.

[14] Two captured documents, an assessment by a mid- to high-level emir and the diary of another operative, discussed and distributed in a press conference by Rear Adm. Gregory Smith, director, Multi-National Force-Iraq's communication division, February 10, 2008, available at http://www.globalsecurity.org/military/library/news/2008/02/mil-080210-mnfi-b01.htm.

[15] See, Yurii Perfiliev, *Terror. Beirut – Hot October*, XXI Century–Soglasie, 2000 (ISBN: 5-293-00020-9) (in Russian). See also, Konstantin Kapitonov, "Lebanon: How Soviet Hostages Were Freed," Utro.ru, September 20, 2000 (in Russian), available at http://www.utro.ru/articles/politics/2000/09/20/2000092003162035408.shtml?2000/09/20?2000/09/20, "SVR Colonel Yurii Perfiliev: And Then I Told the Sheik that the Missile May Fly as Far as Khomeini," *Ogonyek*, October 22, 2001 (in Russian), available at http://www.x-libri.ru/elib/smi__249/00000001.htm#a1, and "Open-Air Conversation with an Eyewitness," Ekho Moskvy, July 4, 2006, (In Russian), available at http://www.echo.msk.ru/programs/svoi_glaza/44602/index.phtml.

[16] Department of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: Department of Defense, February 2010), p. 14.

[17] This chapter was authored by Cynthia Storer, with some material provided by Christopher Harmon and James Robbins.

[18] Peter L. Bergen, *The Osama bin Laden I Know: An Oral History of al Qaeda's Leader* (New York: Free Press, 2006), Chapter 4 (pp. 74-107). This chapter of Bergen's book contains copies of some of the original meeting notes and "incorporation" documents, as well as personal recollections of the events surrounding al-Qa'ida's founding. See also "8/11/1988: Tareekh Osama memo," available at http://intelwire.egoplex.com/2008_08_11_blogarchive.html.

[19] "Religious and historical account regarding justification for Arabs to continue jihad" (translated), undated (but prior to 2002), AQ-THEO-D-000-022, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University.

[20] Bergen, *The Osama bin Laden I Know*, op. cit., Chapter 4.

[21] Vahid Brown, "The Facade of Allegiance: Bin Ladin's Dubious Pledge to Mullah Omar," *CTC Sentinel*, Vol. 3, Issue 1 (January 2010), p. 1, available at http://www.ctc.usma.edu/wp-content/uploads/2010/08/Pages-from-CTCSentinel-Vol3Iss1-art1.pdf.

[22] Najwa bin Laden, Omar bin Laden, and Jean Sasson, *Growing Up bin Laden: Osama's Wife and Son Take Us Inside Their Secret World* (New York: St. Martin's Griffin, 2010), pp. 173-175.

[23] Daveed Gartenstein-Ross, "Al-Qaeda on the Brink?" *National Review Online*, July 28, 2011, available at http://www.nationalreview.com/articles/272920/al-qaeda-brink-daveed-gartenstein-ross.

[24] Joseph Felter and Brian Fishman, *Al-Qa'ida's Foreign Fighters in Iraq: A First Look at the Sinjar Records* (West Point, N.Y.: Harmony Project, West Point Combating Terrorism Center, January 2, 2007), available at http://www.ctc.usma.edu/posts/al-qaidas-foreign-fighters-in-iraq-a-first-look-at-the-sinjar-records.

[25] David Ignatius, "10 Years After 9/11, Al-Qaeda Is Down But Not Out," *The Washington Post*, August 23, 2011, available at http://www.washingtonpost.com/opinions/10-years-after-911-al-qaeda-is-down-but-not-out/2011/08/23/gIQARQ3tZJ_print.html.

[26] See, for example, Arif Jamal, "Former Pakistan Army Chief Reveals Intelligence Bureau Harbored Bin Laden in Abbottabad," *Terrorism Monitor*, Vol. 9, Issue 47 (December 22, 2011), available at http://www.jamestown.org/programs/gta/single/?tx_ttnews[tt_news]=38819&cHash=b3da5dd4a1af2664ec4821b405dae77b. See also Secretary of Defense Leon Panetta, interview with "60 Minutes" CBS News program, January 29, 2012 (air date), transcript, available at http://www.cbsnews.com/8301-18560_162-57367997/the-defense-secretary-an-interview-with-leon-panetta/?tag=contentMain;cbsCarousel.

[27] Jenna Jordan, "Leadership Decapitation and Organizational Resilience," paper presented at the annual meeting of the International Studies Association, February 17-20, 2010, available at http://citation.allacademic.com//meta/p_mla_apa_research_citation/4/1/6/0/1/pages416016/p416016-2.php.

[28] Rohan Gunaratna and Aviv Oreg, "Al Qaeda's Organizational Structure and its Evolution," *Studies in Conflict and Terrorism*, Vol. 33, No. 12 (December 2010), p. 1055 and passim, See also the following sources from the Harmony Program Documents, Combating Terrorism Center at West Point, available at http://www.ctc.usma.edu/posts/publications/harmony-documents: "Interior Organization" (translated), undated, AFGP-2002-000080; "Al-Qai'da Goals and Structure" (translated), undated, AFGP-2002-000078; and "Al-Qa'ida Bylaws" (translated), undated, AFGP-2002-600048.

[29] Michael Scheuer, *Osama Bin Laden* (New York: Oxford University Press, 2011), pp. 148-150.

[30] Mark E. Stout, Jessica M. Huckabey, John R. Schindler with Jim Lacey, *The Terrorist Perspectives Project: Strategic and Operational Views of Al Qaida and Associated Movements* (Annapolis, Md.: Naval Institute Press, 2008), p. 38.

[31] Loc. cit.

[32] "Excerpt from a Book Entitled Introduction to Guerrilla Warfare" (translated), November 1, 1999, Harmony document folder AFGP-2002-000026, quoted in Stout et al., *The Terrorist Perspectives Project*, op. cit., p. 38.

[33] David Jan Slavicek, "Deconstructing the Shariatic Justification of Suicide Bombing," *Studies in Conflict and Terrorism*, Vol. 31, Issue 6 (June 2008), pp. 560-564.

[34] Yusuf al-Ayiri, "The Islamic Ruling on the Permissibility of Martyrdom Operations," available at http://www.religioscope.com/pdf/martyrdom.pdf.

[35] Stout et al., *The Terrorist Perspectives Project*, op. cit., p. 46, citing Intel Center, *Al-Qaeda's Advice for Mujahideen in Iraq: Lessons Learned in Afghanistan*, Vol, 10, April 14, 2003, at www.IntelCenter.com.

[36] Fawaz A. Gerges, *Journey of the Jihadist: Inside Muslim Militancy* (New York: Harcourt Press, 2007), p. 111.

[37] Letter from al-Zawahiri to [Abu Musab] al-Zarqawi (July 9, 2005), News Release No. 2-05, Office of the Director of National Intelligence, October 11, 2005, available at http://www.dni.gov/press_releases/20051011_release.htm.

[38] Abu Bakr Naji, *The Management of Savagery: The Most Critical Stage Through Which the Umma Will Pass*, trans. William McCants (Cambridge, Mass.: John M. Olin Institute for Strategic Studies, Harvard University, May 23, 2006), available at http://www.wcfia.harvard.edu/olin/images/Management%20of%20Savagery%20-%2005-23-2006.pdf.

[39] Intel Center, *Al-Qaeda's Advice for Mujahideen in Iraq: Lessons Learned in Afghanistan*, Vol, 10, April 14, 2003, at www.IntelCenter.com, cited in Stout et al., *The Terrorist Perspectives Project*, op. cit., pp. 46 and 59 (fn 75).

[40] Scheuer, *Osama Bin Laden*, op. cit., p. 147.

[41] Shmuel Bar, *Warrant for Terror: The Fatwas of Radical Islam and the Duty to Jihad* (Lanham, Md.: Rowman and Littlefield Publishers, Inc, 2006), pp. 48-58.

[42] Bergen, *The Osama bin Laden I Know*, op. cit., pp. 203-206.

[43] See Mowatt-Larssen, *Al Qa'ida Weapons of Mass Destruction Threat*, op. cit. The other clerics include Hani al Sibai, Muzammil Siddiqi, Sheik'allah al Shanawi, and Faysal Mawlawi.

[44] Quoted in David Cook, *Understanding Jihad* (Berkeley, Calif.: University of California Press, 2005) p. 194.

[45] Thomas Joscelyn, "Osama Bin Laden's Spokesman Freed by Iran," *The Long War Journal*, September 28, 2010, available at http://www.longwarjournal.org/archives/2010/09/osama_bin_ladens_spo.php.

[46] Ayman al-Zawahiri, *Knights Under the Prophet's Banner* (2001), trans. Laura Mansfield, in Mansfield, *His Own Words: Translation and Analysis of the Writings of Dr. Ayman al-Zawahiri* (Old Tappan, N.J.: TLG Publications, 2006) p. 200.

[47] Abu Musab al-Suri, "The Muslims in Central Asia and the Upcoming Battle of Islam" (translated), November 1999, AQ-SHPD-D-000-136, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University.

[48] Rahimullah Yusufzi, "Conversations with Terror," *Time*, January 11, 1999, available at http://www.time.com/time/magazine/article/0,9171,17676,00.html.

[49] Nasr Bin Hamd al-Fahd, "Message About Regulation of the Use of Weapons of Mass Destruction Against Infidels" (translated), May 2003, NMEC-2005-658033, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University.

[50] Muhammad bin Ahmad as-Salim, "39 Ways to Serve and Participate in Jihad," 2003 (translated by At-Tibyan Publications), available at http://www.archive.org/stream/39WaysToServeAndParticipate/39WaysToServeAndParticipateInJihad_djvu.txt.

[51] With regard to income from legitimate businesses, bin Laden owned many large businesses in Sudan, al-Qa'ida has used front companies around the world, and members have been known to own and operate a wide variety of small businesses, such as cell phone stores (in Spain), fishing and a dive shop (in Somalia), honey trade (in Yemen), automobile repair shops, and restaurants. See Anonymous [Michael Scheuer], *Through Our Enemies' Eyes: Osama bin Laden, Radical Islam, and the Future of America* (Washington, D.C.: Brassey's, Inc., 2002), pp. 34-36; and Mark Basile, "Going to the Source: Why Al-Qaeda's Financial Network Is Likely to Withstand the Current War on Terrorist Financing," *Studies in Conflict and Terrorism*, Vol. 27, Issue 3 (May/June 2004), pp. 169-185. Despite much speculation, there is little to no reliable public data on the extent to which al-Qa'ida or any of its affiliates engages in narcotics trafficking or alien smuggling for profit, if any.

[52] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[53] Daveed Gartenstein-Ross and Kyle Dabruzzi, "Is Al-Qaeda's Central Leadership Still Relevant?" *Middle East Quarterly*, Vol. 15, No. 2 (Spring 2008), pp. 27-36, available at http://www.meforum.org/1875/is-al-qaedas-central-leadership-still-relevant.

[54] "Employment Contract" (translated), undated, AFGP-2002-600045, in James J.F. Forest, Jarret Brachman, and Joseph Felter, *Harmony and Disharmony: Exploiting al-Qa'ida's Organizational Vulnerabilities* (West Point, N.Y.: West Point Combating Terrorism Center, February 14, 2006), p. 69, available at http://www.ctc.usma.edu/posts/harmony-and-disharmony-exploiting-al-qaidas-organizational-vulnerabilities.

[55] Ian Katz and John Walcott, "Al-Qaeda Members Gripe Over Cash Crunch as U.S. Targets Funding," Bloomberg, January 09, 2012, available at http://mobile.bloomberg.com/news/2012-01-09/al-qaeda-members-gripe-over-cash-crunch-as-u-s-goes-after-terror-funding.html; and Greg Bruno, "Al Qaeda's Financial Pressures," Council on Foreign Relations *Backgrounder*, February 1, 2010, available at http://www.cfr.org/terrorist-organizations/al-qaedas-financial-pressures/p21347.

[56] "Jihad media document, regarding means of communication with the population and the importance of slogans and truthfulness" (translated), circa 1990, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University, available at http://www.ndu.edu/inss/index.cfm?secID=171&pageID=4&type=section.

[57] Scheuer, *Osama Bin Laden*, op. cit., p. 115.

[58] Jarret M. Brachman, "High-Tech Terror: Al-Qaeda's Use of New Technology," *The Fletcher Forum of World Affairs*, Vol. 30, No. 2 (Summer 2006), p. 160, available at www.dtic.mil/cgibin/GetTRDoc?AD=ADA458499.

[59] Gunaratna and Oreg, "Al Qaeda's Organizational Structure and its Evolution," op. cit., pp. 1055, 1063.

[60] Bergen, *The Osama bin Laden I Know*, op. cit., Chapter 8 (pp. 258-282), contains an extensive collection of personal impressions of bin Laden.

[61] Scheuer, *Osama Bin Laden*, op. cit., pp. 62-66.

[62] Bergen, *The Osama bin Laden I Know*, op. cit., Chapter 4 (pp. 74-107), includes a detailed discussion of bin Laden's radicalization at the hands of the Egyptians and his falling out with Azzam. Bergen argues convincingly that the Egyptians are the most likely culprits behind Azzam's unsolved murder.

[63] Ibid., p. 83.

[64] Ibid., pp. 74-82.

[65] Scheuer, *Osama Bin Laden*, op. cit., pp. 220-221.

[66] Timothy R. Furnish, *Holiest Wars: Islamic Mahdis, Their Jihads, and Osama bin Laden* (Westport, Conn.: Praeger Publishers, 2005), p. 157.

[67] Scheuer, *Osama Bin Laden*, op. cit., pp. 4-8. Scheuer notes that these accounts are often from individuals who had a falling out with bin Laden or whose views were not accepted, so while their information may be true, it should be viewed with caution.

[68] Bergen, *The Osama bin Laden I Know*, op. cit., pp. 277-278.

[69] "Letter from Abd al-Hadi al-Ansari to Hasaan al-Ashmawi regarding experience as a commanding officer (Part 1 of 2)" (translated), December 2000, AQ-MCOP-D-000-917, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University.

[70] Scheuer, *Osama Bin Laden*, op. cit., p. 14.

[71] James W. Pennebaker and Cindy K. Chung, "Computerized Text Analysis of Al-Qaeda Transcripts," in Klaus Krippendorff and Mary Angela Bock, eds., *A Content Analysis Reader* (Thousand Oaks, Calif.: SAGE Publications, Inc., 2009), pp. 453-465, available at http://homepage.psy.utexas.edu/homepage/faculty/pennebaker/Reprints/index.htm.

[72] Hani Nasira, "Al-Qaeda's Egyptian Ideologues Planning Caliphate's Return to Egypt," *Terrorism Monitor,* Volume 9, Issue (July 27, 2011), available at http://www.jamestown.org/programs/gta/single/?tx_ttnews[tt_news]=38150&cHash=32abd6eef7053c197eea177f4be36d44.

[73] "Questions as Al Qaida Distributes Humanitarian Aid in Somalia," *Jakarta Globe*, October 17, 2011, available at http://www.thejakartaglobe.com/international/questions-as-al-qaida-distributes-humanitarian-aid-in-somalia/472111.

[74] Rohan Gunaratna, *Inside Al Qaeda: Global Network of Terror* (New York: Berkley Books, 2003), pp. 76-77.

[75] "Al-Qa'ida Bylaws," op. cit.

[76] Gunaratna and Oreg, "Al Qaeda's Organizational Structure and its Evolution," op. cit., p. 1055 and passim.

[77] Ignatius, "10 Years After 9/11, Al-Qaeda Is Down But Not Out," op. cit.

[78] Scheuer, *Osama Bin Laden*, op. cit., p. 59.

[79] Narrative Summaries of Reasons for Listing, QI.S.1.01. SAYF-AL ADL, Security Council Committee Pursuant to Resolutions 1267 (1999) and 1989 (2011) Concerning Al-Qaida and Associated Individuals and Entities, September 7, 2010, available at http://www.un.org/sc/committees/1267/NSQI00101E.shtml.

[80] Buck Sexton, "Al-Qaeda and Taliban Uniting With Pakistani Terrorists Against U.S. in Afghanistan," *The Blaze*, January 2, 2012, available at http://www.theblaze.com/stories/al-qaeda-and-taliban-uniting-with-pakistani-terrorists-against-u-s-in-afghanistan/.

[81] Mike Pflanz, "US Focus to Beat Al-Qaeda Shifting to Africa," *The Telegraph*, January 26, 2012, available at http://www.telegraph.co.uk/news/worldnews/al-qaeda/8953934/US-focus-to-beat-al-Qaeda-shifting-to-Africa.html; Stephen Harmon, "From GSPC to AQIM: The Evolution of an Algerian Islamist Terrorist Group Into an Al-Qa'ida Affiliate and Its Implications for the Sahara-Sahel Region," *Concerned African Scholars Bulletin*, No. 85 (Spring 2010), pp. 12-29, available at http://concernedafricascholars.org/docs/bulletin85harmon.pdf.

[82] See, for example, Donnatella Della Porta, "Left-Wing Terrorism in Italy," in Martha Crenshaw, ed., *Terrorism in Context* (University Park, Pa.: Pennsylvania State University Press, 1995), pp. 105-159; Ehud Sprinzak, "The Iceberg Model of Political Extremism," in David Newman, ed., *The Impact of Gush Emunim: Politics and Settlements in the West Bank* (New York: St. Martin's Press,1985), pp. 27-45; and Quintan Wiktorowicz, ed., *Islamic Activism: A Social Movement Theory Approach* (Bloomington, Ind.: Indiana University Press, 2004).

[83] "Al-Qa'ida Bylaws," op. cit.

[84] Bill Roggio, "AQAP Leader Pledges Oath of Allegiance to Ayman al-Zawahiri," *The Long War Journal*, July 26, 2011, available at http://www.longwarjournal.org/archives/2011/07/aqap_leader_pledges.php.

[85] "Text of al-Qa'ida Announcement that Zawahiri Is Its Leader," McClatchey, June 16, 2011, available at http://www.mcclatchydc.com/2011/06/16/115999/text-of-al-qaidas-announcement.html.

[86] Steve Coll, *Ghost Wars: The Secret History of the CIA, Afghanistan, and bin Laden, from the Soviet Invasion to September 10, 2001* (New York: Penguin Press, 2004), p. 471.

[87] Jemaah Islamiya borrowed from the playbook of Palestinian terrorists when it conducted a double car bombing against night clubs in Bali, with the second bomb timed to kill patrons as they fled into the street.

[88] Thomas Joscelyn, "AQAP Claims Responsibility for Cargo Planes Plot," *The Long War Journal*, November 6, 2010, available at http://www.longwarjournal.org/archives/2010/11/aqap_claims_responsi.php.

[89] John Brennan, assistant to the president for homeland security and counterterrorism, remarks at Department of Treasury symposium, "Ten Years Later: Progress and Challenges in Combating the Financing of Terrorism Since 9/11," quoted in "Brennan: Al-Qaeda Affiliates Turning To Crime For Funding," Radio Free Europe/Radio Liberty, September 8, 2011, available at http://www.rferl.org/content/al_qaeda_john_brennan_funding_crime/24322670.html.

[90] Mark Mazetti, "C.I.A. Drone Is Said to Kill Al Qaeda's No. 2," *The New York Times*, August 27, 2011, available at http://www.nytimes.com/2011/08/28/world/asia/28qaeda.html. According to Mazetti, U.S. officials said that AQAP had sent a request to bin Laden that Anwar al-Awlaki become its leader, but bin Laden had denied the request.

[91] For example, see Stanford University's Mapping Terrorist Organizations project, http://fsi.stanford.edu/research/mapping_terrorist_organizations/, and conference papers related to terrorist group desistance presented at the February 17-20, 2010 International Studies Association Conference, available at http://convention2.allacademic.com/one/isa/isa10/.

[92] Bruce Riedel, *The Search for Al Qaeda: Its Leadership, Ideology, and Future* (Washington, D.C.: Brookings Institution, 2008), p. 104.

[93] Gerges, *Journey of the Jihadist*, op. cit., pp. 200-201.

[94] A useful, short memoir concerning this underground group is Mohamed Sifaoui, *Inside Al Qa'ida: How I Infiltrated the World's Deadliest Terrorist Organization*, trans. George Miller (New York: Thunder's Mouth Press, 2004).

[95] Pflanz, "US Focus to Beat Al-Qaeda Shifting to Africa,"op. cit.

[96] Bruce Riedel, "Al-Qai'da's New Sinai Front," *The Daily Beast*, August 21, 2011, available at http://www.thedailybeast.com/articles/2011/08/21/al-qaeda-s-newest-front-in-sinai-could-deepen-arab-israeli-conflict.html.

[97] Bill Roggio, "Ansar al-Jihad Swears Allegiance to al-Qaeda's Emir," *The Long War Journal*, January 14, 2012, available at http://www.longwarjournal.org/archives/2012/01/ansar_al_jihad_swear.php#ixzz1kXkcwHPX.

[98] "Declaration of War against the Americans Occupying the Land of the Two Holy Places," first published in *Al Quds Al Arabi* in August 1996, available at the *PBS Newshour* website, http://www.pbs.org/newshour/terrorism/international/fatwa_1996.html.

[99] Jonathan Masters, "Al-Qaeda in the Arabian Peninsula (AQAP)," Council on Foreign Relations *Backgrounder*, December 7, 2011, available at http://www.cfr.org/yemen/al-qaeda-arabian-peninsula-aqap/p9369.

[100] Ibid.

[101] Bill Roggio, "Afghan Taliban Vow to Continue Jihad, Reject Afghan Constitution," *The Long War Journal*, January 12, 2012, available at http://www.longwarjournal.org/archives/2012/01/afghan_taliban_vows.php.

[102] Ibid.

[103] See Bill Roggio, "Al Qaeda Brigade 313 Website Goes Online," *The Long War Journal*, August 2, 2010, available at http://www.longwarjournal.org/archives/2010/08/al_qaeda_brigade_313_website_goes_online.php; and Jayshree Bajoria, "Pakistan's New Generation of Terrorists," Council on Foreign Relations *Backgrounder*, December 9, 2011, available at http://www.cfr.org/pakistan/pakistans-new-generation-terrorists/p15422.

[104] Coll, *Ghost Wars*, op. cit., pp. 221, 227, 439.

[105] Richard Miniter, *Mastermind: The Many Faces of the 9/11 Architect, Khalid Shaikh Mohammed* (New York: Sentinel/Penguin Group, 2011), p. 84.

[106] Cyril Payen et al., "Exclusive: On the Trail of Al Qaeda's Southeast Asian Soldiers," France24, June 20, 2011, available at http://www.france24.com/en/20110615-reporters-al-qaeda-asian-soldiers-osama-bin-laden-raid-terrorism-south-east-asia-umar-patek-jemaah-islamiah-jihadists.

[107] Dona Z. Pazzibugan, "Jemaah Islamiyah, Abu Sayyaf Now Merged, Says Antiterror Expert," *Philippine Daily Inquirer*, September 29, 2011, available at http://newsinfo.inquirer.net/67043/jemaah-islamiyah-abu-sayyaf-now-merged-says-antiterror-expert.

[108] Nima Elbagir, "Amisom Commander: Al Shabaab Receiving Weapons from Yemen," CNN, August 2, 2011, available at http://security.blogs.cnn.com/2011/08/02/amisom-commander-al-shabaab-receiving-weapons-from-yemen/.

[109] "Al-Qaeda Trying to Recruit Fighters in Libya: Officials," Agence France-Press, December 31, 2011, available at http://www.abs-cbnnews.com/global-filipino/world/12/31/11/al-qaeda-trying-recruit-fighters-libya-officials.

[110] Gerges, *Journey of the Jihadist*, op. cit., p. 84.

[111] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report* (Washington, D.C. GPO, 2004), p. 61; *United States of America. v. Usama Bin Laden, et al.*, S(7) 98 Cr. 1023, United States District Court, Southern District of New York, testimony of Jamal al-Fadl, February 6, 2001, pp. 287-291, available at http://cns.miis.edu/reports/binladen.htm; and court testimony of Ali Mohammed, in Bergen, *The Osama bin Laden I Know*, op. cit., p. 143.

[112] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 60. Scheuer, *Osama Bin Laden*, op. cit., pp. 198-199.

[113] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[114] Scheuer, *Osama Bin Laden*, op. cit., p. 154.

[115] Thomas Joscelyn, "DC Court: Iran Showed Al Qaeda How to Bomb Embassies," *The Long War Journal*, December 5, 2011, available at http://www.longwarjournal.org/archives/2011/12/dc_court_iran_showed.php.

[116] Riedel, *The Search for Al Qaeda*, op. cit., p. 114.

[117] Thomas Joscelyn, "Analysis: Al Qaeda's Interim Emir and Iran," *The Long War Journal*, May 18, 2011, available at http://www.longwarjournal.org/archives/2011/05/analysis_al_qaedas_i.php.

[118] Anna Fifield, "US Charges Iran with Al-Qa'ida Links," *The Financial Times*, July 28, 2011, available at http://www.ft.com/intl/cms/s/0/43c235e8-b936-11e0-b6bb-00144feabdc0.html#axzz1cHs0N8Cw.

[119] "US Accuses Pakistan of Exporting Violence to Afghanistan," Voice of America, September 22, 2011, available at http://www.voanews.com/english/news/asia/south/US-Military-Pakistan-Aided-Embassy-Attack--130354623.html.

[120] Coll, *Ghost Wars*, op. cit., p. 290. Coll quotes an interview with former Pakistani Prime Minister Benazir Bhutto.

[121] Mary Habeck, *Knowing the Enemy: Jihadist Ideology and the War on Terror* (New Haven, Conn.: Yale University Press, 2006), p. 138.

[122] Zawahiri is reported to be an enthusiast for Paul Kennedy's *The Rise and Fall of the Great Powers* (New York: Random House, 1987). See Abdel Bari Atwan, *The Secret History of al Qaeda* (Berkeley, Calif.: University of California Press, 2006), p. 227.

[123] Stout et al., *The Terrorist Perspectives Project*, op. cit., pp. 19-20.

[124] Ali al-Aliyani, "The Importance of Jihad, on the Goals of Jihad," in Cook, *Understanding Jihad*, op. cit., pp. 181-189.

[125] On p. 10, the magazine deprecates the accord in a message from al-Qa'ida leaders aiming to "reassure our people in Palestine in particular that we will expand our jihad—Allah permitting—and will neither recognize the borders of Sykes-Picot nor the rulers whom colonialism put in place." Another article on p. 21 returns to this theme.

[126] Stout et al., *The Terrorist Perspectives Project*, op. cit., p. 40.

[127] Habeck, *Knowing the Enemy*, op. cit., p. 188.

[128] "Declaration of War against the Americans Occupying the Land of the Two Holy Places," op. cit.

[129] See the evidence assembled in Bergen, *The Osama bin Laden I Know*.

[130] Transcript of Usama Bin Laden Video Tape, December 13, 2001, released by the Department of Defense, available at http://www.defense.gov/news/dec2001/d20011213ubl.pdf.

[131] Slavicek, "Deconstructing the Shariatic Justification of Suicide Bombing," op. cit., pp. 553-571.

[132] See the denunciations of "apostates" in Zawahiri's writings, and in the opening pages of the "Declaration of Jihad Against the Country's Tyrant," an al-Qa'ida training manual seized by the Manchester (England) Metropolitan Police during a search of the home of an al-Qa'ida member, available at http://www.justice.gov/ag/manualpart1_1.pdf.

[133] *United States of America. v. Usama Bin Laden, et al.*, testimony of Jamal al-Fadl, op. cit.; and National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 60.

[134] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[135] Stout et al., *The Terrorist Perspectives Project*, op. cit., p. 39.

[136] See, for example, Ayman al-Zawahiri et al., "Jihad, Martyrdom and the Killing of Innocents," in Raymond Ibrahim, ed., *The al-Qaeda Reader* (New York: Broadway Books, 2007), pp. 137-171.

[137] See the discussion in Kathleen Bailey et al., *Deterring al-Qaeda Bioterrorism: A Plausible Strategic Profile* (Fairfax, Va.: National Institute for Public Policy, 2008), pp. 9, 17.

[138] Stout et al., *The Terrorist Perspectives Project*, op. cit., pp. 139-140.

[139] See Jessica Stern, *Terror in the Name of God: Why Religious Militants Kill* (New York: HarperCollins Publishers, 2003); Stewart Bell, *The Martyr's Oath: The Apprenticeship of a Homegrown Terrorist* (Mississauga, Ontario: John Wiley and Sons, Canada, 2005); Clark R. McCauley and Mary E. Segal, "Social Psychology of Terrorist Groups," in Clyde Hendrick, ed., *Group Process and Intergroup Relations* (Thousand Oaks, Calif.: SAGE Publications, Inc., 1987); Della Porta, "Left-Wing Terrorism in Italy," op. cit.; and Sprinzak, "The Iceberg Model of Political Extremism," op. cit.

[140] Habeck, *Knowing the Enemy*, op. cit., p. 142.

[141] Ibid., p. 141, based on Sayid Qutb's *Milestones*.

[142] Stout et al., *The Terrorist Perspectives Project*, op. cit., p. 40.

[143] "Atiya's Letter to Zarqawi" (translated), December 2005, Harmony Program Documents, Combating Terrorism Center at West Point, available at http://www.ctc.usma.edu/posts/atiyahs-letter-to-zarqawi-english-translation.

[144] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[145] Christopher M. Blanchard, *Al Qaeda: Statements and Evolving Ideology*, RL32759 (Washington, D.C.: Congressional Research Service, July 9, 2007), available at http://fpc.state.gov/documents/organization/88748.pdf.

[146] Bergen, *The Osama bin Laden I Know*, op. cit., p. 348. Bergen cites a conversation with Pakistani journalist Hamid Mir, who had interviewed bin Laden in 2001 and 2002.

[147] Ignatius, "10 Years After 9/11, Al-Qaeda Is Down But Not Out," op. cit.

[148] Iran has been home to many of al-Qa'ida's most senior leaders, including *shura* council members, since shortly after 9/11. While ostensibly under house arrest, these leaders have been allowed to communicate with the group and to raise money.

[149] Carlotta Gall, "Afghan Tells of Ordeal at the 'Center of Al Qaeda,'" *The New York Times*, March 2, 2011, available at http://www.nytimes.com/2011/03/03/world/asia/03kidnap.html?pagewanted=all.

[150] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 67 (London), p. 127 (Albania).

[151] "Sit Reps by Shu'ayb al-Salihi, "The Monte Carlo correspondent" (translated), 1996/97, AQ-SHPD-D-001-177, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University.

[152] George J. Tenet, director of central intelligence, in Senate Select Committee on Intelligence, *Current and Projected National Security Threats to the United States*, S. Hrg. 107-597, 107th Cong., 2d sess. (Washington, D.C.: GPO, 2002), p. 128.

[153] See *Inspire*, Issue 3 (November 2011), p. 11. James Robbins offered this insight in a meeting with Christopher Harmon and the NIPP staff, March 7, 2011.

[154] Ignatius, "10 Years After 9/11, Al-Qaeda Is Down But Not Out," op. cit.

[155] Abu Musab al-Suri, "A Call to Global Islamic Resistance," as noted in numerous analyses, including Stout et al., *The Terrorist Perspectives Project*, op. cit., pp. 155-157; and Gartenstein-Ross and Dabruzzi, "Is Al-Qaeda's Central Leadership Still Relevant?" op. cit.

[156] Videotape shown on Al Jazeera on December 27, 2001.

[157] Leah Farrall, "How al Qaeda Works," *Foreign Affairs,* Vol. 90, No. 2 (March/April 2011), p. 135.

[158] See Mowatt-Larssen, *Al Qa'ida Weapons of Mass Destruction Threat*, op. cit.

[159] Yusufzi, "Conversations with Terror," op. cit.; Osama bin Laden statement, "Dangers and Signs of the Indian Nuclear Explosions," May 14, 1998, quoted in Bergen, *The Osama bin Laden I Know*, op. cit., pp. 339-340.

[160] Mowatt-Larssen, *Al Qa'ida Weapons of Mass Destruction Threat*, op. cit., pp. 14-15.

[161] Written response for the record, in Senate Select Committee on Intelligence, *Current and Projected National Security Threats to the United States*, S. Hrg. 111-62, 111th Cong., 1st sess. (Washington, D.C.: GPO, 2009), pp. 81-82.

[162] Some regional affiliates, including those in Indonesia, Iraq, and probably Yemen, have experimented with chemical and biological agents—anthrax, ricin, cyanide, chlorine, and radioactive materials. See Sammy Salama and Lydia Hansell, "Does Intent Equal Capability? Al-Qaeda and Weapons of Mass Destruction," *Nonproliferation Review*, Vol. 12, No. 3 (November 2005), pp. 615-653; and Eric Schmitt and Thom Shanker, "Qaeda Trying to Harness Toxins for Bombs, U.S. Officials Fear," *The New York Times*, August 12, 2011, available at http://www.nytimes.com/2011/08/13/world/middleeast/13terror.html?pagewanted=all.

[163] Stephen Nemeth, "The Effect of Competition on Terrorist Group Operations," Department of Political Science, Kansas State University, n.d., p. 25, available at http://www.k-state.edu/polsci/nemeth/index_files/researach.htm.

[164] Stout et al., *The Terrorist Perspectives Project*, op. cit., pp. 139-140.

[165] Gunaratna, *Inside Al Qaeda*, op. cit., p. 10.

[166] Kimberly Dozier, "AP Sources: bin Laden Files Prompt New Scrutiny," Associated Press, June 9, 2011, available at http://abcnews.go.com/Politics/wireStory?id=13798320#.TzAyFMity9s.

[167] CIA memorandum, July 14, 2002, attachment to Memorandum, Secretary of Defense Donald Rumsfeld to Deputy Secretary of Defense and others, subj: The Impact of Leaking Classified Information, July 12, 2002 (unclassified), available at http://www.rumsfeld.com.

[168] Michael Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaptation* (University Park, Pa.: Pennsylvania State University Press, 2007), pp. 161-162.

[169] "We Left Out Nuclear Targets, for Now," *Guardian*, March 3, 2003, available at http://www.guardian.co.uk/world/2003/mar/04/alqaida.terrorism.

[170] Allan Cullison, "Inside Al-Qaeda's Hard Drive," *Atlantic Monthly*, Vol. 294, No. 2 (September 2004), available at http://www.theatlantic.com/magazine/archive/2004/09/inside-al-qaeda-rsquo-s-hard-drive/3428/.

[171] Noman Benotman, quoted in Camille Twail, *The Other Face of Al-Qaeda* (London: Quilliam Foundation, November 2010), pp. 10-11, available at http://www.quilliamfoundation.org/index.php/component/content/article/728.

[172] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 153.

[173] Ibid., p. 153.

[174] Ibid., pp. 153-154.

[175] Gunaratna and Oreg, "Al Qaeda's Organizational Structure and its Evolution," op. cit., p. 1050.

[176] Ibid., p. 1054.

[177] Ibid., p. 1056.

[178] A useful review of the affiliates and their links to core al-Qa'ida is Anne Stenerson, et al., *Relationships and Rivalries: Assessing Al-Qaeda's Affiliate Network* (London: HIS Jane's Security and Military Consulting, 2010).

[179] Jemaah Islamiya developed two plots for attacks on Americans in Singapore but neither was executed. A lengthy reconnaissance tape with commentary by JI Singapore member Hashim bin Abas is described in Gunaratna, *Inside Al Qaeda*, op. cit., pp. 250-251.

[180] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 154.

[181] Ibid., pp. 152-153.

[182] Farrall, "How al Qaeda Works," op. cit., p. 133.

[183] Ibid., p. 134.

[184] Ibid., p. 135.

[185] Lewis A. Dunn, *Can al Qaeda Be Deterred from Using Nuclear Weapons?* Center for the Study of Weapons of Mass Destruction Occasional Paper No. 3 (Washington, D.C.: National Defense University Press, July 2005), p. 14, available at http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA438880.

[186] Foreign Broadcast Information Service, *Compilation of Usama Bin Laden Statements, 1994-January 2004*, Report, January 2004, For Official Use Only.

[187] Mohammed M. Hafez, "Tactics, *Takfir*, and anti-Muslim Violence," in Assaf Moghadam and Brian Fishman, eds., *Self-Inflicted Wounds: Debates and Divisions within al-Qa'ida and its Periphery* (West Point, N.Y.: Harmony Project, West Point Combating Terrorism Center, December 16, 2010), p. 39, available at http://www.ctc.usma.edu/posts/self-inflicted-wounds.

[188] Farrall, "How al Qaeda Works," op. cit., p. 135.

[189] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[190] Forest et al., *Harmony and Disharmony*, op. cit., p. 48.

[191] Andrew Kohut, et al., *Common Concerns About Islamic Extremism: Muslim-Western Tensions Persist* (Washington, D.C.: Global Attitudes Project, Pew Research Center, July 21, 2011), pp. 31-34; and *Osama bin Laden Largely Discredited Among Muslim Publics in Recent Years; al Qaeda Too* (Washington, D.C.: Global Attitudes Project, Pew Research Center, May 2, 2011), both available at http://www.pewglobal.org/.

[192] Exchange between NIPP staff and Cynthia Storer, a former intelligence analyst who has carefully studied al-Qa'ida for many years, July 15, 2011.

[193] James J.F. Forest, "Exploiting the Fears of Al-Qa'ida's Leadership," *CTC Sentinel*, Vol. 2, Issue 2 (February 2009), available at http://www.ctc.usma.edu/wp-content/uploads/2010/06/Vol2Iss2-Art4.pdf.

[194] See the discussion in Peter L. Bergen, *The Longest War: The Enduring Conflict between America and al-Qaeda* (New York: Free Press, 2011), pp. 297-300; Alex S. Wilner, "Deterring the Undeterrable: Coercion, Denial, and Delegitimization in Counterterrorism," *Journal of Strategic Studies*, Vol. 34, No. 1 (February 2011), pp. 30; and Bar, *Warrant for Terror*, op. cit., p. 72.

[195] Sheikh Salman al-Quda, quoted by Peter Bergen, in House Homeland Security Committee, *Reassessing the Threat: The Future of Al Qaeda and Its Implications for Homeland Security*, 110th Cong., 2d sess. (Washington, D.C.: GPO, 2009), p. 7.

[196] Cullison, "Inside Al-Qaeda's Hard Drive," op. cit.

[197] Exchange between NIPP staff and Cynthia Storer, July 15, 2011.

[198] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 252.

[199] Cullison, "Inside Al-Qaeda's Hard Drive," op. cit.

[200] Cited in John Stone, "Al Qaeda, Deterrence, and Weapons of Mass Destruction," *Studies in Conflict and Terrorism*, Vol. 32, No. 9 (September 2009), p. 766. See also Quintan Wiktorowicz and John Kaltner, "Killing in the Name of Islam: Al-Qaeda's Justification for September 11," *Middle East Policy*, Vol. 10, No. 1 (Summer 2003), pp. 76-92.

[201] George Tenet (with Bill Harlow), *At the Center of the Storm: My Years at the CIA* (New York: HarperCollins, 2007), p. 274.

[202] A copy of the document is available at http://carnegieendowment.org/static/npp/fatwa.pdf

[203] "'Al-Qaeda' Denies Jordan WMD Plot," BBC News, April 30, 2004, available at http://news.bbc.co.uk/2/hi/middle_east/3672891.stm.

[204] Letter from al-Zawahiri to al-Zarqawi (July 9, 2005), op. cit.

[205] Abdul Hameed Bakier, "Al-Qaeda's al-Zawahiri Repudiates Dr. Fadl's 'Rationalization of Jihad,'" *Terrorism Focus*, Vol. 5, No. 17 (April 30, 2008), available at http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=4891.

[206] "The Open Meeting with Shaykh Ayman al-Zawahiri," As-Shab Media, April 2, 2008, http://www.washingtonpost.com/wp-srv/world/OpenMeetingZawahiri_Part1.pdf.

[207] Michael E. Leiter, director, National Counterterrorism Center, in House Homeland Security Committee, *Understanding the Homeland Threat Landscape—Considerations for the 112th Congress*, 112th Cong., 1st sess. (Washington, D.C.: GPO, 2012), p. 2; and Karen DeYoung, "U.S. Sets Sights on Haqqani Network," *The Washington Post*, October 15, 2011.

[208] Bergen, *The Longest War*, op. cit., pp. 40-41, 47.

[209] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., pp. 251-252.

[210] Noman Benotman, quoted in Twail, *The Other Face of Al-Qaeda*, op. cit., pp. 13-14, 17.

[211] Martha Crenshaw, "Coercive Diplomacy and the Response to Terrorism," in Robert J. Art and Patrick M. Cronin, eds., *The United States and Coercive Diplomacy* (Washington, D.C.: United States Institute of Peace, 2003), pp. 335-342, 345-346; and Cable, Department of State, Washington, D.C. to U.S. Embassy in Islamabad, subj: Message to Taliban, October 7, 2001, SECRET/NODIS/EYES ONLY (declassified February 22, 2011), in Barbara Elias, ed., "Secret Message to Mullah Omar: 'Every Pillar of the Taliban Regime Will Be Destroyed," *National Security Archive Electronic Briefing Book No. 358*, September 11, 2011, available at http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB358a/doc16.pdf.

[212] Joshua Partlow, "Bin Laden's Death is New Test of Ties Between Taliban, Al-Qaeda," *The Washington Post*, May 20, 2011.

[213] Dan Rassler and Vahid Brown, *The Haqqani Nexus and the Evolution of al-Qa'ida* (West Point, N.Y.: West Point Combating Terrorism Center, July 14, 2011), p. 40, available at http://www.ctc.usma.edu/posts/the-haqqani-nexus-and-the-evolution-of-al-qaida.

[214] Matthew G. Olsen, director, National Counterterrorism Center, prepared statement before the Senate Homeland Security and Governmental Affairs Committee, September 13, 2011, p. 3, available at http://www.hsgac.senate.gov/hearings/ten-years-after-9/11-are-we-safer.

[215] Jayshree Bajoria and Eben Kaplan, "The ISI and Terrorism: Behind the Accusations," Council on Foreign Relations *Backgrounder*, May 4, 2011, available at http://www.cfr.org/pakistan/isi-terrorism-behind-accusations/p11644; Adm. Michael Mullen, chairman, Joint Chiefs of Staff, prepared statement before the Senate Armed Services Committee, September 22, 2011, available at http://armed-services.senate.gov/statemnt/2011/09%20September/Mullen%2009-22-11.pdf; and Jeffrey Goldberg and Marc Ambinder, "The Ally From Hell," *The Atlantic*, December 2011, available at http://www.theatlantic.com/magazine/archive/2011/12/the-ally-from-hell/8730/.

[216] Karen DeYoung and Karin Brulliard, "Change Overdue in U.S.-Pakistan Relationship, Key Officials Say," *The Washington Post*, May 15, 2011; and Joby Warrick and Karin Brulliard, "Clinton Warns Pakistan About Havens for Insurgents," *The Washington Post*, October 21, 2011.

[217] *TE-SAT 2010: EU Terrorism Situation and Trend Report 2010* (The Hague: Europol, 2010), p. 13, available at http://www.consilium.europa.eu/uedocs/cmsUpload/TE-SAT%202010.pdf.

[218] Information on the operation comes from Dale Watson, chief, International Terrorism Section, National Security Division, Federal Bureau of Investigation, prepared statement before the Technology, Terrorism, and Government Information Subcommittee, Senate Judiciary Committee, February 24, 1998, available at http://www.fas.org/irp/congress/1998_hr/s980224w.htm; John V. Parachini, "The World Trade Center Bombers (1993)," in Jonathan B. Tucker, ed., *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons* (Cambridge, Mass.: MIT Press, 2000), pp. 194-195; John Miller and Michael Stone (with Chris Miller), *The Cell: Inside the 9/11 Plot and Why the FBI and CIA Failed to Stop It* (New York: Hyperion, 2002), pp. 79, 135; and National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 147.

[219] National Commission on Terrorist Attacks Upon the United States, "Overview of the Enemy," *Staff Statement No. 15*, n.d., p. 10; and Stuart A. Levey (under secretary of the treasury for terrorism and financial intelligence), "Loss of Moneyman a Big Blow for Al-Qaeda," *The Washington Post*, June 6, 2010.

[220] Department of the Treasury, "Treasury Continues Efforts Targeting Terrorist Organizations Operating in Afghanistan and Pakistan," press release, September 29, 2011, available at http://www.treasury.gov/press-center/press-releases/Pages/tg1316.aspx.

[221] Remarks by Under Secretary for Terrorism and Financial Intelligence David S. Cohen at Treasury's Counter-Terrorist Financing Symposium, September 8, 2011, Department of Treasury press release, available at http://www.treasury.gov/press-center/press-releases/Pages/tg1293.aspx. See also David L. Glaser, assistant secretary of the treasury for terrorist financing, prepared statement before the Oversight and Investigations Subcommittee, House Financial Services Committee, September 6, 2011, available at http://financialservices.house.gov/UploadedFiles/090611glaser.pdf.

[222] Associated Press, "Times Square Bomb Plot May Have Cost $7K," May 9, 2010, available at http://www.usatoday.com/news/nation/2010-05-08-nyc-bomb-plot_N.htm; and National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 169.

[223] National Commission on Terrorist Attacks Upon the United States, "Overview of the Enemy," op. cit., p. 12; Bergen, *The Longest War*, op. cit., p. 221.

[224] Hamid Mir, "Enough Rope with Andrew Denton," Australian Broadcasting Corporation, March 22, 2004, transcript.

[225] John Roth, Douglas Greenberg, and Serena White, "Monograph on Terrorist Financing," Staff Report to the Commission, National Commission on Terrorist Attacks Upon the United States, n.d., pp. 27-28.

[226] Tenet, *At the Center of the Storm*, op. cit., p. 272.

[227] David Albright, *Peddling Peril: How the Secret Nuclear Trade Arms America's Enemies* (New York: Free Press, 2010), pp. 169-184.

[228] The official was Rolf Mowatt-Larssen, chief of the weapons of mass destruction department, Counterterrorist Center. Tenet, *At the Center of the Storm*, op. cit., pp. 270-271.

[229] Eben Harrell, "Nuclear Proliferation: The Crime with No Punishment?" *Time/time.com*, September 16, 2011, available at http://www.time.com/time/world/article/0,8599,2092585,00.html.

[230] Tenet, *At the Center of the Storm*, op. cit., p. 261. See also Albright, *Peddling Peril*, op. cit., p. 167.

[231] Michael Hayden, "State of al Qaeda Today," remarks to the Atlantic Council of the United States, November 13, 2008, Federal News Service transcript, available at http://www.acus.org/http:/%252Fwww.acus.org/event_blog/cia-director-event-transcript.

[232] Ali H. Soufan, *The Black Banners: The Inside Story of 9/11 and the War Against al-Qaeda* (New York: W.W. Norton & Co., 2011), pp. 34, 36, 42-45, 66-69, 71-72.

[233] Ibid., pp.121-130; and *United States of America. v. Usama Bin Laden, et al.*, S(9) 98 Cr. 1023, United States District Court, Southern District of New York, testimony of L-Houssaine Kherchtou, February 22, 2001, pp. 1283-1284.

[234] Peter Bergen, "War of Error," *The New Republic*, October 22, 2007, available at http://www.tnr.com/article/politics/war-error.

[235] Peter Bergen and Paul Cruickshank, "The Unraveling," *The New Republic*, June 11, 2008, available at http://www.tnr.com/article/the-unraveling.

[236] Interview with Abas, "Insight," CNN, December 22, 2005, transcript, available at http://transcripts.cnn.com/TRANSCRIPTS/0512/22/i_ins.01.html.

[237] Soufan, *The Black Banners*, op. cit., pp, 320-321.

[238] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 526.

[239] Michael Jacobson, "Why Terrorists Quit: Gaining Insight From Al-Qa'ida's Losses," *CTC Sentinel*, Vol. 1, Issue 8 (July 2008), pp. 2, 3, available at http://www.ctc.usma.edu/wp-content/uploads/2010/06/Vol1Iss8-Art1.pdf.

[240] Ibid., p. 2.

[241] Ibid., p. 3.

[242] Jerrold M. Post, Ehud Sprinzak, and Laurita M. Denny, "The Terrorists in Their Own Words: Interviews with 35 Incarcerated Middle Eastern Terrorists," *Terrorism and Political Violence*, Vol. 15, No. 1 (Spring 2003), pp. 180-181.

[243] Brian Fishman and Assaf Moghadam, "Do Jihadi and Islamist Divisions Matter? Implications for Policy and Strategy," in Assaf Moghadam and Brian Fishman, eds., *Self-Inflicted Wounds: Debates and Divisions within al-Qa'ida and its Periphery* (West Point, N.Y.: Harmony Project, West Point Combating Terrorism Center, December 16, 2010), p. 240, available at http://www.ctc.usma.edu/posts/self-inflicted-wounds.

[244] Letter, "'Abd-Al-Halim-Adl to 'Mukhtar,'" June 13, 2002, pp. 1,2, available at www.ctc.usma.edu/posts/al-adl-letter.

[245] Remarks by Under Secretary for Terrorism and Financial Intelligence David S. Cohen, op. cit.; Dina Temple-Raston, "Al-Qaida's Paper Trail: A 'Treasure Trove' For U.S.," National Public Redio, May 31, 2011, available at http://www.npr.org/2011/05/31/136721965/al-qaidas-paper-trail-a-treasure-trove-for-u-s. In a niggling memo to an operative in Yemen, Zawahiri demanded details on how $22,000 was spent, at one point asking, "Why did you buy a new fax for $470? Where are the two old faxes? Did you get permission before buying a new fax under such circumstances?" Cullison, "Inside Al-Qaeda's Hard Drive," op. cit.

[246] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, p. 109.

[247] John Brennan in Briefing by Press Secretary Robert Gibbs and Assistant to the President for Counterterrorism and Homeland Security John Brennan, Office of the White House Press Secretary, April 12, 2010, transcript, available at http://www.whitehouse.gov.

[248] Gunaratna and Oreg, "Al Qaeda's Organizational Structure and its Evolution," op. cit., p. 1059.

[249] Ibid., p. 1062.

[250] Exchange between NIPP staff and Cynthia Storer, July 15, 2011. Ms. Storer cited materials in the Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University. See also James R. Clapper, director of national intelligence, "Worldwide Threat Assessment of the US Intelligence Community," statement for the record submitted to the Senate Select Committee on Intelligence, January 31, 2012, p. 2, available at http://www.dni.gov/testimonies/20120131_testimony_ata.pdf.

[251] National Commission on Terrorist Attacks Upon the United States, "Overview of the Enemy," op. cit., p. 3.

[252] Vahid Brown, "Al-Qa'ida Central and Local Affiliates," in Assaf Moghadam and Brian Fishman, eds., *Self-Inflicted Wounds: Debates and Divisions within Al-Qa'ida and its Periphery* (West Point, N.Y.: Harmony Project, West Point Combating Terrorism Center, December 16, 2010), p. 93, available at http://www.ctc.usma.edu/posts/self-inflicted-wounds.

[253] Bergen, *The Longest War,* op. cit., p. 7.

[254] Brown, "Al-Qa'ida Central and Local Affiliates," op. cit., pp. 88-89.

[255] Ibid., p. 89.

[256] Exchange between NIPP staff and Cynthia Storer, July 15, 2011.

[257] Fawaz A. Gerges, *The Far Enemy: Why Jihad Went Global* (Cambridge: Cambridge University Press, 2005), pp. 102-103.

[258] Vahid Brown, *Cracks in the Foundation: Leadership Schisms in Al-Qaida from 1989-2006* (West Point, N.Y.: Harmony Project, West Point Combating Terrorism Center, September 2007), p. 22, available at http://www.ctc.usma.edu/posts/cracks-in-the-foundation-leadership-schisms-in-al-qaida-from-1989-2006.

[259] A Yemeni doctor who was caring for al-Qa'ida wounded during the battle of Tora Bora later complained that bin Laden "seemed mainly preoccupied with his own escape" and "didn't care about anyone but himself." Bergen, *The Longest War*, op. cit., p. 75.

[260] The position of head of the military committee (or "chief of staff"), for example, is never open very long, even though the incumbent usually ends up imprisoned or dead. Gunaratna and Oreg, "Al Qaeda's Organizational Structure and its Evolution," op. cit., p. 1058.

[261] From "*Al –Majallah* Obtains Bin Laden's Will," *Al-Majallah*, October 27, 2002, quoted in Senate Foreign Relations Committee, *Tora Bora Revisited: How We Failed to Get Bin Laden and Why It Matters Today*, S. Prt. 11-35, 111th Cong., 1st sess. (Washington, D.C.: GPO, 2009), pp. 2, 31.

[262] Lawrence Wright, *The Looming Tower: Al-Qaeda and the Road to 9/11* (New York: Alfred A. Knopf, 2006), p. 55.

[263] Andrew O. Selsky, "Accused 9/11 Mastermind Asks Judge to be Executed," Associated Press, June 5, 2008, available at http://www.usatoday.com/news/topstories/2008-06-04-146165448_x.htm.

[264] Quoted in Jerrold M. Post, "Actor-Specific Behavioral Models of Adversaries: A Key Requirement for Tailored Deterrence," in Barry R. Schneider and Patrick D. Ellis, eds., *Tailored Deterrence: Influencing States and Groups of Concern* (Maxwell Air Force Base, Ala.: USAF Counterproliferation Center, May 2011), p. 29.

[265] Forest, "Exploiting the Fears of Al-Qa'ida's Leadership," op. cit.

[266] Charlie Savage, "As Acts of War or Despair, Suicides Rattle a Prison," *The New York Times*, April 24, 2011, available at http://www.nytimes.com/2011/04/25/world/guantanamo-files-suicide-as-act-of-war-or-despair.html.

[267] Ian Black and Richard Norton-Taylor, "Al-Qaida Faces Recruitment Crisis, Anti-Terrorism Experts Say," *Guardian*, September 10, 2009, available at http://www.guardian.co.uk/world/2009/sep/10/al-qaida-recruitment-crisis.

[268] Transcript of Usama Bin Laden Video Tape, op. cit., p. 2.

[269] Exchange between NIPP staff and Cynthia Storer, July 15, 2011.

[270] "Intelligence training chapters, entitled 'Dealing with the Enemy,' 'Creating Agents,' and 'Operations Security'" (translated), circa late 1990s, AQ-INSE-D-000-118, Al Qaeda and Associated Movements Collection, Conflict Records Research Center, National Defense University, available at http://www.ndu.edu/inss/docuploaded/AQ-INSED-000-118.pdf.

[271] Senate Select Committee on Intelligence and House Permanent Select Committee on Intelligence, *Joint Inquiry Into Intelligence Community Activities Before and After the Terrorist Attacks of September 11, 2001*, S. Rpt. No. 107-351/H. Rpt. No. 107-792, 107th Cong., 2d sess. (Washington, D.C.: GPO, December 2002), p. 196, available at http://www.gpoaccess.gov/serialset/creports/911.html.

[272] Angel Rabasa et al., *Beyond al-Qaeda: The Global Jihadist Movement, Part 1*, MG-429 (Santa Monica, Calif.: RAND Corp., 2006), p. 64.

[273] National Commission on Terrorist Attacks Upon the United States, "Outline of the 9/11 Plot," *Staff Statement No. 16*, n.d., pp. 1-2.

[274] Forest, "Exploiting the Fears of Al-Qa'ida's Leadership," op. cit.

[275] Tenet, *At the Center of the Storm*, op. cit., p. 245.

[276] Bergen, *The Longest War*, op. cit., p. 207.

[277] National Commission on Terrorist Attacks Upon the United States, "Outline of the 9/11 Plot," op. cit., pp. 12-14.

[278] Memorandum, Deputy Secretary of Defense Paul Wolfowitz to Deputy Attorney General James B. Comey, "Summary of Jose Padilla's Activities with Al Qaeda," May 28, 2004, pp. 4-5, available at http://www.gwu.edu/~nsarchiv/nukevault/ebb270/05.pdf; and Bergen, *The Osama bin Laden I Know*, op. cit., p. 421 (fn 15).

[279] Director of Central Intelligence, Central Intelligence Agency, *Khalid Shaykh Muhammad: Preeminent Source on Al-Qa'ida*, July 13, 2004 (partially declassified), pp. i, 7, available at http://ccrjustice.org/files/CIA%20KSM%20Preeminent%20Source.pdf.

[280] Serialized excerpts from Zawahiri's book "Knights Under the Prophet's Banner," *Al-Sharq Al Awsat*, December 2, 2001, translated in FBIS (Foreign Broadcast Information Service)-NES-2002-0108.

[281] Ofer Zwikael, "Al Qaeda's Operations: Project Management Analysis," *Studies in Conflict and Terrorism*, Vol. 30, No. 2 (March 2007), p. 274.

[282] Exchange between NIPP staff and Cynthia Storer, July 15, 2011; and Stout, et al., *The Terrorist Perspectives Project*, op. cit., pp. 120-123.

[283] John Cloon, quoted in Kenney, *From Pablo to Osama*, op. cit., pp. 159-160.

[284] Eric Schmitt and Thom Shanker, "After 9/11, an Era of Tinker, Tailor, Jihadist, Spy," *The New York Times*, August 6, 2011, available at http://www.nytimes.com/2011/08/07/sunday-review/after-911-an-era-of-tinker-tailor-jihadist-spy.html?pagewanted=all.

[285] Jeffrey B. Cozzens, "Victory From the Prism of Jihadi Culture," *Joint Force Quarterly*, Issue 52 (January 2009), pp. 86-91, available at http://www.ndu.edu/press/lib/images/jfq-52/18.pdf.

[286] Exchange between NIPP staff and Cynthia Storer, July 15, 2011.

[287] David P. Petraeus, director, Central Intelligence Agency, prepared statement before the Senate Select Committee on Intelligence and the House Permanent Select Committee on Intelligence, September 13, 2011, p. 4, available at http://intelligence.senate.gov/110913/petraeus.pdf; November 2011 issue of *Inspire*, magazine of al-Qa'ida in the Arabian Peninsula; Bergen, *The Longest War*, op. cit., pp. 91-92, 203; Ramzi Binalshibh, draft titled "The Truth About the New Crusade: A Ruling on the Killing of Women and Children of the Non-Believers" and memo from Usama bin Laden to Mullah Mohammed Omar, October 3, 2001, both quoted in Cullison, "Inside Al-Qaeda's Hard Drive," op. cit.

[288] Marc Sageman, prepared statement in Senate Foreign Relations Committee, *Confronting Al-Qaeda: Understanding the Threat in Afghanistan and Beyond*, S. Hrg. 111-363, 111th Cong., 2d sess. (Washington, D.C.: GPO, 2010), pp. 14, 19.

[289] Bin Laden, bin Laden, and Sasson, *Growing Up bin Laden*, op. cit., pp. 279-280.

[290] See, for example, National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., pp. 251-252.

[291] Bergen, *The Longest War*, op. cit, pp. 4, 7, 46-47, 90; and Soufan, *The Black Banners*, op. cit., p. 265.

[292] "The Story of the Arab Afghans From the Time of Arrival in Afghanistan Until Their Departure With the Taliban," excerpt published in *Al-Sharq al-Awsat*, December 8, 2004, p. 11, and December 9, 2004, p. 15, Open Source Center translations GMP20041208000121 and GMP20041210000119.

[293] The White House, *National Strategy for Counterterrorism*, op. cit., p. 1.

[294] The White House, *Report on Afghanistan and Pakistan* (Washington, D.C.: The White House, March 2011), pp. 3, 4, available at http://abcnews.go.com/images/Politics/UNCLASS%20Report%20on%20Afghanistan%20and%20Pakistan.pdf.

[295] Munir Ahmed, "Al-Qaida Leader Admits Facing Pressure from Drones," Associated Press, January 27, 2011, available at http://www.foxnews.com/world/2011/01/27/al-qaida-leader-admits-facing-pressure-drones/. The media chief was Ustadh Ahmad Farooq.

[296] Lt. Gen. Ronald L. Burgess, Jr., director, Defense Intelligence Agency, in Senate Armed Services Committee, *The Current and Future Worldwide Threats to the National Security of the United States*, S. Hrg. 112-159, 112th Cong., 1st sess. (Washington, D.C.: GPO, 2011), p. 34.

[297] Mark Landler and Helene Cooper, "Qaeda Woes Fuel Talk of Speeding Afghan Pullback," *The New York Times*, June 18, 2011, available at http://www.nytimes.com/2011/06/19/world/asia/19policy.html?pagewanted=all. See also Statement by the President, Office of the White House Press Secretary, December 8, 2011, transcript, available at

http://www.nytimes.com/2011/06/19/world/asia/19policy.html?pagewanted=all. As part of his remarks, President Obama noted that "22-out-of-30 top al Qaeda leaders [have] been taken off the field."

[298] Robert S. Mueller III, director, Federal Bureau of Investigation, in Senate Judiciary Committee, *The President's Request to Extend the Service of Director Robert Mueller of the FBI Unit*, S. Hrg. 112-94, 112th Cong., 1st sess. (Washington, D.C.; GPO, 2011), p. 85.

[299] Kimberly Dozier, "AP Sources: Bin Laden Documents Sharpen US Aim," Associated Press, June 8, 2011, available at http://abcnews.go.com/Politics/wireStory?id=13794257#.TzBl18ity9s.

[300] Burgess, *The Current and Future Worldwide Threats to the National Security of the United States*, op. cit., p. 42.

[301] Serialized excerpts from Zawahiri's book "Knights Under the Prophet's Banner," op. cit.

[302] See, for example, the December 18, 2002 Washington Post-ABC News poll cited in note 3.

[303] Matthew Kroenig, Georgetown University, "How to Deter Terrorism," unpublished manuscript, February 4, 2010, p. 27.

[304] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, op. cit., p. 222.

[305] Efraim Benmelech, Claude Berrebi, and Esteban Klor, *Counter-Suicide-Terrorism: Evidence from House Demolitions*, Working Paper No. 16493 (Cambridge, Mass.: National Bureau of Economic Research, October 2010), available at http://www.nber.org/papers/w16493.

[306] Kroenig, "How to Deter Terrorism," op. cit., p. 16.

[307] National Commission on Terrorist Attacks Upon the United States, "Overview of the Enemy," op. cit., p. 11.

Appendix:
A Methodology for Developing Deterrence Strategy

The study of deterrence and core al-Qa'ida was conducted by following a methodology exercised and refined over two decades by National Institute for Public Policy (NIPP). This methodology responds to the inadequacy of the rational actor model as a template for deterrent strategy. The approach developed by National Institute has proven itself versatile as a general guide for informing the development of deterrent strategies for state and non-state opponents.

The Problem[1]

During the Cold War, U.S. deterrent strategies and related strategic force acquisition measures of merit were predicated on specific but typically implicit expectations of opponent decision making and behavior. These expectations followed from the application of a narrowly defined "rational actor" model to the question of how opponents should be expected to make decisions and behave in response to U.S. deterrent strategies. U.S. policy makers and planners did not obviously use this model in a formal sense (although formal modeling can be seen in some academic writings on the subject) but, with a few notable exceptions, it was reflected in expressed assumptions about how the Soviet leadership would behave (i.e., predictably and reasonably) and, correspondingly, how U.S. deterrence policy was expected to function.[2]

This rational actor model, as applied, postulated that an opponent's decision making would follow from a predictable structured process deemed by U.S. observers to be rational: the opponent was expected to ascertain its specific conditions and identify alternative courses of action; it then would estimate the possible consequences of alternative courses of action and choose the specific course expected to have the highest utility in serving its hierarchy of goals, i.e., the chosen alternative(s) would have the highest expected utility value. In short, the opponent's expected response to U.S. deterrent threats would be determined logically by its drive to maximize value—with the calculation that some options would be more likely than others to serve that goal.[3] This decision-making process has been labeled "procedural rationality."[4] The expectation that the opponent's decision making would follow this process is

[1] This discussion of the problem and solutions is adapted from Dr. Keith Payne, Study Director, *Understanding Deterrence* (Fairfax, Va.: National Institute for Public Policy, October 2010). .

[2] See for example, Peter Pry, *Ideology as a Factor in Deterrence* (Fairfax, Va.: National Institute for Public Policy, June 2010); and, Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice From the Cold War to the Twenty-First Century* (Fairfax, Va.: National Institute Press, 2008), Chapters 4-6.

[3] Two comprehensive and useful discussions of rational decision making in deterrence theory are Stephen Maxwell, *Rationality in Deterrence*, Adelphi Paper No. 50 (London: Institute for Strategic Studies, August 1968), and Frank Zagare, "Rationality and Deterrence," *World Politics*, Vol. 42, No. 2 (January 1990), pp. 238-260.

[4] See the useful discussion in Alex Hybel, *Power Over Rationality* (Albany, N.Y.: State University of New York, 1993), pp. 16-19.

prevalent in the study of international relations,[5] and nowhere more so than as the core assumption of U.S. deterrence theory and policy.[6]

As applied in U.S. deterrence theory and policy, the unstated assumption was and often remains that any truly "rational" opponent's cost-benefit calculations of expected utility will be governed by a generally predictable set of perceptions, norms, goals and values. Western authors of U.S. deterrence theory and policy typically deemed their own set and hierarchy of perceptions, norms, goals and values to be virtually universal—and thus shared by all "rational" opponents. Their decision making and behavior were considered predictable precisely because they were expected to follow these known, familiar perceptions, norms, goals and values, i.e., those that were considered rational by Western observers.

The rational actor model was developed by economists as a basic "premise" of the field and applied initially to the behavior of individuals or groups.[7] The fundamental flaws of this attempt to explain human behavior has since been recognized by at least some Wall Street professionals. A former Wall Street quantitative analyst who spent over 20 years developing models to explain and predict financial trends recently wrote of the dangers of relying on such models of human behavior. He concluded:

> The simple models they [economists] work with fail to reflect the complex reality of the world around them. That lack of success is not the fault of economists, for people have proved difficult to theorize about ... but it is the economists' fault that they took their simple models so seriously.[8]

The rational actor model, narrowly applied, has been a preferred guide for the basic parameters of U.S. strategic deterrence planning, in part because it requires little detailed knowledge of an adversary in the areas of an opponent's unique decision calculus. And, because Western values typically have been inserted as the basis for enemy cost-benefit calculations, the conclusions drawn from this model have suggested the relative ease of successful deterrence. Therein is the heart of the problem. Deterrence in many cases is not easy or assured and assuming that the adversary holds values roughly similar to our own will, at least on occasion, be a flawed assumption which leads to invalid conclusions about what deters.

The Solution

The Department of Defense (DoD) has expressed recognition of the inadequacy of the rational actor model for some time. The 2001 Nuclear Posture Review called for deterrence strategies

[5] "Rational choice" has rightfully been described as the "most influential paradigm" in the study of international relations. Jack Levy, "Prospect Theory, Rational Choice, and International Relations," *International Studies Quarterly*, Vol. 41, No. 1 (March 1997), p. 87.

[6] See, Payne, *The Great American Gamble*, op. cit., Chapter 3-6.

[7] The "basic postulate of all economics" is that, "incentives matter—choice is influenced in a predictable way by changes in incentives. This is probably the most important guidepost in economic thinking." James D. Gwartney, et al., *Microeconomics: Private and Public Choice* (Mason, Ohio: South-Western Cengage Publishing, 2009), p. 10.

[8] Emanuel Derman, *Models Behaving Badly: Why Confusing Illusion with Reality Can Lead to Disaster on Wall Street and Life* (New York: Free Press, 2001), p. 144.

"tailored" to each potential adversary and, in response, U.S. Strategic Command was tasked with developing such tailored strategies. This approach was affirmed in the report of the 2010 Quadrennial Defense Review: "Credibly underwriting U.S. defense commitments will demand tailored approaches to deterrence. Such tailoring will demand an in-depth understanding of the capabilities, values, intent and decision making of potential adversaries, whether they are individuals, networks, or states."[9] However, progress toward this goal appears to have been slow at best. A report by the Defense Science Board (DSB) commented on the continuing widespread presumption among Defense Department officials that deterrent strategies consistent with that conceived during the Cold War will preclude nuclear and other WMD attacks on the United States and its allies.[10] The DSB observation testifies that DoD intentions to develop "tailored" deterrent strategies remain a largely unmet goal.

The proposed solution follows an approach which has been developed and practiced by National Institute. It is based on a methodology which seeks to learn as much as possible about the goals and values of the adversary and the factors which contribute to the adversary's value and risk criteria with respect to the specific deterrence issue. Implementation of the methodology calls for an iterative process involving a multidisciplinary deterrence analysis team for each opponent.

The methodological framework suggested in this study is intended to facilitate the identification of an opponent's unique set of decision making values and to understand how they, singularly and in concert, are likely to affect that opponent's decision making pertinent to potential U.S. deterrence strategies and goals. This is not necessarily a rejection of the assumption of procedural rationality—unless the evidence regarding the opponent suggests as much. Rather, it is a methodology that attempts to take into consideration the great variation in decision making that is possible within the context of procedural rationality, and to help identify those occasions when opponent decision making may not reflect procedural rationality.

In the absence of careful study, the value perceived by an adversary accruing from a particular action, as well as the perceived loss from the risks and costs involved, will be unknown to US deterrence planners. The perceived net value of a specific action could be a function of weighted value (benefits) associated with culture, religion, ideology, geopolitics, government structure, domestic politics, and other factors. The exact weighting of the value function most likely occurs in the mind of adversary decision makers; it is not static but likely to evolve as contextual factors and leadership roles change. While some details will remain inaccessible to deterrence planners, informed judgments on which factors are most likely to influence an adversary's worldview and decision calculus can be extremely useful for deterrence planning. A previous National Institute study analyzed eight possible factors which have been demonstrated to influence deterrence dynamics:[11]

---

[9] Department of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: Department of Defense, February 2010), p. 14.

[10] Defense Science Board 2007 Summer Study, *Challenges to Military Operations in Support of National Interests, Vol. 1: Executive Summary* (Washington, D.C.: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, December 2008), p. 7.

[11] The study results are summarized in *Understanding Deterrence*, op. cit.

- evolutionary psychology and cognition;
- culture;
- ideology;
- religion;
- geopolitics;
- government (leadership) structure;
- domestic politics; and,
- acquisition of nuclear weapons.

Factors such as these (and many others) can combine in a variety of ways to affect an adversary's decision calculus. Figure 1 below provides a conceptual view of how these factors could combine in various ways to influence an adversary's decision in a particular context.

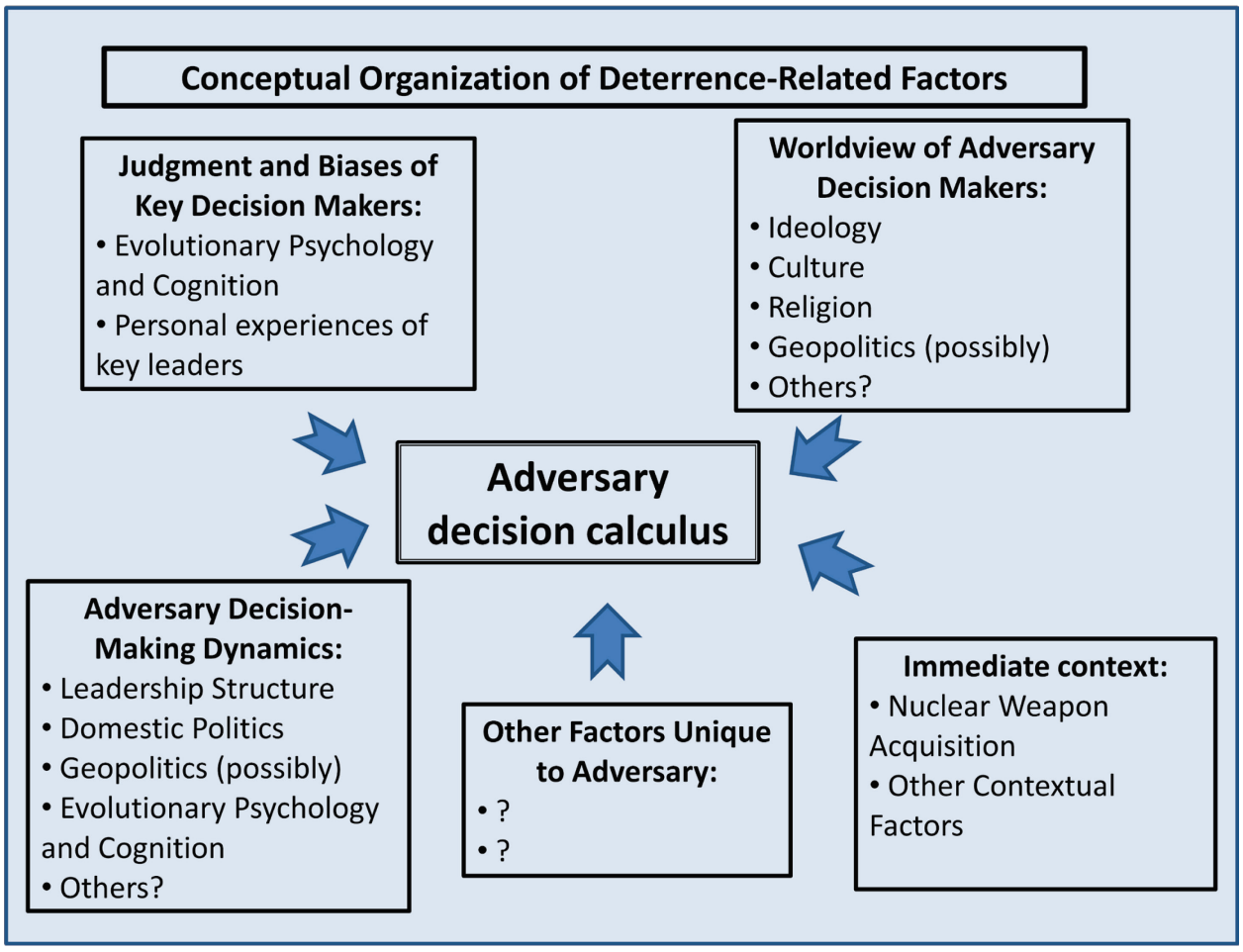

Figure 1. Conceptual View of Deterrence-Related Factors

Even a cursory investigation of the factors most pertinent to a specific opponent and deterrence goal can provide a useful step ahead toward better understanding of perceptions through an adversary's eyes. For some adversaries, some factors could be ruled out as unlikely to play a decisive role in decision making. The remaining factors may then be examined further by a team composed of appropriate professional disciplines. The multidisciplinary team would then

conduct a significant investigation of the role of the factors deemed of greatest influence on those making the decisions. Figure 2 depicts a matrix of some of the factors and issues that should be considered.

Factor:	Costs (Direct and Imposed)	Benefits (Goals and Values)	Restraint (Freedom of Action to Delay , Conciliate)
Psychology			
Culture			
Ideology			
Religion			
Geopolitics			
Leadership Structure			
Domestic Politics			
Others (?)			

Figure 2. Matrix of Possible Factors and Issues Influencing Adversary Decisions

On occasion, generalization from a single factor to specific decision making may be reasonable—for example, when ideology or religion is so decisive that other factors essentially are of little salience. In other cases, the value of generalizations from a single factor will be overshadowed by the number and salience of the broader set of factors that shape opponent decision making (e.g., some of which may apply uniquely to individual leaders, such as personality and health), and how these factors combine to create the opponent's decision calculus in the context of interest.

A more detailed discussion of the inadequacies of the rational actor model can be found in numerous open source documents.[12] A step-by-step description of the proposed process involving a multidisciplinary deterrence analysis team and leading to a deterrence strategy for a specified opponent and objective is provided next.

The Process

Studies by NIPP of deterrence of states and non-state actors, including this study of al-Qa'ida, have followed a general investigative process which has been refined over the years.[13] No strict

[12] See, for example, Payne, *The Great American Gamble*, op. cit.; and Payne, *Understanding Deterrence*, op. cit.

[13] See, for example, *A New Deterrence Framework and Its Application to a Sino-American Crisis*, executive briefing (July 2000); *Deterrence and the People's Republic of China*, summary briefing (2006); *Influencing the Islamic*

formulaic approach to effective deterrence is possible, but a general approach to strategy development has proven its merit. The functioning of deterrence relies heavily on highly variable and sometimes unique psychological issues and the imperfect processing of perceived information by human brains. Therefore, attempts to develop computer models of general adversary behavior must be inadequate for this purpose—the human decision process is neither deterministic nor purely stochastic. Human decisions regarding war and violence are often biased by a variety of factors including brain function, emotion, personal experience, groupthink, and addiction.[14] Decisions of leaders can be affected significantly by the integration of cultural, ideological, religious, and interpersonal issues. This integration occurs in the mind of the decision maker(s). The exact process cannot be replicated by computer or other computational models; however, a multidisciplinary analysis process involving subject matter experts (SMEs) and conducted with the awareness of possible influences and uncertainties can provide highly useful insights.

The recommended general process for developing national deterrent strategies is suggested by past practice and analogous studies. The analysis places emphasis on examining empirical evidence of adversary behavior and decision making as opposed to reliance on theories of what should be important to adversary leaders following from a rational actor model that ultimately is based on our own values.

The recommended framework involves an iterative process of expert elicitation and analysis. The analytic framework and generic process is straightforward; however, each case is unique and the adversary's own particular characteristics and values, as well as the deterrence goal, will dictate the factors for in-depth investigation. Specificity of the deterrence objective is important. For example, the body of this report discusses deterring core al-Qa'ida (as opposed to *all* al-Qa'ida-affiliated organizations) from certain actions—mass casualty attacks with weapons of mass destruction (WMD).

Figure 3 depicts the generic iterative process for developing a deterrence strategy for a specific adversary and deterrence objective.

Republic of Iran (IRI) Decision-making on Nuclear Weapons (August 2006); and *Coercing Syria*, briefing and supporting materials (October 2007).

[14] For a general overview of this issue see Thomas K. Scheber, "Evolutionary Psychology, Cognitive Function and Deterrence," *Comparative Strategy*, Vol. 30, 2011, pp. 353-480.

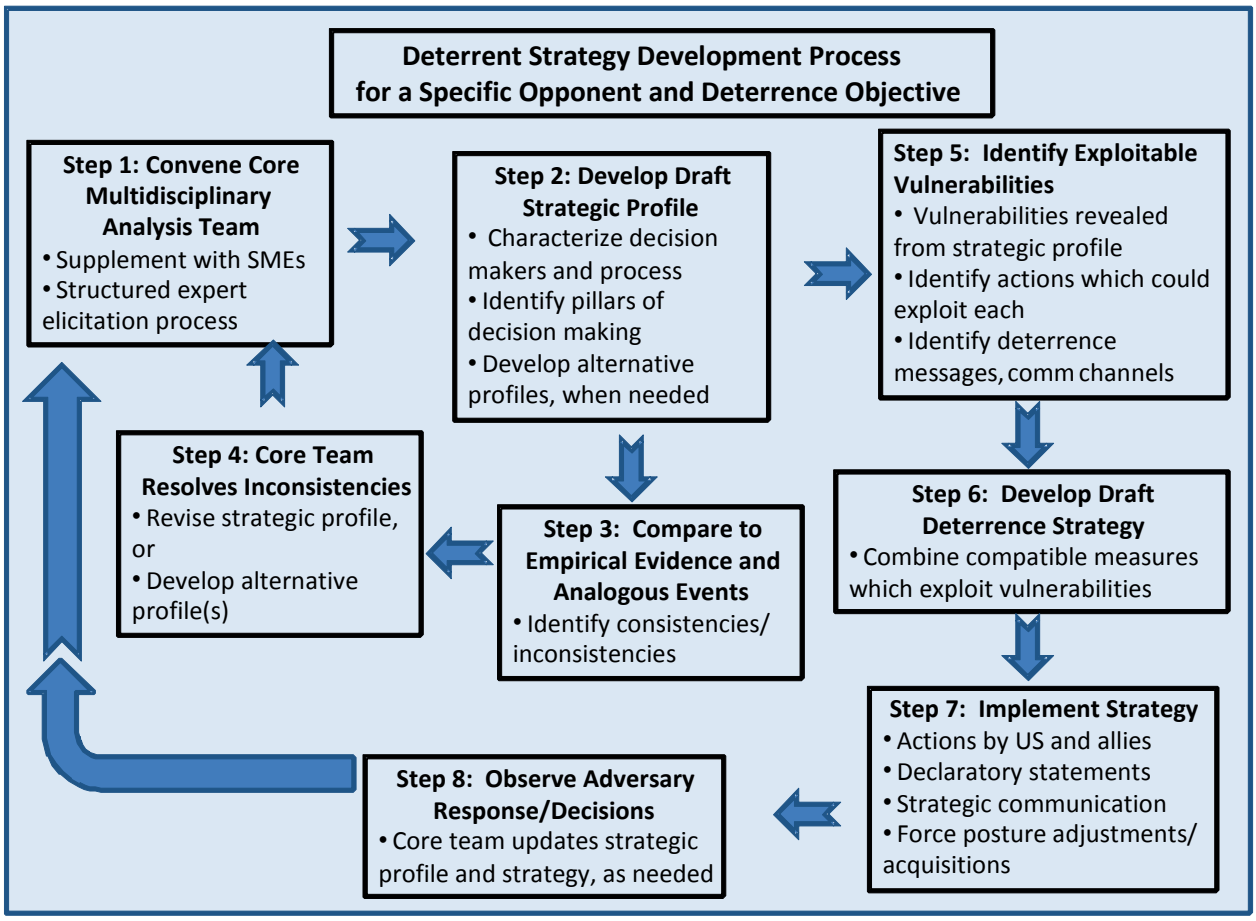

Figure 3. Deterrent Strategy Development Process

Each of the steps in Figure 3 is explained briefly below.

Step 1: Establish a Core Multidisciplinary Analysis Team. The first step is to form a core multidisciplinary analysis team to deal with the specific adversary. Each core team would be commissioned and led by a representative from a federal government institution that understands the requirements of this methodology and can oversee its application to a range of priority threats. Each core team would also enlist the participation of subject matter experts from inside and outside government. When needed, deliberations by the core team could also include foreign nationals. The nature of the adversary and the type of action to be deterred will provide an initial indication of the expertise needed to supplement the core team. For deterring core al-Qa'ida, for example, experts who understand the unique culture, ideology, religion and leadership structure of core al-Qa'ida are, at a minimum, important to understanding adversary behavior.

Step 2. Draft a Strategic Profile of the Adversary. The next step is for the core team, augmented by subject matter experts, to analyze available evidence in order to identify initial decision-making pillars—factors that have been salient in cases involving similar adversaries and those indicated by this particular adversary under study. These pillars are specific manifestations of factors which can significantly influence the decisions of adversary leaders

regarding the deterrence objective. As noted previously, factors which have been demonstrated to affect decision making by leaders of states and non-state organizations include culture, ideology, religion, government (leadership) structure, domestic politics, geopolitical context, psychology of key individuals, and status of weapons of mass destruction. The existence of other relevant factors must also be considered.

The core team, supplemented with appropriate SMEs, would identify the relevant decision-making "pillars" during highly structured sessions. An initial survey of the opponent and deterrence objective should help determine the types of expertise needed and those not expected to be pertinent. It is important during these sessions to obtain from the SMEs the empirical evidence on which is the basis for each opinion offered. Empirical evidence may be obtained by various means, including: classified intelligence intercepts, interrogations of captured enemy operatives, court documents, interviews, and past behavior during periods of stress. From these sessions, the core team will construct a draft "strategic profile." The strategic profile for each deterrence objective seeks to characterize the opponent's likely decision-making proclivities relevant to the specific deterrence context in question.

Draft strategic profiles of the opponent, informed by this multidisciplinary understanding of the most salient and identifiable general and specific factors driving decision making, would be the basis for seeking initial answers to key deterrence questions. As a useful starting point, a generic set of topics for a strategic profile and questions related to each are outlined below.[15]

Strategic Profile

- **Leaders**
- **Leadership Structure**
- **Worldview**
- **Value/Risk Structure**
- **Priorities**
- **Etc.**

- ***Leadership***: Who are the leaders likely to control decision making on the flashpoint in question? What is known about their will and determination on the issue? How might domestic imperatives constrain or free their decision making? What are the likely motivations and constraints on their behavior? To what extent are their pertinent personal psychological characteristics, such as willingness to conciliate or the lack thereof, known? How may the structure of government or cultural norms influence communications, the decisions made, and how, or whether, those decisions are executed?

- ***Value and cost/risk structure***: Where do the stakes in question fit in the value structure of the challenger's leadership? What is likely to be the challenger's cost-risk tolerance with regard to the specific stakes in question? Does the leadership hold core values involving these stakes (e.g., internal or external power relations; cultural, ideological or religious beliefs) that might be decisive in decision making? Do

[15] The factors and related discussion shown here evolved from an initial list presented in Keith B. Payne, *The Fallacies of Cold War Deterrence and a New Direction* (Lexington, Ky.: University Press of Kentucky, 2001), pp. 104-105.

adversary leaders have a "geopolitical reference map" that has been shaped by their history, ideology, or perceived injustices? If so, is there any likely basis for concession on the opponent's part given U.S. deterrence goals?

For example, an understanding of an opponent's geopolitics, as influenced by ideology, culture, religion or domestic politics can inform whether a particular geographic area has particular significance and emotional value to the opponent. This certainly appears to be the case with regard to China's view of Taiwan. Understanding such ties could help U.S. planners to anticipate if the potential crisis over such a territory would be regarded as involving intolerable loss. In such cases, conciliation may not be an option for the opponent regardless of the U.S. threatened action and sanction.

- ***Worldview****:* What is the overarching narrative through which adversary leaders view world events? What role does the adversary play in that narrative? The United States and its allies? What factors (culture, perceived injustices, religion, etc.) combine to motivate that worldview?

- ***Priorities and value trade-off***: What value (e.g., ideological, religious, political, personal) would be paramount in the challenger's decision making and take priority in the likely need to trade off values? For example, how might conciliation or conflict with the United States over the specific issue of contention affect the challenger's other foreign policy or economic development goals? How might goals associated with conciliation or conflict be tempered or motivated by differing factions within the leadership or domestic power structure? When the challenger must trade off one goal for another in its decision making, what effect might that trade-off have on decision making regarding the crisis flashpoint? If, for example, establishing or maintaining economic relations with the United States is an important goal of the challenger, what effect would that goal have on the challenger's decision making with regard to provocation of the United States in pursuit of a foreign policy goal?

- ***Options***: What are the opponent's perceptions of its options in the context? Is conciliation to U.S. demands (to avoid the U.S. deterrent threat) likely to be an acceptable option or intolerable? Is conflict with the United States likely to be a more acceptable option than conciliation and, if so, why and under what conditions? Are all options, including conciliation to U.S. demands, likely to appear intolerable? If so, how does the opponent's value hierarchy suggest that it will address such trade-offs and is it likely that one alternative or another is "less intolerable?" How might changes in the larger geopolitical context or domestic imperatives change the opponent's perspective?

- ***Predictability****:* Does the challenger's past history of decision making on this issue suggest that a relatively understandable and hence potentially predictable decision-making process will dominate? Do the factors apparently shaping this past behavior remain pertinent to the opponent's decision making given the contemporary leadership and stakes at issue? Has Washington previously been surprised by the opponent's apparently "irrational" behavior? Are there ideological, cultural or

religious beliefs that may distort perceptions of reality and thus shape decision making? In cases where a single leader rules supreme, is that leader known to suffer from significant physical or mental health problems, drug addictions, or other factors that could render decision making largely unpredictable?

- ***Familiarity and focus***: Is the opponent's leadership sufficiently familiar with Washington's goals and "style" to comprehend the nature of U.S. demands and threats? Is that leadership paying attention? Is it likely to believe that the United States actually would withhold its threatened sanction if that leadership were to concede to U.S. demands? To what level of detail is the leadership likely to be attentive to U.S. declaratory policy?

- ***Communication***: Are there preferred channels, methods and times for communicating with the opponent's leadership given U.S. deterrence goals and that leadership's possible cultural, ideological and religious backgrounds, kinship ties, the governing structure within which it operates and any specific known psychological factors affecting communications with the United States?

- ***Perception of the United States, U.S. demands and options***: How does the opponent perceive the United States with regard to the stakes in question? Does its perception of the United States facilitate an understanding of and the credibility of U.S. deterrent threats? What is the opponent likely to believe about the potential regrets for Washington if it is not conciliatory and the U.S. executes its deterrent threat? These regrets for Washington could be the result of the opponent's own counterthreats, domestic U.S. considerations, allied reactions, and/or the likely reaction from other potential U.S. foes. What freedom from U.S. threats might the opponent believe it has if it perceives U.S. regrets to be high and thus U.S. options for implementing threats to be low?

Step 3. Examine historical and analogous cases for consistencies or inconsistencies with strategic profile. The draft strategic profile serves as a guide to explain adversary behavior and decision-making propensities. However, the draft strategic profile must be validated to the extent possible, given inherent uncertainties. This process is analogous to that used for computer models. Computer models are validated by demonstrating their ability to approximate known outcomes across a fixed range of input variables. Known input variables and outcomes are documented from past historical events (i.e., experiments). In a similar fashion, it becomes important for the core team to examine historical cases of the opponent's past positions and decision making relevant to the context in question, or in analogous contexts, to determine how well (or not) the draft profile appears to explain the opponent's past actions.

Step 4. Resolve inconsistencies/develop alternative profiles. The core team would evaluate the lessons learned from the opponent's past behavior and decisions. Where the opponent's behavior was inconsistent with that implied by the draft strategic profile, additional subject matter experts who are familiar with the specific historical events of note may need to be interviewed to help understand the contextual issues that proved decisive at that time, help account for the decision, and determine whether those contextual issues

remain pertinent. The draft strategic profile should then be revised appropriately. In some cases, the validity of the draft strategic profile may be called into question and developing one or more alternative, competing profiles may be of value. Where possible, the core team will select the profile that best fits with past, observed behavior and current characteristics of the opponent's decision makers. In some cases, more than one strategic profile may need to be carried forward to account for opponents whose decisions and behavior remain shrouded by the lack of credible and detailed empirical information. Past experience has demonstrated that during the continued analysis and validation of the strategic profiles, one profile will often emerge as dominant. Secondary profiles, however, should be retained and revisited periodically before discarding.

This validation process could also produce spin-off benefits, insights which prove useful for understanding state and non-state actors with similar cultural, ideological, religious, leadership structure, or other characteristics. Over time, a national effort to develop actor- and context-specific deterrent strategies should produce generic components of strategic profiles for opponents with similar characteristics (e.g., non-state Islamic extremists). These generic components, of course, provide only a starting point and require actor-specific refinement. However, when attention is turned quickly to a potentially hostile actor which has previously remained "off the radar," even a rudimentary strategic profile could provide a useful starting point for U.S. planners to assess whether or not deterrence over the issue at stake appears feasible and, if so, the types of vulnerabilities and levers to consider. Exploiting vulnerabilities is discussed in the next step.

Step 5. Exploit the strategic profile. The refined strategic profile serves as the basis for assessing the prospective functioning of U.S. approaches to deterrence vis-à-vis the specific opponent and deterrence context. The next step involves two related parts and begins by identifying ways to exploit the strategic profile consistent with the understanding of opponent decision making and past behavior derived from the prior steps. Insights from past behavior as reflected in the strategic profile will inform judgments on key concerns of adversary decision makers which have influenced decisions in the past. For example, the strategic profile of core al-Qa'ida in the main text of this report revealed that decisions by senior al-Qa'ida leaders had been influenced by several factors, including: alienation of the *ummah*, loss of support from specific groups, demoralization from within the organization, operational failure of a high priority operation, death or long-term imprisonment, and retaliatory threats. These adversary concerns/vulnerabilities provide the focus for considering U.S. actions which can provide building blocks for a deterrent strategy.

The second part of exploiting the strategic profile is to identify U.S. actions which could play upon key concerns of adversary leaders. Multiple types of action by the United States may be focused on each. For example, the al-Qa'ida concern that each high priority operation requires a very high (near certain) probability of success could be exploited through various measures. The objective in this case study is to deter the use of WMD for mass-casualty attacks. Therefore, a well-advertised portfolio of detection and defensive measures aimed specifically at chemical, biological, and radiological/nuclear weapons entering the United States from abroad would contribute toward this deterrence goal. For this "lever" to provide deterrent effect, al-Qa'ida leaders

would have to perceive U.S. actions in a way that encourages the belief that a WMD attack in the United States would not have the requisite high probability of success or payoff. For each identified adversary vulnerability, the core team should construct the set of feasible U.S. actions which could exploit that vulnerability and thereby influence decision making.

The set of adversary vulnerabilities and U.S. actions which could exploit each vulnerability will help identify options for deterrent strategies for the opponent and deterrence context. This is the task described in the next step.

Step 6. Develop an initial deterrent strategy. An initial deterrent strategy combines various measures which are mutually compatible to exploit the adversary's vulnerabilities. The previous step will inform planners of the range of actions by the United States and its allies which could provide "deterrence levers." The potential gap between that which is practicable for the United States in this regard and that which appears optimal for deterrence will help scale the confidence and priority that may be placed on strategies of deterrence. It also could help U.S. planners identify the gaps in capabilities, intelligence, and planning that would need to be corrected if strategies of deterrence must be the priority.

An important component of effective deterrent strategy deals with communications with adversary leaders. The refined strategic profile will inform the core team as it develops key declaratory statements that could be directed at adversary leaders and as it considers the best modes of communications. To whom should communications be directed? What does the adversary's culture tell us about how our intended message should be constructed and would be perceived? Should the messages be delivered in private, in public, or embedded in material that would be "discovered" by adversary surveillance and intelligence gathering?

For candidate U.S. actions, planners can examine the fit (or lack thereof) between the actions (e.g., specified sanctions, force options and displays, timing, target audiences, mode and content of communications) suggested by the profile and the deterrent strategy options that are realistically available. To help identify optimal U.S. deterrent options for the case, political-military exercises/simulations could be conducted with a Red Team behaving according to the opponent's refined strategic profile.

As part of the initial strategy development, the core team will need to inform senior officials who must prioritize U.S. force structure options, acquisition choices, and declaratory policy per the requirements for deterrence identified across multiple priority threats. The core team located within a federal government institution would take responsibility for organizing and undertaking the distribution and communication of the results of these efforts to appropriate civilian and military offices throughout the federal government.

Step 7. Implement strategy and take appropriate actions. This step involves implementing in a coordinated manner the force structure and posture adjustments, acquisition initiatives, declaratory policy, and strategic communication elements of the

strategy. Put into practice, the strategy developed from this methodological framework should facilitate U.S. deterrence policies that are less vulnerable to surprise because the strategy would be better informed concerning the opponent's likely cost-benefit calculus and methods to influence its behavior.

As deterrence profiles are completed on a variety of potential opponents and contexts, and numerous prospective U.S. deterrent strategies are examined against those profiles, it may be possible to point to those U.S. capabilities and strategies most valuable for deterrence purposes across multiple cases. It may also be possible to identify those capabilities most suited for deterrence in selected cases that are judged to be most critical because of their likelihood or threat level.

Initial implementation of the deterrent strategy is not the final step. Just as warfare is dynamic and replete with surprises, a deterrence relationship is not static. The final step is needed to adapt each strategy to changing conditions, including adjustments initiated by the opponent in response to its perceptions of vulnerability.

Step 8. Observe adversary response and adjust strategy. Close observation of the adversary's behavior, actions, and words in response to the implemented deterrent strategy and related actions should provide important indicators of the effect of the actions. For example, it will be important to discern whether the deterrent message was received and understood by the adversary as intended. Also, actions by the adversary and intelligence intercepts of internal communications may provide clues as to the sensitivity of adversary leaders to U.S. actions. Which actions proved most effective and why? Which actions turned out to be of little effect and why? What steps is the opponent taking to lessen its vulnerabilities? The answers to these and other questions should guide the core team to suggest adjustments to the deterrent strategy for enhanced deterrent effects.

Sometimes the precise issue or issues to which an adversary is most sensitive may come as a surprise. For example, in its efforts to discourage North Korea from continuing its nuclear weapon development and test programs, the administration of George W. Bush imposed a variety of economic sanctions, including restrictions on trade and travel, bans on economic transactions with North Korean companies, and barring U.S. individuals and companies from owning or operating ships flying North Korean flags. While most of these measures most likely inflicted some economic discomfort on North Korean leaders, one action appeared to have a surprisingly strong effect. In September 2005, the U.S. Treasury Department froze assets in an obscure, family-owned bank—Banco Asia Delta—in the Chinese enclave of Macao. Following that action, at almost every meeting between U.S. negotiators and their North Korean counterparts, Pyongyang demanded that the United States lift its sanctions against the bank, even enlisting the help of Moscow to plead its case. It turned out that this bank handled trade and financial transactions, including the sales of gold bullion, for a range of North Korean government companies and entities. The vulnerability of North Korean leaders to the loss of precious hard currency through this financial institution proved to be a significant concern and an area of potential leverage.[16]

[16] David Lague and Donald Greenlees, "Squeeze on Banco Delta Asia Hit North Korea Where It Hurt," *New York Times*, January 18, 2007, available at http://www.nytimes.com/2007/01/18/world/asia/18iht-north.4255039.html?pagewanted=all.

This concludes the step-by-step description of the proposed methodology. Additional descriptions of this methodology as it has evolved over the years can be found in several openly available publications.[17]

Final observations on the methodology and process. This process described above has, at times, produced insights that had previously remained hidden from other methods of analysis. For example, the NIPP analysis of 10 historic case studies between states and non-state actors (NSAs) demonstrated that several enduring Western assumptions about deterrence and NSAs (including terrorists) were not accurate. Non-state actors have been deterred by state opponents. Deterrence was usually a concomitant effect of a state's measures to defeat the NSA while protecting its citizens. Surprisingly, in many of the case studies examined, effective defense/denial measures provided particularly important contributions to the deterrence of a non-state opponent.

A degree of uncertainty will always accompany any deterrent strategy. Some significant information is likely to remain inaccessible; human decision making is not deterministic. However, the process described here should inform the development of deterrence strategies with fewer uncertainties than those which rely on using a rational actor model with assumed adversary values akin to those of a liberal, democratic society.

Practical Advice for Implementing a New Methodology

National Institute for Public Policy has followed the general outline described above in its analysis of strategies for deterring states and non-state actors, including al-Qa'ida. We have found continuities in these procedures which produced meaningful results from numerous and diverse studies. As noted earlier, no strict formulaic approach to deterrence exists. Each case must be evaluated on itsown unique characteristics, values, and deterrence objectives. However, whether a state or non-state actor is the target to be deterred, the same general analytic process is applicable. Empirical evidence of adversary behavior and decision making can provide valuable insights into an adversary's values and factors which influence its decisions.

However, even using this approach, uncertainties will remain and the probability of deterrence success or failure cannot be quantified with precision. The NSA study, for example, provided numerous examples of cases that demonstrate the fragility of deterrence and the breakdown of seemingly sufficient deterrent measures due to changes in contextual factors. As one experienced quantitative analyst has opined with regard to projections of human behavior:

> Unquantifiable uncertainty is, for example, the likelihood of a revolution in China or the detonation by terrorists of a nuclear bomb in midtown Manhattan. These events are unlikely, but there is no reliable method for estimating their odds... The best you can do with unquantifiable uncertainty is to be aware of it and aware of your inability to quantify it, and then act accordingly.[18]

[17] See, for example, Payne, *The Fallacies of Cold War Deterrence and a New Direction*, op. cit., and Payne, "Understanding Deterrence," *Comparative Strategy*, Vol. 30, No. 5 (November-December 2011), pp. 393-427.

[18] Derman, *Models Behaving Badly,* op.cit. p. 154.

This appendix concludes with a short discussion of insights on the deterrent strategy development process developed from this study of deterring core al-Qa'ida from conducting mass-casualty attacks with WMD in the United States, along with some suggestions for implementing the process. A first step in implementing the strategy development process is suggested and is followed by a discussion of the relative strengths and limitations of government institutions and non-government institutions as participants in a more thorough implementation of the proposed process. A collaboration of government and non-government entities is recommended to benefit from the unique strengths inherent in each.

Insights on the Methodological Process From the Study of al-Qa'ida

The process used by National Institute to examine core al-Qa'ida and deterrence was similar to steps one through five described above. A core deterrence study team was comprised of individuals knowledgeable about the functioning of deterrence and the methodology and process practiced by National Institute. Also included in the core team specifically for the al-Qa'ida study were SMEs well versed in the culture, ideology, and religious beliefs expressed by al-Qa'ida leaders. Using a structured expert elicitation process, this core team, augmented by other SMEs, developed a draft strategic profile of al-Qa'ida.

During the collection of information needed for a strategic profile, it was surprising that many individuals who are considered al-Qa'ida experts were unaware of or discarded readily available empirical evidence that provided insight into al-Qa'ida past behavior and motivations. This evidence can provide useful insights but was often overlooked by researchers who focus primarily on al-Qa'ida statements and fatwas of religious clerics who sanction al-Qa'ida's tactics. For example:

Human behavior and martyrdom. Al-Qa'ida ideology embraces the role of martyrdom and observers in the West see the manifestation of that ideology in the work of suicide bombers. It is understandable that many observers of al-Qa'ida expect their leaders to not fear death, but to look forward to the expected rewards of martyrdom. However, empirical evidence reveals that senior al-Qa'ida leaders have exerted great effort to survive when under attack. As noted in the body of the report, some analysts have speculated that this may not be a fear of death but a dedication of senior leaders to survive and continue the cause. In addition, the basic human instinct for survival is strong and one first-person account of bin Laden's behavior when under attack at Tora Bora is revealing. When he seemed cornered in Tora Bora in December 2001, bin Laden apparently contemplated martyrdom, writing in his last will and testament, "Allah bears witness that the love of jihad and death in the cause of Allah has dominated my life and the verses of the sword permeated every cell in my heart."[19] Yet when he had the chance, he escaped. A Yemeni doctor who was caring for al-Qa'ida wounded at Tora Bora later complained that bin Laden "seemed mainly preoccupied with his own escape" and "to be frank he didn't care about anyone but himself."[20]

---

[19] From "*Al –Majallah* Obtains Bin Laden's Will," *Al-Majallah*, October 27, 2002, quoted in Senate Foreign Relations Committee, *Tora Bora Revisited: How We Failed to Get Bin Laden and Why It Matters Today*, S. Prt. 11-35, 111th Cong., 1st sess. (Washington, D.C.: GPO, 2009), pp. 2, 31.

[20] Peter L. Bergen, *The Longest War: The Enduring Conflict Between America and Al-Qaeda* (New York: Free 2011), p. 75.

Role of Geography in bin Laden's worldview. Geopolitics can play an important role in shaping the worldview of an adversary leader and may be inextricably interwoven with other factors. In the case of Osama bin Laden, geopolitics appears to be linked closely with culture and religion. The study team's initial investigation into al-Qa'ida's ideology provided a useful perspective on the influence of geography on that ideology. A look into bin Laden's background revealed additional details—his deeply personal attachment to some geographic areas.

Al-Qa'ida's ideology calls for establishing a new Islamic caliphate under sharia law. Al-Qa'ida's leaders appear to have a cognitive map in their heads of the geographic areas which would fall within the caliphate. As noted in the strategic profile discussion of ideology and policy, these areas include the geography which comprised the caliphate centuries past and includes reclaiming "lost lands" such as the Andalusia Province in southern Spain.

For some al-Qa'ida leaders such as bin Laden, a personal cognitive map appears to place special importance on some areas. Bin Laden was raised in a patriarchal society in Saudi Arabia. Young Osama was described as idolizing his father. Bin Laden's father grew wealthy as the head of a construction company. His construction company was responsible for the expansion of the Muslim holy sites at Mecca and Medina in Saudi Arabia as well as restoration of Jerusalem's Al-Aqsa Mosque during the 1960s. Acquaintances of bin Laden report that he relished telling others that his father had a routine once or twice a month in which he would pray at all three of Islam's holiest sites in a single day. The senior bin Laden owned a plane which allowed him to "offer his morning prayers in Medina, afternoon prayers in Mecca, and then the evening prayers in Jerusalem ..."[21] Peter Bergen reports that after the 1967 Arab-Israeli war when access to the Al-Aqsa Mosque was controlled by Israel, bin Laden said "that he felt the loss of Jerusalem 'like a fire burning in my intestines.'"[22] When bin Laden held his first and only press conference (May 1998) to announce the formation of his "World Islamic Front," he stated that it was formed "to do jihad against the Crusaders and Jews" (i.e., those that occupy parts of the holy lands).[23] The geopolitics of the Middle East, as it was viewed through the filter of Arab culture and Islamic teachings and his own uniquely personal experiences, left an indelible mark on the mind of bin Laden.

Risk tolerance. Many commentators have characterized core al-Qa'ida leaders as extremely risk tolerant and willing to take extreme risks for high payoff operations. As the study team investigated this issue, it found that a significant amount of evidence existed which provided valuable insight into how past decisions were made and called that generalization into question. However, this evidence was often overlooked by individuals considered experts on terrorism and al-Qa'ida. The evidence painted a picture of al-Qa'ida decision makers as fanatical, but methodical, patient, and often risk adverse. The term "conservative fanatic" became the short-hand label for this type of behavior within the core team.

[21] Ibid., p. 32.

[22] Loc. cit.

[23] Bergen, *The Longest War*, p. 33.

The lessons from the study of al-Qa'ida and deterrence underscore the importance of documented case studies and empirical evidence of adversary behavior. Each piece of evidence helps provide a more detailed picture to help understand an adversary's perspective and factors which have been demonstrated to have influenced decisions.

Enhancing the Current Deterrence Strategy Development Process

The current DoD Deterrence Operations Joint Operating Concept 2.0 (DO JOC) [24] stresses the need to move beyond the rational actor model while leaving the details of how that is to be done to those responsible for developing deterrent strategies. In several places, the DO JOC provides direction to move beyond the rational actor model and understand the adversary's unique perspectives. For example, one of the working assumptions listed in the document is the following: "Decisions to act are based on actors' calculations regarding alternative courses of action [COAs] and actors' perceptions of the values and probabilities of alternative outcomes associated with those courses of action."[25]

In addition, the document warns, "uncertainties regarding the nature and content of adversary values, perceptions, and decision-making processes could prevent development of a sufficiently accurate and detailed understanding of adversary decision calculations to support effective deterrence strategy... development."[26] Exactly. As noted earlier, despite the widespread acknowledgement of the wisdom of tailoring deterrence strategies to each adversary, in 2007 the DSB highlighted the continuing widespread presumption among Defense Department officials that deterrent strategies consistent with that conceived during the Cold War will preclude WMD attacks on the United States and its allies.[27]

As a first step, a multidisciplinary examination of each specific adversary and deterrence objective could build nicely upon the process called for in the 2006 DO JOC and would address the concern of the DSB. Figure 4 depicts the five-step process described by the DO JOC and illustrates the steps in that process for which a more detailed examination of deterrence-related factors unique to the adversary and deterrence goal would enhance the existing approach.

[24] Department of Defense, *Deterrence Operations Joint Operating* Concept, Version 2.0 (Washington, D.C.: Department of Defense, December 2006).

[25] Ibid., p. 11.

[26] Loc. cit.

[27] Defense Science Board 2007 Summer Study, *Challenges to Military Operations in Support of National Interests*, *Vol. I,* op.cit., p. 7.

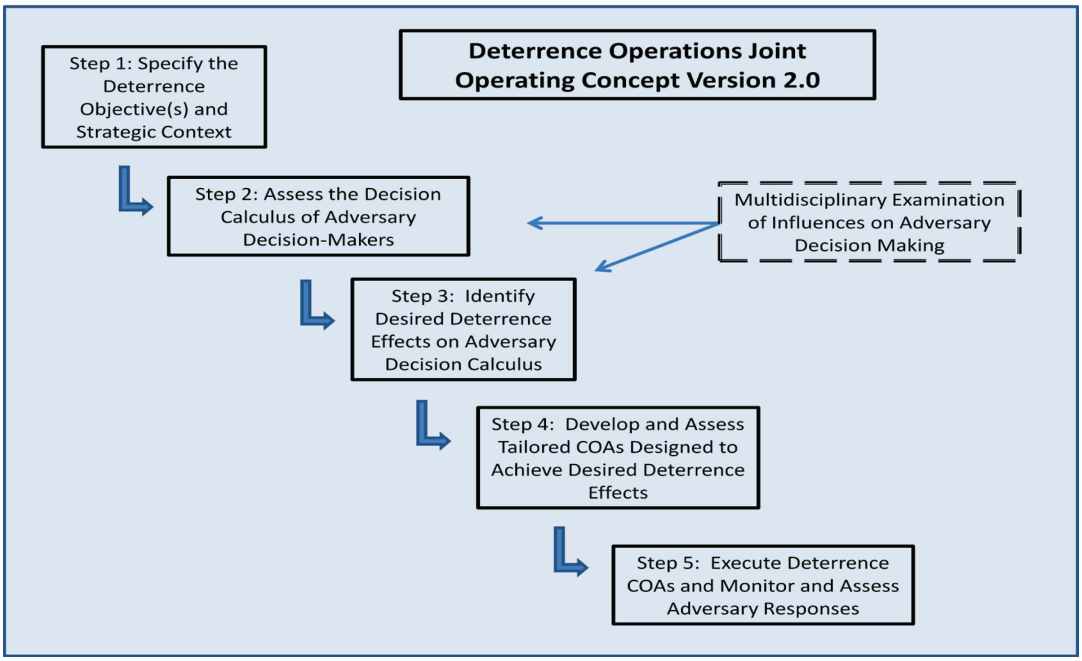

Figure 4. Steps of the Deterrence Operations Joint Operating Concept 2.0 and Relationship to Proposed Multidisciplinary Examination of Deterrence-Related Factors

Insights gained from the multidisciplinary analysis of adversary decision making will likely provide a useful understanding of those factors which decisively influenced adversary leaders in the past as well as inferences of future behavior. These insights should be particularly useful for steps 2 and 3 of the DO JOC, assessing the adversary's decision calculus and identifying possible measures to influence that calculus.

Moving Beyond the Current Process

A more complete implementation of the recommended analytic and strategy development process will likely require a collaboration between government and non-government institutions. Neither government nor non-government approaches alone are likely to develop deterrent strategies that are both well informed and implementable. Both offer strengths and limitations; this suggests a collaborative venture.

Government institutions

Strengths. Government institutions are well structured and staffed for "in-the-box" thinking. Career government professionals understand what has and has not worked in the recent past. Officials who have responsibility for aspects of deterrent strategy understand best what government can reasonably be expected to implement and what is unlikely to be accomplished. They have likely experienced frustration at the glacial pace of interagency coordination required for national issues, especially when compared to the rapid flow of information and change in contextual factors in important regions. Also, offices in government will have access to closely held classified information which may not be made available to non-government, strategy-development partners and foreign nationals.

An office in government or closely aligned with government will be needed to understand the methodology, institutionalize and refine it, and determine priority deterrence objectives consistent with the existing national security strategy. This office will also need to serve as the institutional champion for the proposed deterrent strategy within the interagency process. Once the draft strategy is approved for implementation, one or more offices in government must take responsibility for the detailed work required for effective implementation and revision whenever needed.

Limitations. With the possible exception of a few special-purpose cells within the intelligence community, government offices do not have the breadth of expertise required for an in-depth multidisciplinary analysis of each adversary's decision dynamics and value system. A wealth of highly specialized expertise resides outside of government. Attempting to replicate this expertise fully within government would be extremely expensive and unlikely to provide insights as rich and diverse as would be readily available from outside of government. There are several reasons why this is so. Government offices can become bureaucratic and resistant to change and are vulnerable to having constraints imposed on their work by each administration's political appointees and senior managers. The pool of experienced talent within the government faces turbulence caused by personnel turnover, mandated downsizing, and early retirement incentives driven by fiscal pressures and changing political priorities. Government personnel regulations obstruct the best-intentioned attempts to promptly change staff functions and personnel to respond to rapidly changing events.

Non-government institutions

Strengths. Non-government institutions and sources are better at thinking "outside-the-government" box. A resource-rich environment exists outside of government which could contribute more effectively to the understanding of perceptions and communications in other cultures, ideologies, and religions. The pool of resources available outside of government includes academic institutions in the United States and abroad, non-government organizations and think tanks, businesses with routine interactions with other cultures, social organizations which may have extensive contacts within the country or region of interest, and many others. Not only is the breadth and depth of information sources richer outside of government, but some organizations and individuals with potentially valuable information will refuse, for various reasons, to provide information for an official government study, but will participate willingly with organizations outside of government.

Limitations. By their nature, non-government institutions are less informed on how government bureaucracy operates on a day-to-day basis, the rigors of interagency coordination, and the need for consensus building among government agencies. Some out-of-the-box thinking may be brilliant, but impossible to implement for practical or political reasons. Non-government institutions may not have an accurate picture of the acquisition procedures, logistics requirements, and time needed to put a new capability in place or coordinate a U.S. action within the government and with concerned allies. A government partner will serve a useful role in polishing the rough edges from measures in a draft deterrent strategy before it is proposed for interagency review.

Participants

To provide the multidisciplinary analysis and validation needed, individuals from a broad collection of backgrounds should be sought. Experts with narrow but in-depth knowledge of topics related to the adversary of interest should be supplemented by individuals with a broad understanding of such areas as human psychology and behavior, cultural anthropology, religion, and geopolitics. Views from experts who provide insight from a narrow focus of investigation as well as those who bring a broad perspective on aspects of war and violence would likely be of value.

The responsible government office should participate to understand if the deterrence objectives have been defined in a manner that properly focuses the analysis and to identify the deterrence objectives of sufficient priority to warrant this type of study. At times, foreign nationals with unique inside perspectives of potential use to the core team may need to be included and government officials excluded if such would facilitate invited guests to speak more openly. A strong discussion leader will be needed to keep such a diverse study group task-focused on the pertinent issues and to ask periodically for the empirical evidence which supports or conflicts with proposed explanations for an adversary's past or likely future decisions.

Summary of Discussion of Methodology

This discussion of a recommended methodology for developing well-informed deterrent strategies has briefly outlined the problem–the rational actor model often used by default provides comfortable but misleading solutions for deterrence strategy development. This is because the values held by the decision maker or analyst with his or her own cultural and other biases are unlikely to match those of an adversary from a different background. The rational actor model has been long recognized as inadequate, yet implementing a comprehensive, more effective alternative approach to strategy development is a challenge. The proposed solution is to build upon the current structure in place and develop the process toward a multidisciplinary activity which is conducted in full knowledge that numerous factors (some knowable, others not) can decisively influence an opponent's decisions regarding a particular issue.

A step-by-step approach to the recommended methodology was outlined above. Past experience has demonstrated the high value of empirical evidence of contextual circumstances in which past decisions were made and factors which have influenced an opponent's decisions. An iterative process will be required to develop a draft strategic profile of adversary decision making and to revise that profile—or develop alternative profiles—to resolve inconsistencies with observed behavior. Once an initial deterrent strategy is formulated and implemented, it will be imperative to observe the response of the adversary and actions which might be intended to reduce its vulnerability to that strategy. As appropriate, additional iterations may be required to update the strategic profile and strategy.

Finally, collaboration between government and non-government entities will likely be needed to implement this methodology. Neither is fully capable and each brings strengths and limitations to the effort. Both will have access to resources necessary to provide the type of empirical evidence of significant value for this undertaking.

About the Authors

Keith Payne is President and Co-Founder of the National Institute for Public Policy, a nonprofit research center located in Fairfax, Virginia. Dr. Payne also is Head of the Graduate Department of Defense and Strategic Studies, Missouri State University (Washington Campus), and was awarded the Vicennial Medal for his years of teaching at Georgetown University. Dr. Payne served in the Department of Defense as the Deputy Assistant Secretary of Defense for Forces Policy. He received the Distinguished Public Service Medal and the Forces Policy office Dr. Payne led received a Joint Meritorious Unit Award. He served on the Bipartisan Congressional Commission on the Strategic Posture of the United States. In addition, he is the editor-in-chief of *Comparative Strategy: An International Journal*, Chairman of the Strategic Command's Senior Advisory Group Strategy and Policy Panel, and co-chair of the U.S. Nuclear Strategy Forum. He also has served as a consultant to the White House Office of Science and Technology Policy, and the Arms Control and Disarmament Agency, and as a member of the State Department's International Security Advisory Board. Dr. Payne is the author of many books and articles on the subjects of deterrence theory and policy. His most recent book is, *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century* (2008).

Thomas Scheber is Vice President, National Institute for Public Policy. At National Institute, he specializes in concepts for implementing deterrence strategies, extended deterrence and assurance of allies, and analyses of strategic force issues. In 2008 and 2009, Mr. Scheber served as a member and chairman of the Deterrent Force Posture Expert Working Group for the Congressional Commission on the Strategic Force Posture of the United States. Before joining National Institute in October 2006, he was the Director of Strike Policy and Integration in the Office of the Secretary of Defense. He played a central role in the conduct of the 2001 DoD Nuclear Posture Review (NPR). While in OSD, Mr. Scheber was a member of the U.S. delegation to the U.S.-Russia Consultative Group on Strategic Security (Offensive Transparency Subgroup). From 1989 to 2000, Mr. Scheber was a member of the professional staff at the Los Alamos National Laboratory and served as the Director of the Military Applications Group and Project Leader for Weapon Studies.

Kurt Guthe is the Director of Strategic Studies at the National Institute for Public Policy. He was a senior analyst at NIPP from 1985-2000. Before rejoining NIPP in 2005, he was a senior analyst at the Center for Strategic and Budgetary Assessments. During leave from CSBA, he contributed to the 2001 Nuclear Posture Review and served in the Office of the Deputy Assistant Secretary of Defense for Forces Policy. In 1992, during a one-year leave of absence from National Institute, Mr. Guthe served on the staff of the Gulf War Air Power Survey. From 1981-1984, Mr. Guthe was on the senior professional staff of the Hudson Institute. From 1978-1981, he was a member of the research staff of the System Planning Corporation.

Cynthia Storer is a Lecturer in the Intelligence and National Security program at Coastal Carolina University in Conway, South Carolina. She is also a senior analyst at Pherson Associates, LLC, based in Reston, Virginia, where she has provided training, education, analysis, and facilitation to US Government intelligence agencies. Previously, she served 20 years as an analyst at the Central Intelligence Agency, mostly on terrorism related issues. For one year, she was a Fellow at the Center for the Study of Terrorism and Responses to Terrorism (START) and the University of Maryland (UMD). She has an MA in International Relations from Catholic University (1991) and a BA with Honors in Government from the College of William and Mary (1986).