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ASSESSING STRATEGIC EFFECTIVENESS IN THE WAR ON TERRORISM

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ABSTRACT

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      The United States strategy for the war on terrorism encompasses four goals: defeating terrorist organizations, denying further sponsorship support, diminishing the underlying conditions that terrorists seek to exploit, and defending U.S. interests against terrorist attack. Unlike past wars fought against conventional threats, operationalizing the strategy requires more thoughtful integration of all components of national power—diplomatic, economic, and military. Also unlike wars past, we do not expect victory to occur in a single defining moment. Therefore, measuring how well we are achieving our strategic objectives involves challenges unique to the asymmetric, long-term nature of the endeavor, and requires knowledge of the existence of threat and a fundamental understanding of how the adversary interacts within the global environment. The purpose of this research is to propose a conceptual framework— based upon concepts inherent to systems theory—for developing strategic measures of effectiveness. The goal is to develop insights into how to establish and maintain a comprehensive perspective, thus avoiding the tendency towards strictly quantifiable and often irrelevant metrics—i.e., "the body count approach"—in order to provide for a more complete and thorough assessment of the nation's strategy implementation.

ASSESSING STRATEGIC EFFECTIVENESS IN THE WAR ON TERRORISM

The war against terrorism has been characterized as a "war between the civilized world and those that would destroy it."[1] However, unlike traditional conflicts between nation states in well-defined theaters of operation, it is difficult to envision a defining moment—or event—in which victory will be achieved. We can expect our adversary to continue to perpetuate his ideology in the back alleys of the world, while seeking opportunities to prosper in the openness and freedoms that define us. And although the war will often be characterized by violent, short, and isolated engagements, its effects will remain global and enduring. Our nation's commitment to winning will be the duty of generations.

President Bush's Administration cites the killing or capturing of more than two-thirds of al Qaeda's top leadership, the seizure of more than $200M in terrorists' funds, the removal of terrorist-harboring regimes in Afghanistan and Iraq, the elimination of "a major weapons of mass destruction [WMD] black market network originating in Pakistan," world-wide movement forward in the "'march' of democracy," and "Libya's rejoining a community of nations" as clear examples of the nation's progress since beginning the war.[2] Other successes include vast improvements in U.S. intelligence and homeland security capabilities, robust international support in operations against al Qaeda, and popular support for the government's counterterrorism efforts among Americans.[3]

However, despite our successes, al Qaeda's "broader support" and the "long-term health of its cause" appear to remain strong.   The organization is in "no danger of collapse." Osama bin Laden and his deputy Ayman al-Zawahiri, remain alive and involved to some degree. Fundraising continues and the organization appears to have no trouble recruiting skilled and motivated members or securing other forms of support. The group remains dangerous and extremely active, having helped to inspire, plan, or execute attacks in Tunisia, Chechnya, Pakistan, Indonesia, Jordan, Kenya, Saudi Arabia, Yemen, and Morocco during the past two years. In addition, al Qaeda continues to influence operations in Iraq and adversely effect Western relations with the Palestinians. Al Qaeda's ideology remains "potent"—and appears to have grown in "appeal" since the war started. Most importantly, al Qaeda continues to enjoy success in perpetuating its world view that the United States is the greatest threat to the Muslim world.[4]

The Chairman of the Joint Staff's number one priority is *winning the war on terrorism*. In line with this, he believes it is essential to determine if "the level of effort is reflected in the level of return" by asking, "How do we measure our progress?"[5] The ostensibly contradictive

perspectives on how the war is going, suggest this to be a fundamental challenge.   In essence, we don't know how to best determine if our strategic objectives are being met.

The purpose of this research is to propose a conceptual framework to be used in the development of strategic measures of effectiveness (MOEs) for assessing the Nation's strategy implementation in regard to the war on terrorism. This paper will consider the strategic objectives that have been published within the National Strategy for Combating Terrorism with a goal of exposing the depth of the strategy and increasing awareness of the precise objectives associated with each of the strategy's four goals. Suggestions regarding the benefits of using systems analysis to determine the basis of a framework will be examined, and the prospect of leveraging concepts inherent to Effects-Based Approach (EBA) and Open Systems Theory (OST) for determining strategic and operational effects will be investigated. A discussion of the factors influencing al Qaeda's organizational design will be included within this section. A subsequent view of the challenges inherent to MOE development will lead to a proposal of a new framework that might be useful in the establishment of strategic MOEs for use in the war on terrorism.

Strategic Objectives for the War on Terrorism

> The intent of our national strategy is to stop terrorist attacks against the United States, its citizens, its interests, and our friends and allies around the world and ultimately, to create an international environment inhospitable to terrorists and all those who support them.[6]

The National Strategy for Combating Terrorism provides the foundation to our conceptual framework by establishing the strategic objectives the nation must achieve to win the war on terrorism. These objectives fall under four primary goals upon which the national strategy is based. The four goals are:

1. *Defeating* terrorists and eliminating their organizations
2. *Denying* state or non-state sponsorship and support
3. *Diminishing* the underlying social conditions that terrorists seek to exploit
4. *Defending* U.S. interests against terrorist attack.[7]

Defeating terrorists requires us to "attack terrorist sanctuaries; leadership; command, control, and communications; material support; and finances."[8] Specific objectives of this goal include identifying, locating and destroying respective terrorist capabilities and organizations.[9]

Denying sponsorship and support means "… ensuring other states accept their responsibilities to take action against these international threats within their sovereign territory."[10] Specific objectives include: "denying sponsorship, support, and sanctuary to

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terrorism"; establishing and maintaining an "international standard of accountability with regard to combating terrorism"; strengthening and sustaining the "international effort to fight terrorism"; interdicting and disrupting "material support for terrorism"; and eliminating "terrorist sanctuaries and havens."[11]

Diminishing conditions that foster terrorism requires enlisting the international community to "focus its efforts and resources on the areas most at risk."[12] Its objectives include: partnering "with the international community to strengthen weak states, . . . preventing the (re)emergence of terrorism" and winning the "war of ideas."[13]

Defending U.S. interests looks to ensure the defense of "the United States, our citizens, and our interests at home and abroad by both proactively protecting our homeland and extending our defenses to ensure we identify and neutralize the threat as early as possible."[14] Objectives of this goal include: implementing the National Strategy for Homeland Security; attaining "domain awareness"; enhancing "measures to ensure the integrity, reliability, and availability of critical physical and information-based infrastructures at home and abroad"; integrating "measures to protect U.S. citizens abroad"; and ensuring an "integrated incident management capability."[15]

Success in the war on terrorism requires a strategy that "engenders measurable victories."[16] Accordingly, the process we use to assess our effectiveness in executing the war on terrorism is "inextricably linked to strategies."[17] Articulating the strategy in discrete, unambiguous terms is crucial to our success. A precise understanding of each strategic objective leads to the realization of clear and identifiable strategic and operational effects that, in turn, provide the basis for determining relevant measures of effectiveness necessary to assessing the nation's strategy implementation.

Systems Theory: Adapting EBA to the Concepts of Open Systems Design

A *system* is "a functionally, physically, or behaviorally related group of interacting or interdependent elements...forming a unified whole."[18] Achieving a *systems perspective* provides for better operational awareness and greater understanding of the effects necessary to realizing desired ends.[19] *Systems analysis* suggests that problems, and their corresponding solutions, are integrally—and often complexly—related. Solutions may be as much about negotiating through the intricacies of a problem as they are about solving it.[20] The discipline aids decision makers by proposing that policies and strategies are "as much a matter of choosing structures and relationships, as choosing instruments."[21] Systems-based assessments, therefore, increase our understanding of the risks inherent to achieving operational and strategic

goals by providing a more comprehensive view of the battlespace, and how it influences threat behaviors and capabilities.

Effects Based Approach (EBA)

EBA provides the means for determining required operational and strategic effects. The fundamental aim of EBA is to change or influence the behavior or capability of an adversary in ways more agreeable to friendly objectives.[22] The approach is founded on "General Systems Theory,"[23] which essentially proposes a "view of the world as a set of systems composed of tangible elements (nodes) and their relationships (links) to each other." Nodes represent discrete entities such as "people, materiel, facilities, and information." Links correspond to the "physical," "functional," or "behavioral" relationships which exist between them.[24]

Although, the precise application of EBA in this research supplants nodes and links with models based upon Open Systems Theory, the underlying concepts are still relevant. Effects-Based Approaches—by virtue of a systems perspective—expand the view of the operational environment by including all factors relevant to it.[25] In line with this view, effects-based operations consider "all instruments of natural power," and are therefore, essentially unconstrained in "ways and means."[26] Staffs concentrate on how the various systems operate as part of the environment in order to determine options—both kinetic and non kinetic—for producing desired effects.[27]

The Effects-Based Approach "focuses more on functions than forces" and desired effects can take various forms. In combat it may mean disabling an enemy system so that it can no longer function effectively. In disaster relief, it might mean restoring an affected social system so that it is capable of sustaining itself. In deterrence, it might mean convincing an adversary that the course of action he is pursuing is not worth the cost.[28]

Opponents of EBA argue that mission orders—with their specified tasks and associated intents—accomplish the same goal as EBA, but in a "far less restrictive way."[29] The backward planning process integral to the development of mission orders supports cause and effects determination, and facilitates the military's awareness of "what it desires at the end of the day, or week, or operation."[30] They further state that EBA makes no distinction between "structurally complex systems such as power grids", and "interactively complex systems such as leadership systems."[31] Therefore, the Effects-Based Approach incites the military into attempting to cause effects beyond "the realm of the physical world"—essentially hoping to make changes within "the realm of human activity."[32] The danger, they argue, lies with "causation." Dr. Tim Challans of the School of Advanced Military Studies notes that "Causation is not the proper concept when dealing with human activity. … people act for reasons, not causes."[33] Furthermore, the

theoretical structure of nodes, links, effects, etc., on which they are modeled is based more on what we *think* we know than on what we *actually* know, "thereby giving us more comfortable illusions than real knowledge."[34]

In the larger sense, arguments for and against EBA appear to be mostly academic. Students of the military art would agree that the fundamental aim of EBA—i.e., changing or influencing the behavior or capability of an adversary in ways more agreeable to friendly objectives[35]—is completely consistent with the timeless theories of strategy and warfare. Sun Tzu stated that, "All warfare is based upon deception."[36] Similarly, B.H. Liddell Hart concluded that a "perfect strategy" is one capable of achieving policy ends without serious fighting.[37] Both observations suggest a time-tested causal relationship between effects and desired *adversary behavior*. Furthermore, EBA's emphasis on understanding cause and effect is nothing new to our planning doctrine. In fact, the primary objective of EBA—determination of desired effects—is completely consistent with, and mutually supportive of, the production of mission orders.

Arguments against EBA that are based upon its reliance on an abstract representation of reality are the least stable. *All intelligence estimates represent an abstract view of reality to some degree*. They are based entirely upon what we know, or what we are willing to assume to know. Most importantly, it's reasonable to assume that the intelligence which informs an EBA analysis is the same as that which would be used in other operational planning constructs. Arguments centered on EBA's relevance to "interactively complex systems"[38] or effects within the realm of "human activity" [39] are the most interesting. In both cases, what appears to be the source of greatest contention is EBA's supposed emphasis on achieving desired "physical" effects—no doubt influenced by its origins in the U.S. Air Force as a targeting methodology[40]—and their relevance towards achieving less tangible operational and strategic effects. The first part of this concern centers on the appropriateness of applying EBA to areas innately resistant to change. The second part of this concern recognizes the enduring challenge of understanding the cause and effect relationships that exist between fairly discreet tactical actions and desired operational or strategic ends.

Understanding, or attempting to understand, the cause and effect relationships that exist between tactical actions and operational and strategic end states is the essence of the military art. EBA is no panacea for this endeavor. It's structured and systematic approach to understanding the nature of these interactions is, however, highly relevant and appropriate. Its holistic perspective is conducive to the determination of all effects—not just physical ones—and is applicable to virtually all systems and human activities.

OST: Al Qaeda as an Open System

The benefit of using OST is that terrorist organizations are, in the most pedagogical sense, social organizations, and social organizations are "flagrantly open systems." [41] The same is true for a model which might be used to represent the government's strategy implementation. OST proposes an understanding of organizations as "energic input-output system in which the energic return from the output reactivates the system."[42]

Katz and Kahn theorize that all open systems display the following nine characteristics:

1. Importation of Energy—all require "energy" from the environment; no social structure is "self contained."

2. Through-Put—some of the energy received by the organization is "transformed" or processed by the organization.

3. Output—social organizations "export some product" into the environment.

4. Systems as Cycles of Events—activities undertaken by the social organization's "energy exchange" are cyclic in nature. That is, part of the output produced returns to the system and serves to re-energize it.

5. Negative Entropy—open systems strive to "store" part of the energy they import as a reserve that can be used during periods of crisis.

6. Information Input—some of the input received is "informative" in nature, telling the organization about the environment and about its "functioning in relation to the environment."

7. Steady State and Dynamic Homeostasis—organizations will attempt to adapt to their environment by acquiring control over it; this includes incorporating external sources essential to their survival.

8. Differentiation—social organizations have a tendency to create more numerous and more elaborate roles, each with greater "specialization of function."

9. Equifinality—systems can reach the same final state from different initial conditions and a variety of paths.[43]

In simpler and more relevant terms, al Qaeda receives *input* (energy) in terms of financing, recruits, etc.—from the environment. It *transforms* that support into terrorist capabilities. It *exports* terrorism to the external environment. And the results of its terrorist acts serve to encourage new support that *cyclically re-energizes* the organization. If al Qaeda were

not "open" to the environment it would eventually run down and succumb to decay. [44] The organization's ability to disburse and hide its operatives, decentralize its operations, and maintain financial reserves all support the characteristic of *negative entropy*, and allow it to survive during times when its external resources are threatened. Also, efforts by al Qaeda to control its external environment—for example, engaging people in poorly governed regions—may produce changes in its organizational structure. Al Qaeda hopes these engagements will positively effect the groups' survival, thus reflecting the characteristic of *steady state* and *dynamic homeostasis*.[45] Finally, Al Qaeda receives informative inputs from the environment in the form of *feedback*. Losses experienced during engagements, for example, provide "negative feedback" in a process of "*single-loop learning*" that causes the organization to consider changing its tactics or strategies in order to ensure future success.[46]

Evidence suggests, however, that al Qaeda extends the creation of knowledge beyond simple feedback, and demonstrates characteristics of a true "learning organization." [47]   As such, it seeks to quickly generate and distribute knowledge throughout the organization in order to change the way it deals with both internal and external environments based on what has been learned. In doing so, it exhibits traits consistent with "*double-loop learning* processes." In short, al Qaeda embraces a doctrine of "learning to learn" that goes beyond simply correcting behavior, and seeks instead to determine "what behavior is correct."[48]

Interestingly, double-loop learning in terrorist organizations can potentially have positive influences on the implementation of our counterterrorism strategy if that strategy pursues objectives that encourage the terrorist organizations to socialize towards standards of conduct that are acceptable by all sides of the conflict. This does not mean we should negotiate with terrorists. Rather, it reinforces the notion that all social organizations must adjust to their external environment in order to survive. Such a strategy appears to have been pursued by Sinn Fein and the IRA, and will hopefully be pursued by Hamas in the case of the Palestinians.

Analysis of the internal processes of terrorist organizations is critical to developing operational and strategic effects necessary to MOE development. In examining violent non-state actors (VNSAs), Thomas and Casebeer propose "four common subsystems" pertinent to a VNSA that are extremely useful in gaining an understanding of terrorist groups. These are: "support, maintenance, cognition and conversion."[49] The "*support subsystem*"manages exchanges with the external environment consisting of "transactions" involving "recruiting, resource acquisition, stakeholder associations, intelligence gathering and product delivery." [50] The "*maintenance subsystem*" is responsible for protecting the organization from succumbing to decay. Its primary functions entail the "socialization," "sanctioning," and "rewarding" of

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personnel in order to maintain equilibrium and performance.[51] The "cognition subsystem" is essentially responsible for control and learning. It directs and coordinates the activities of the other subsystems.[52] Finally, the "conversion subsystem" is responsible for "task accomplishment." Its focus is on converting inputs and exporting product. Its functions, therefore, include production, training, and operations, among others.[53]

Factors Influencing al Qaeda's Organizational System

Aspects of the organizational system encompassing al Qaeda comprise elements of both its internal and external environments. Integral to both is the "*radical Islamic fundamentalist ideology"* that al Qaeda seeks to perpetuate. Some have argued that this constitutes the terrorist organization's center of gravity. [54] Sanctioned and interpreted by "fundamentalist Sheiks," the ideology is the "cornerstone, and justification for their actions," and a "legitimizing force"[55] My research concludes that it is not terrorist acts, per se, but the ideology that serves as al Qaeda's number one export to the environment.

Al Qaeda also enjoys enormous *popular support.* Unfortunately, it seems U.S. actions often do more to increase this support than they do to cause it to wane. When President Bush claimed he wanted bin Laden "dead or alive" he personalized it in a way that caused many Muslims to associate Osama bin Laden with themselves. When the U.S. failed to capture or kill bin Laden, his allure, his support, and his influence in the region increased.[56] This support expands as al Qaeda continues to exploit the minds of impoverished people throughout the world who "cannot understand" the reasons for their blighted existence.[57] His influence is also perpetuated by biased and corrupt *media reporting* aimed at increasing the number of Muslims who share the radical fundamentalist ideology, or are otherwise sympathetic to perceived threats against the "Islamic culture."[58]

Al Qaeda is aided by an extensive "*global network"*[59] that serves to broaden its operational and logistical support base.[60] Its world-wide operations further benefit from the effects of "*globalization"* that not only make it easier to move people, money, and commodities across international borders, but have also helped to create the dire conditions in many parts of the world that the terrorists seek to exploit.[61] The al Qaeda network is also enabled by the proliferation of *information technologies* which can be used to threaten U.S. information systems in addition to supporting real-time planning, coordination, logistics and information operations.[62] Lastly, the global terrorist network continues to benefit from "*state harboring"* to varying degrees, primarily in areas challenged by lack of governance.[63]

Al Qaeda also enjoys enormous *financial support.* In fact, some propose that "the secret to bin Laden's success is in his ability to raise, manage and move money."[64] Members are

highly diversified in the methods they use to raise and secure funds. The funds that are raised are distributed globally, transferred via licit and illicit means, and deposited in both legitimate and illegitimate institutions.[65]

Al Qaeda's command and control structure leverages many aspects of its organizational system. First, its use of advanced information technologies facilitates operations and planning as well as the perpetuation of its ideology. While the organization's central leadership is small and highly compartmented,[66] it is well supported by its vast global network that forces a reliance on decentralized operations, which some would say make the organization the "ultimate practitioner of the maneuver warfare concepts of commander's intent and mission orders."[67] Still, one of its most "dependable and resilient methods" of communications follows the age-old tradition of word of mouth that is casually referred to as the "Ethernet."[68] Finally, there is a significant reservoir of talent—ensured by popular support—that provides the organization with considerable depth and effectively negates the organization's dependence on bin Laden's survival.[69]

Measures of Effectiveness (MOEs)

Essential to the development of the conceptual framework is a discussion on what measures of effectiveness are, what challenges are faced developing them, and how they might be expanded to support the war on terror. Our goal is to establish clear measures tied to relevant effects that span the breath of a strategy

In the most fundamental sense, measures of effectiveness are standards used to evaluate the "success or progress of an operation."[70] In a more focused context, MOEs provide precision to desired effects, and help to clarify the commander's intent.[71]   MOEs do not measure task performance or accomplishment. Rather, they look to measure behavioral or capability changes—the effects on systems—pertinent to the operational environment.[72] MOEs can also include evidence of human will or intention. They can be observed (at least indirectly), and often "reside in the behavioral realm—especially with regard to the current or potential intent and capability of an adversary organization."[73]   The ultimate goal of MOEs is determining when enduring change has occurred in terms of strategic goals and objectives.[74] MOEs are crucial during policy validation and strategy formulation. They help strategic leaders gain better insight into how to better determine effects-based directives so subordinates can clearly "discern policy and intent."[75]

Effects

Developing measures of effectiveness requires us to consider not only our objectives, but those of the terrorists as well.[76] Such a dual-perspective enables a more holistic view in determining the effects necessary for success. An effect is the desired or undesired "physical or behavioral" state of a system resulting from actions between "friends, adversaries, and the environment."[77] Effects serve as the "bridge" between strategic objectives and measures of effectiveness within the conceptual framework. Effects describe the system behaviors or capabilities that need to be established or maintained within the environment to achieve the desired end state,[78] and ultimately depend on the "internal dynamics" of the adversary system.[79] Effects must be measurable (i.e., the ability to observe changes in system behavior) and achievable.[80] Variations in effects may lead to alternative ways and means for attaining the same ends. For example, although it may be desirable to terminate al Qaeda abruptly, there may be little choice but to do so systematically, over time, by eroding each of its subsystems.[81]

Challenges in Developing Measures of Effectiveness (MOEs)

Americans are a results-oriented society. We value quick returns and clear indicators of progress. Our need to know, "how we're doing?" is perhaps best captured in the cliché, "If you can't measure it, then you can't manage it."[82] Our country would not be where it is today if this were not true. However, the merits of measuring effectiveness exceed the value of the assessments alone. While MOEs may help our government determine the effectiveness of its policies, they also serve to promote the "transparency and accountability" that are essential to the democratic process.[83] That said, while the need—and benefits—of having clear, precise, and insightful measures of effectiveness may be apparent, their creation and application are often elusive. Challenges in developing MOEs have less to do with the specific area of focus, and more to do with the nature of the endeavor. In the final analysis, complex, abstract problems often afford no easy solutions and no obvious indicators of success.

The difficulty in developing critical MOEs in complex problem areas is shared by government, business, and non-profit organizations alike.[84] In examining these areas, two general trends emerge. First, organizations have a tendency to measure that which is most measurable—often focusing exclusively on outputs. Secondly, when organizations are not clear on precisely how to assess what it is they need to understand, they are inclined to measure everything.

Focusing on that which is measurable has several possible drawbacks. First, the measures in question may be irrelevant to strategic success.[85] Second, regardless of a

particular measure's significance, the fact that it's being measured often causes a disproportionate amount of emphasis to be placed upon it. In other words, "what gets measured gets performed."[86] Such measures may be short-term in nature, and thus result in "short-termist behaviour."[87] Finally, most endeavors have some form of tangible output that is usually conducive to measurement. However, "'real' effectiveness often lies in the intangibles…,"[88] with necessary measures of effectiveness that are more apt to be "process-related."[89]   When faced with these complexities, there is a tendency for the number of MOEs to grow, potentially causing critical indicators to become lost in the noise, and organizations to suffer from information overload.[90] The result becomes, "too much information and not enough guidance."[91] In the final paradox, while too few measures often fail to capture the entire picture; too many can become "confusing and not definitive."[92]

It is essential that strategic measures of effectiveness focus on an organization's overall progress towards attaining its strategic objectives. This clearly necessitates the need for their development during strategic planning.[93]

Challenges in Developing MOEs for the War on Terrorism

> To understand whether America is triumphing in its war on terrorism, it is first essential to know what victory would mean. Too narrow a definition, such as the number of arrests or prosecutions, fails to grasp completely the al Qaeda threat. Measures must also take into account al Qaeda's ability to gain new recruits, raise money, find new havens, or otherwise sustain its worldwide campaign.[94]

Challenges faced in developing MOEs for the war on terrorism follow a similar pattern to those discussed above with two notable points of emphasis. First, the criticality and associated risk of not ensuring proper alignment with strategic objectives is even more apparent. Second, an appropriate corollary to "what gets measured gets performed" is, "what gets measured gets funded."

There is no mistaking the nation's commitment to winning the war on terrorism. In the almost five years since the events of September 11, 2001, the Department of Homeland Security has been established, the national intelligence community has been overhauled, the president has been granted unprecedented authorities, U.S. military forces have engaged in world wide operations, and the Defense Department budget has nearly doubled. There, too, is no mistaking the substantial victories the country has enjoyed. Still, both our successes and our failures cause many to question the validity of our overall assessments on the war, and more importantly, their possible ramifications for the future.

Some argue that vagueness in our strategies and various espoused indicators of our success make it difficult to articulate *real* progress—primarily in terms of effectively halting terrorism—to the public and our allies. They further contend that federal agencies are still working to establish criteria by which they can measure organizational performance in executing the war on terrorism, even though over four years have been devoted to the effort.[95] Still others maintain that despite significant research in areas that gauge military effectiveness, measures relating to counterterrorism efforts "remain superficial and, in many cases, misleading," and risk potentially contributing to "complacency, poor resource allocation, and terrible surprise."[96]

Legislation holds government agencies accountable for the cost-effectiveness of their counter and anti-terrorism efforts. Essential to the accountability process is demonstrable, measurable, and effective progress.[97] One concern is that efforts to gauge progress may be undermined if criteria selectively target areas of obvious progress while other, equally important areas receive less emphasis. Another concern is that "measurable" anti-terrorism endeavors might be undertaken for reasons that are not based on specific strategic objectives.[98]

Related to funding and resourcing is the misconception that increasing expenditures are directly proportional to increasing effectiveness.[99] The cost of our efforts, thus far, is nothing short of staggering. However, the above statement has more to do with the relevance of those expenditures than it does their cost effectiveness. While sufficient funding levels are absolutely necessary for continued security and national defense, it is difficult to establish monetary requirements and at times even more difficult to justify expenses based solely on quantitative data. Measures of expenditures—or any quantitative measure for that matter—have little meaning unless they are given context. For example, reporting that $200M in terrorist assets has been seized does not alone allow one to determine how much damage has been done to the terrorist's ability to "raise or transfer additional funds."[100] Similarly, reporting on the number of key leaders captured or killed does not comment on the terrorist organization's ability to grow new leaders or become more decentralized.[101]

It's good if the statements above cause suspicion about the use of quantitative MOEs. This is not to say that quantitative measures are bad. In fact, at a more fundamental level they're often preferred on the basis that they're less subjective. In theory, quantitative measures provide measurable data, while qualitative assessments help to capture context— "Both are mutually supportive and intrinsically linked."[102] In the War on Terrorism, one can expect the strategic and operational-level MOEs associated with higher order effects to be increasingly qualitative—despite the fact that they may be based upon a combination of more measurable and observable first order effects.[103] However, it is important to avoid falling into a

body-count mentality, which interestingly enough is quite appropriate for the times. As recently stated by LTG Vines, former commander of Multi-National Corps—Iraq, "as long as ordinary Iraqis can be recruited for $150 to lay a roadside bomb, it does no good to count how many insurgents have been killed."[104]

Therefore, the ultimate challenge facing the nation with respect to measuring strategic progress in the war on terrorism is to "identify critical, outcome-determining elements and assess how well they have been mitigated."[105] This clearly leads us to the need of better aligning the nation's strategic objectives against an analytic assessment of systemic factors influencing the operational environment.

<u>Proposals for a New Conceptual Framework</u>

The conceptual framework proposed by this research for developing strategic measures of effectiveness for the war on terrorism is predicated on the following four tenets:

1. *First, our ability to assess strategy implementation begins with strategy formulation*. Communicating specific strategic objectives precisely and unambiguously fosters clarity in the determination of strategic and operational effects. A comprehensive assessment of our strategy requires a complete understanding of how well each objective is being met—in terms of the attainment of requisite effects. In this way every objective is examined singularly, on its own merit, as MOEs are identified within the overarching strategy. Such a holistic review serves to mitigate risks while reducing confusion and unintended consequences.

2. *The application of systems theory is essential to understanding the operational environment and developing clear, measurable effects*. The operational environment is composed of a multitude of socio-cultural, socio-psychological, and socio-economic factors. By dynamically relating the terrorist organization to the complexities of the environment, we gather better insights as to how terrorists influence—and are influenced—by it. This understanding helps to operationalize our strategy as knowledge provides context to the factors most influential to the terrorist organization's capabilities and behavior. The result is a more focused and synergized national effort across all available ways and means.

3. *As a social organization, Al Qaeda is best analyzed under Open Systems Theory*. That said, EBA remains the fundamental concept behind effects determination. The EBA doctrine of comprehensively examining all factors relevant to the operational environment provides the basis for understanding interactions between al Qaeda and that environment. Conceptually, however, interactions are best modeled by considering the nine characteristics describing the "energic input-output" exchange processes of open systems.[106] The structure

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provides a more intuitive representation than the node-link design typical used in EBA and better articulates the inherent relationships between internal and external processes. Essentially Open Systems Theory informs Effects Based Approach.

    4. *Assessments of success or failure regarding the war on terrorism must focus on the totality of our strategy*. This requires more than the concise alignment with strategic objectives and continuous pursuit of clarity in effects. It means accepting and incorporating qualitative context associate with quantitative statistics. It also means acknowledging the difficulty of the task, and attempting to refrain from the propensity to focus on "measuring what we can" even if it lacks relevance or has the potential of confounding our efforts.

    The essence of the conceptual framework proposed by this research exposes the utility of applying systems theory to the challenges inherent in the linking of strategic objectives for the war on terrorism to measures of effectiveness for assessing their attainment. The key to the proposed approach, however, lies in the development of an analytic structure that combines the concepts behind Open Systems Theory with the Effects-Based Approach.

Conclusions

    The nation's current strategy is both broad and inclusive, recognizing the long-term nature of the threat, and the need to approach it on multiple fronts. But the range of strategic objectives from those associated with *defeating* terrorists to those related to *defending* U.S. interests do not lend themselves to the establishment of a single golden measure. Furthermore, resource constraints and competing evaluations as to which component of the strategy is most important add a political dimension to debate.[107] However, such an expansive strategy requires equal and deliberate consideration of each facet's role in achieving enduring success.[108]

    Systems theory supports decision making, and is instrumental to strategy development and implementation. It allows us to expand the view of the battlespace to all aspects of the operational environment pertinent to adversary behavior. It provides a perspective that allows us to better posture desired operational and strategic effects to be more reflective of all potential manifestations of national power. Because they are based upon systems theory, the concepts underlying Effects-Based Approaches support the integration of all available means of achieving strategy objectives—to include influencing adversary behavior. EBA's emphasis on understanding cause and effect is fundamental to our planning doctrine and supportive of the production of mission orders. But, because terrorists groups are social organizations, the principles of Open Systems Theory provide a better construct for modeling adversary systems

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than the node-linkages approach typically utilized in EBA. The combination of both allows unique insights into factors influencing the terrorists' internal and external environments.

It is essential to incorporate MOE development processes during strategic planning, ensuring that the focus remains oriented towards the attainment of strategic objectives. Doing so forces us to consider that how we measure and assess progress in the war on terrorism effects not only strategy implementation, but also how we prioritize and allocate the resources essential to those efforts.[109]

The measures of effectiveness we require to accurately assess the war on terrorism will continue to evolve, and at times perhaps even elude us. However, we should never loose sight of the critical role they play in the development and implementation of the nation's strategy. Although the war will most likely continue to test our patience and resources for years to come, it should not challenge our resolve. Posterity demands that we remain bound to one enduring goal—winning.

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[23] Ibid., 58-59. "An effects-based approach is founded on 'General Systems Theory,' not 'Chaos Theory' or 'Complex Adaptive Systems' methods addressed in the mathematical sciences." Authors further state, "It is not an argument that most systems can be understood with anything resembling certainty or that systems can be manipulated with anything resembling deterministic mastery or precision. This concept is not a call for a systems engineering approach to the conduct of military operations. In fact, this concept is based on incomplete and often contradictory understanding of the nature of systems. Most systems will confound detailed understanding; their nodes and links cannot be accurately mapped; much of their inner dynamics will remain opaque to comprehension."

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