

# **Understanding Measures of Effectiveness in Counterinsurgency Operations**

**A Monograph**

**by**

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**AY 05-06**

REPORT DOCUMENTATION PAGE			Form Approved OMS No. 0704-0188		
The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE (DD-MM-YYYY) 25-05-2006		2. REPORT TYPE MONOGRAPH		3. DATES COVERED (From - To) SEPT 2005-MAR 2006	
4. TITLE AND SUBTITLE Monograph Title: Understanding Measures of Effectiveness in Counterinsurgency Operations			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) MAJ Douglas D. Jones			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School of Advanced Military Studies 250 Gibbon Ave Ft. Leavenworth, KS 66027			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Command and General Staff College 1 Reynolds Ave Ft. Leavenworth, KS 66027			10. SPONSOR/MONITOR'S ACRONYM(S) CGSC, SAMS		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT An examination of the theory, history, and doctrine of counterinsurgency operations is conducted to develop a general framework of an insurgency. An understanding of the general insurgency framework is then used to develop an operational design for counterinsurgency campaigns that applies logical lines of operations that are linked to the strategic end state. This framework makes it possible to develop the theory that to be useful, measures of effectiveness must contain certain characteristics. To be a valuable analytical tool that assists the commander in making decisions, a measure of effectiveness must contain the following characteristics; it must be meaningful, it must be linked to the strategic end state, it must have a strong identifiable relationship between cause and effect, it must be observable, it must be quantifiable, and it must be precise. The better a measure of effectiveness adheres to these characteristics the more valuable a tool it will be for the commander. In addition to these characteristics, an attribute of measures of effectiveness is that they must be correlated to changes in the environment to attain timeliness as the operation progresses.					
15. SUBJECT TERMS Measures of Effectiveness, Metrics, Counterinsurgency					
16. SECURITY CLASSIFICATION OF:		17 LIMITATION OF ABSTRACT  (U)	18. NUMBER OF PAGES  69	19a. NAME OF RESPONSIBLE PERSON	
REPORT (U)	b. ABSTRACT (U)			c. THIS PAGE (U)	19b. TELEPHONE NUMBER (Include area code) (913) 758-3300

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## **ABSTRACT**

**UNDERSTANDING MEASURES OF EFFECTIVENESS IN COUNTERINSURGENCY OPERATIONS** by Major Douglas D. Jones, US Army, 69 pages.

Both the National Security Strategy and the National Defense Strategy recently recognized that insurgency is causing an increased threat to the security of the world. This recognition combined with the fact that the military's counterinsurgency effort in Iraq is the central front on the Global War on Terrorism has caused the military to reorient its capabilities towards defeating the threat of an insurgency. An important piece of this reorientation needs to be focused on an increased understanding of measures of effectiveness and their integration into the operational framework of a counterinsurgency campaign.

An examination of the theory, history, and doctrine of counterinsurgency operations is conducted to develop a general framework of an insurgency. An understanding of the general insurgency framework is then used to develop an operational design for counterinsurgency campaigns that applies logical lines of operations that are linked to the strategic end state. This framework makes it possible to develop the theory that to be useful, measures of effectiveness must contain certain characteristics. To be a valuable analytical tool that assists the commander in making decisions, a measure of effectiveness must contain the following characteristics; it must be meaningful, it must be linked to the strategic end state, it must have a strong identifiable relationship between cause and effect, it must be observable, it must be quantifiable, and it must be precise. The better a measure of effectiveness adheres to these characteristics the more valuable a tool it will be for the commander. In addition to these characteristics, an attribute of measures of effectiveness is that they must be correlated to changes in the environment to attain timeliness as the operation progresses.

To validate the proposed theory that a measure of effectiveness that adheres to certain characteristics becomes a valuable evaluation tool to determine if counterinsurgency operations are meeting military objectives successfully, the metrics used in the Philippine American War from 1898-1902 and Operation Iraqi Freedom from March 2003 to January 2006 were analyzed. In both the historical example and the contemporary example, the characteristics of adequate measures of effectiveness were validated. A metric that contained all of the characteristics of an adequate measure of effectiveness was proven a valuable evaluation tool for the operational commander. In contrast, if a metric did not contain the characteristics of a good measure of effectiveness it was not a meaningful evaluation tool.

## ACKNOWLEDGEMENTS

Many people helped me greatly during the course of completing this monograph and deserve my thanks and gratitude. The staff at the Combined Arms Research Library was always friendly and professional when assisting me in acquiring valuable resource material. Ms. Angela Edwards provided outstanding technical assistance in solving any computer-related challenge and assisted in ensuring the final document followed all the appropriate formatting standards.

My thesis committee was outstanding. Dr. David Burbach provided an additional perspective on both the technical aspects of my research and editing the final text. While acting as my primary mentor, Colonel Timothy Parks, the committee chair, devoted a tremendous amount of his own time to ensure my success. He was instrumental in focusing my research efforts, provided outstanding professional advice on the subject, and meticulously edited my text to ensure the content was accurate and grammatically correct.

I must also thank my family, especially Kirsten and Aaron, who continue to suffer the loss of quality family time due to my work. My wife, Heidi was an outstanding assistant that not only proof read each draft, but also acted as a single parent as I toiled. Finally, I would like to thank God for the many blessings He has bestowed upon me, including the mental and physical ability to complete this project.

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## CHAPTER 1: Introduction

In its October 24, 2005 edition, *Sports Illustrated* published an article entitled “Measure of Success.” The article explained how the *Moneyball* math of Major League Baseball (MLB) has come to the National Basketball Association (NBA). An excerpt from the article stated, “Armed with dazzling equations, NBA front offices are finding entirely new ways to quantify a player’s talent and judge his real value.” The movement to see sports through a statistical prism was made famous by Michael Lewis’s best-selling book about Billy Beane and the Oakland Athletics.<sup>1</sup> Developing quantifiable methods to measure effectiveness is becoming more popular to the way of American life. Americans try to make sense out of the enormous amount of information being produced today using countless measures that have become both common and useful. Batting averages, annual salary, stock market figures, returns on investments, and the Gross Domestic Product are but a few familiar examples.<sup>2</sup>

Like American society, the military also uses measurable methods to analyze and justify their actions to political leaders, higher headquarters, and the public. Unit Status Reports (USR), Operational Readiness (OR) rates, and personnel retention rates are a few administrative examples of how the military attempts to analyze its ability to succeed. However, in the military the need to measure the effectiveness of its actions does not end in the administrative realm. Measures of effectiveness are just as important to any combat mission, especially counterinsurgency operations.

Donald Rumsfeld, the United States Secretary of Defense, wrote a memorandum to his four most senior subordinates, on October 16, 2003, that stated, “Today, we lack the metrics to know if we are winning or losing the global war on terror.”<sup>3</sup> The understanding that the United

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<sup>1</sup>Chris Ballard, *Sports Illustrated*, vol. 103, no. 16 (October 24, 2005): 78.

<sup>2</sup>William S. Murray, “A Will to Measure,” *Parameters*, vol. 31, no. 3 (Autumn 2001): 134.

<sup>3</sup>Department of Defense. “Global War On Terror” Memorandum. October 16, 2003. Donald H. Rumsfeld. The Memorandum was addressed to Paul Wolfowitz, Deputy Secretary of Defense, Douglas

States requires metrics to measure whether or not it is winning the current war on terrorism does not stop with the Secretary of Defense's memorandum. As evidenced by ongoing changes to Joint Doctrine publications, military commanders and political decision makers are continuing to place more and more emphasis on the importance of metrics, which in military jargon is known as measures of effectiveness.

Measures of effectiveness that accurately indicate operational success assist commanders in making accurate and timely decisions. In contrast, poorly constructed measures of effectiveness can lead a commander or policy maker to make inappropriate decisions that can result in a multitude of negative effects that will not bring the organization closer to reaching its objectives. In addition to falling short of mission objectives, pursuing analysis and collection on poorly developed measures of effectiveness is a misuse of valuable resources and efforts.<sup>4</sup> As insurgency forces in Iraq continue to battle Coalition forces and the nascent Iraqi government, it is well worth the effort to examine how the measures of effectiveness a military organization can develop at the operational level of war can assist in determining if its efforts are defeating an insurgency.

Based on the current threat to the United States, the importance of understanding measures of effectiveness in counterinsurgency operations is not just limited to efforts in Iraq, but it is emerging as a global concern. The National Defense Strategy (NDS) of the United States of America made this clear by its characterization of the changing security environment. The NDS listed four primary types of threat challenges: traditional, irregular, catastrophic, and disruptive.

Although each of these challenges is a threat to national security, the NDS implied irregular challenges will provide the most wide spread threat. The NDS recognized the importance of traditional challenges but also stated, "[A]llied superiority in traditional domains,

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Feith, Undersecretary of Defense for Policy, General Richard Myers, Chairman of the Joint Chiefs of Staff, and General Peter Pace, Vice Chairman of the Joint Chiefs of Staff.

<sup>4</sup>Murray, 134.

coupled with the costs of traditional military competition, drastically reduce adversaries' incentives to compete with us in this arena."<sup>5</sup> The NDS recognized that only "some hostile forces are seeking to acquire catastrophic capabilities."<sup>6</sup> In regards to disruptive challenges the NDS stated, "some potential adversaries are seeking disruptive capabilities to exploit U.S. vulnerabilities."<sup>7</sup> While the NDS limited the threats of traditional, catastrophic, and disruptive challenges, it also recognized the growing irregular challenges that face the United States. "Increasingly sophisticated irregular methods – e.g., terrorism and insurgency challenge U.S. security interests. . . . The absence of effective governance in many parts of the world creates sanctuaries for terrorists, criminals, and insurgents."<sup>8</sup> Although recognizing the threat posed by insurgents and terrorists is not new, acknowledging that traditional threats are drastically reduced, while irregular threats, such as insurgency and terrorism are intensifying, is an unprecedented approach.

The NDS further stated, "Our experience in the war on terrorism points to the need to reorient our military capabilities to contend with such irregular challenges more effectively."<sup>9</sup> An important piece of this prescribed military reorientation needs to be on understanding measures of effectiveness and how they integrate into the operational framework of a campaign plan. As the United States addresses the admittedly growing problem of worldwide insurgencies, an effective way to husband valuable resources and military efforts is to develop effective metrics that would enable military commanders and policy makers to evaluate analytically if the execution of their strategy was successfully defeating the insurgents.

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<sup>5</sup>Department of Defense. *The National Defense Strategy of the United States of America*. Washington D.C.: Government Printing Office. March 2005. Donald H. Rumsfeld: 3. Hereafter cited as the *The National Defense Strategy of the United States of America*.

<sup>6</sup>Ibid., 3.

<sup>7</sup>Ibid., 4.

<sup>8</sup>Ibid., 3.

<sup>9</sup>Ibid, 3.

Although there is a need to examine and understand measures of effectiveness at all levels of war and in all types of operations, the focus of this study will be on counterinsurgency operations at the operational level. The goal is to determine if it is possible to construct measures of effectiveness that will adequately evaluate if an operational level commander is properly directing his forces and resources in time, space, and purpose to defeat an insurgency.

Prior to understanding if measure of effectiveness can be a valid tool for a commander, it is important to understand the theory, history, and doctrine of insurgency operations. This understanding will lead to a common insurgency framework.

Many publications have examined the theory of insurgency operations. Unfortunately, it is very difficult to devise an analytical model to study insurgency since the phenomenon is so complex and comprehensive. The result is that most attempts have failed at providing an adequate framework. However, Bard O'Neill's, *Insurgency and Terrorism: Inside Modern Revolutionary Warfare*, does an outstanding job of providing a framework to evaluate and analyze insurgencies and terrorist activities, past, present, and future. O'Neill systematically examined insurgency and terrorism in a method that allows either a military professional or an armchair strategist to apply his framework to any environment to gain a better understanding of the threat.

Although the book provided a valuable framework that can be used to analyze either an individual case study or comparative analysis of campaigns it is a general approach to a multifaceted problem. O'Neill himself alluded to the fact that no framework is infallible.<sup>10</sup> As such, although O'Neill's insurgency framework provided the basis for this study, other sources discussing insurgency theory were also used to complement O'Neill's framework.

Theory is just one aspect to consider when studying insurgency campaigns. It is also important to understand the fundamental principles the military is currently using to prosecute counterinsurgency campaigns successfully. Although conflicts involving insurgencies have often

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<sup>10</sup>Bard E. O'Neill. *Insurgency and Terrorism: Inside Modern Revolutionary Warfare* (Dulles, Virginia: Brassey's Incorporated, 1990), 163.

occurred in the history of the American Army, the preponderance of military doctrine has remained focused on conventional operations. The role of the United States Army in counterinsurgency operations is covered in FMI 3-07.22, *Counterinsurgency Operations* and FM 3-07, *Stability Operations and Support Operations*. FMI 3-07.22 is an interim Field Manual that provides fundamental principles and Tactics, Techniques, and Procedures (TTPs) for military operations in a counterinsurgency environment. It was written to provide urgently needed doctrine to conduct counterinsurgency operations in support of the Global War on Terrorism. The interim manual is broad in scope and focuses on tactical principles that are applicable to leaders at the division level and below. FM 3-07 provides general doctrinal guidance with a focus on neutralizing the insurgency by rendering it ineffective through political reform. The manual also has an appendix that outlines the characteristics of insurgency. FM 3-07's counterpart in Joint doctrine is Joint Pub 3-07.1, *Joint Tactics, Techniques, and Procedures for Foreign Internal Defense (FID)*. It stresses the need to conduct close coordination across the Diplomatic, Economic, Military, and Informational elements to be successful in counterinsurgency operations.

Understanding the theory, history, and doctrine of counterinsurgency operations is a vital step in being able to analyze the complicated nature of past, present, and future insurgencies. In addition, this understanding will enable the development of a general model of operational design, which uses logical lines of operations. This analytical effort will also make it possible to consider measures of effectiveness as useful evaluation tools as opposed to metrics that only measure movement away from the status quo. Before attempting to understand the concept of measures of effectiveness, it is necessary to establish a common understanding of terminology. Precision in language is connected to precision in thought. It is only through agreement of definitions and a common framework of insurgency that applying measures of effectiveness to counterinsurgency operations becomes useful. Unless concepts are clearly defined and understood, discussing how measures of effectiveness can enable successful counterinsurgency

operations is impossible.<sup>11</sup> A detailed analysis of the term measures of effectiveness and its corresponding concepts will result in a theory that to be an adequate tool of evaluation, measures of effectiveness must adhere to certain characteristics. These characteristics will be outlined and discussed in detail.

After examining the theory, history, and doctrine of insurgency and counterinsurgency operations and outlining the characteristics of adequate measures of effectiveness, those characteristics will be analyzed to validate their usefulness in evaluating success. Although many historical examples of counterinsurgency operations exist, this study will look at the effectiveness of the metrics used in the Philippine American War from 1898-1902 and Operation Iraqi Freedom from March 2003 to January 2006. An analysis of these campaigns will reveal both effective and ineffective metrics in counterinsurgency operations.

Using two examples to validate a proposed concept is a proven method to establish the legitimacy of a novel theory.<sup>12</sup> Although less thorough than examining many counterinsurgency operations, using two counterinsurgency examples to validate the characteristics of adequate measures of effectiveness is a valid method. Within the scope of this study, it is the preferred method for three reasons. The first two reasons are simply a matter of time and resources. The third and most important reason is that, by considering just two counterinsurgency operations, it is possible to examine the fine details of the complex and ambiguous environment associated with defeating an insurgency. This detailed examination is required to analyze the linkages between measures of effectiveness that are focused along logical lines of operations within the design of a counterinsurgency campaign and the strategic end state. Understanding these linkages is essential because the development of a campaign plan must consider the ambiguous and complex nature of

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<sup>11</sup>The Washington Institute for Near East Peace. "Assessing The Iraqi Insurgency (Part ) I: Problems and Approaches." [document online]; available from <http://www.washingtoninstitute.org/templateC05.php?CID=2282>, Internet; accessed on October 21, 2005.

<sup>12</sup>Todd Landman. *Issues and Methods in Comparative Politics* (New York, NY: Routledge, 2003), 24.

an insurgency environment. Within the scope of this study, examining too many countries would force the analytic examination of each counterinsurgency effort to reach an unacceptable level of abstraction.<sup>13</sup> Only a detailed examination of a counterinsurgency campaign will make it possible to validate the characteristics of adequate measures of effectiveness.

The primary document for examining the Philippine War was *The U.S. Army and Counterinsurgency in the Philippine War, 1899-1902* written by Brian McAllister Linn. Linn provided valuable insight into the complex environment the United States Army faced in defeating the Filipino Nationalists that resorted to guerilla warfare in 1899. Linn did an excellent job of detailing the insurgent infrastructure, the use of terrorism by insurgent forces, the military's use of native Filipino auxiliary forces, and American efforts in the areas of civil government and public works. The counterinsurgency campaign in the Philippines enables the examination of metrics and their linkages between logical lines of operations and the strategic end state.

Although Operation Iraq Freedom is still in progress, victory is a vital interest to the United States because Iraq is the central front on the Global War on Terror.<sup>14</sup> Analyzing an ongoing conflict has some challenges that can only be overcome through time. Although for numerous reasons, some information is unavailable, unexamined, or simply inaccurate, there is ample information that is accessible. While there is risk in analyzing an ongoing event that has not been placed through the scrutinized lens of history, it is worth taking that risk for the opportunity to understand how the characteristics of measures of effectiveness apply to the current operational design.

Clearly, measures of effectiveness are gaining importance in American culture. However, without a clear understanding of the phrase measures of effectiveness, the concept is useless. After examining the theory, history, and doctrine of insurgency and counterinsurgency

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<sup>13</sup>Landman. Pages 23-36 discuss the methods of analyzing countries and the advantages and disadvantages of comparing many, few and one country.

<sup>14</sup>National Security Council. *National Strategy for Victory in Iraq* (Washington D.C.: Government Printing Office, November 2005), 1. Hereafter cited as *National Strategy for Victory in Iraq*.

operations, this study will narrow the broad concept of metrics into sharply defined characteristics of adequate measures of effectiveness. These characteristics of adequate measures of effectiveness will then be applied to a general framework of an operational design that will enable a commander to use metrics as a valuable tool. Most importantly, the study will conclude with validated characteristics of adequate measures of effectiveness that a military organization can develop at the operational level of war to enable the organization to evaluate its military efforts and determine if it is successfully accomplishing its operational objectives.

## CHAPTER 2: Background

### A General Framework of Insurgency

Insurgency is not a new type of threat. It has occurred since the existence of organized political communities. Dating back 2,000 years, the Roman Army faced the phenomenon in Gaul, Judaea, and elsewhere.<sup>15</sup> During the existence of insurgency, its strategic significance has ebbed and flowed.

During the Cold War, the United States focused its National Security Strategy on a military force that could defeat its communist counterpart, the Soviet Union, in a conventional battle that everyone assumed would occur along the Fulda Gap. Now, indicators confirm that the strategic importance of insurgency is more relevant than it has been since the Cold War.<sup>16</sup> By implying that irregular challenges will provide the most wide spread threat to national security, the recent National Defense Strategy is one such indicator. Another indicator is the military's current efforts to focus emerging doctrine on counterinsurgency operations.

The protractedness and ambiguity of insurgency is a challenge for the United States because those characteristics diminish the effectiveness of the American military.<sup>17</sup> Past American strategy and doctrine documented that the key to counterinsurgency was to ensure the American military was capable of helping another nation's local security and intelligence forces in that nation's efforts to defeat insurgent threats. American strategy used indirect means rather than the large-scale application of military force to counter worldwide insurgent threats. The 1987 *National Security Strategy* declared that indirect military power, particularly security assistance,

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<sup>15</sup>O'Neill, 1.

<sup>16</sup>Steven Metz and Raymond Millen. *Insurgency and Counterinsurgency in the 21<sup>st</sup> Century: Reconceptualizing Threat and Response* (Carlisle Barracks, PA: Strategic Studies Institute, 2004), vi.

<sup>17</sup>*Ibid.*, vi.

was the primary tool for defeating counterinsurgency.<sup>18</sup> The 1998 *National Security Strategy* stated that United States engagement, “must be realistic, often discreet, and founded on a clear relationship between the conflict’s outcome and important U.S. National security interests.”<sup>19</sup>

Following the context of the National Security Strategy, in December 1990, the Army published FM 100-20, *Military Operations in Low-Intensity Conflict*. The date, one year after the fall of the Berlin Wall, speaks to the popular, but inaccurate accusation that the U.S. Army avoids conflicts that fall short of large-scale combat operations. FM 100-20 declared U.S. activity in counterinsurgency was based on the concept of internal defense and development (IDAD). The principles of IDAD stated that, “The burden of carrying on the conflict must remain with the government. . . . To do otherwise is to "Americanize" the conflict, destroying the legitimacy of the entity we are attempting to assist.”<sup>20</sup> FM 100-20 did not rule out direct tactical involvement by American forces but it did much to discourage such an effort.

In order to adhere to the National Security Strategy and the ongoing counterinsurgency efforts in both Afghanistan and Iraq, the Army published FMI 3-07.22, *Counterinsurgency*. Whereas preceding doctrinal manuals dedicated a chapter or often less to counterinsurgency operations, in FMI 3-07.22, the Army dedicated an entire document to the fundamental principles and the training, techniques and procedures of military operations in a counterinsurgency environment. Just as American policy-makers have recognized the increase of insurgent operations throughout the world since the fall of the Berlin Wall, Army leadership has also recognized the need to address the growing problem of insurgency. FMI 3-07.22 states, “The role of the Army in counterinsurgency operations is to administer, train for, and successfully conduct

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<sup>18</sup>Ibid., 11

<sup>19</sup>U.S. President. *The National Security Strategy of the United States of America* (Washington D.C.: Government Printing Office, January 1988), 34.

<sup>20</sup>U.S. Department of the Army. Field Manual 100-20, *Military Operations in Low-Intensity Conflict* (Washington, DC: Government Printing Office, December 1990), 2-15.

full spectrum operations, with great emphasis on stability operations.”<sup>21</sup> Emerging Army doctrine implies the U.S. Army must take a much more active role in counterinsurgency operations.

Despite having a long history with insurgency, the United States has organized, trained, and equipped its military forces to defeat a conventional threat with a focus toward large-scale operations that require kinetic energy. In his article, “Winning the Peace: The Requirement for Full-Spectrum Operations”, Major General Peter Chiarelli, alluded to this fact, “Our traditional training model, still shuddering from the echo of our Cold War mentality, has infused our organization to think only in kinetic terms.”<sup>22</sup> As the National Security Strategy, military doctrine, and military leaders place more and more focus on counterinsurgency operations, it is important to understand the theory of insurgency.

Insurgency is a strategy adopted by organizations that cannot reach their political objectives through conventional means or by a rapid and forceful seizure of power.<sup>23</sup> These organizations are typically too weak or incapable of adopting other approaches. Characteristics of insurgency include a protracted timeline, asymmetric violence, the use of complex terrain, psychological warfare, and political mobilization.<sup>24</sup> Typically, insurgents will avoid any decisive military action that would lead to their defeat. Instead, insurgents opt for protracted actions that allow them to erode the will, strength, and the legitimacy of the current political regime using violence, political actions, and psychological operations. The insurgents use their actions to sustain themselves and attain greater popular support until the balance of power changes to their favor. The end state of the insurgents is to change a current political system so that it more resembles their ideology. The extent to which they are willing to do this often does not end until the insurgents have completely overthrown the government they oppose.

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<sup>21</sup>U.S. Department of the Army. Field Manual 3-07.22, *Counterinsurgency* (Washington, DC: Government Printing Office, October 2004), 2-3.

<sup>22</sup>Peter W. Chiarelli, Major General and Patrick R. Michaelis, Major. “Winning the Peace: The Requirement for Full-Spectrum Operations.” *Military Review* vol. 85, No. 4 (July-August 2005), 15.

<sup>23</sup>Metz and Millen, 2.

<sup>24</sup>*Ibid.*, 2.

Analyzing insurgency is difficult because of the ambiguous environment in which it exists. Any attempt at analyzing an insurgency is complicated by a lack of standardized terminology. In Joint Publication 1-02, *Dictionary of Military and Associated Terms*, the military defines an insurgency as “An organized movement aimed at the overthrow of a constituted government through use of subversion and armed conflict.”<sup>25</sup> According to most insurgency theory, this definition is too specific. It implies the end state is to overthrow the government, but that is not always the end state of an insurgency. Some insurgencies have more limited goals ranging from separation, autonomy, or simply altering a particular policy. In *Insurgency and Terrorism: Inside Modern Revolutionary Warfare*, O’Neill presented a broader definition, “A struggle between a nonruling group and the ruling authorities in which the nonruling group consciously uses *politic resources* (e.g., organizational expertise, propaganda, and demonstrations) and *violence* to destroy, reformulate, or sustain the basis of legitimacy of one or more aspects of politics.”<sup>26</sup>

When considering insurgency the misunderstandings do not stop with terminology. In addition, the collective understanding concerning the characteristics of insurgency is not standardized. This occurs because each insurgency has its own unique characteristics based on the strategy of the insurgents, the environment, the resources and support available, as well as the strength of the opposing government. Although it is important to acknowledge that differences between insurgencies do exist, it is more significant to realize that there are many similarities. Most insurgencies follow a common life cycle with similar characteristics. By understanding the common characteristics of insurgency, it is analytically possible to consider the complex nature of the subject with a structured framework.<sup>27</sup> Using a framework to outline the elements of

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<sup>25</sup>Department of Defense. Joint Publication 1-02, *Dictionary of Military and Associated Terms* (Washington, DC: Government Printing Office, April 2001), 264.

<sup>26</sup>O’Neill. 160.

<sup>27</sup>*Ibid.*, 13.

insurgency and the characteristics of successful insurgency will provide a common understanding of the phenomenon.

There are generally four elements of an insurgency. They are the leadership, the combatants, the cadre, and the mass base.<sup>28</sup> Historically, these are the elements that rebel against an existing government.

The leadership is responsible for the command and control of the insurgency. This element is responsible for formulating the strategy. The leadership believes that the current situation is so egregious that violent action is required to change the political system. The leadership is the element that is willing to do whatever is necessary to force change.

The combatants are the next element. These individuals conduct the actual fighting by implementing the strategy of the leadership through their actions. Usually the combatants maintain local control by attempting to become the law enforcement strength or military force of a location.

The cadre is the political element of an insurgency. They act as political activist and local political leaders of the insurgency. The cadre receives their guidance from the leadership. The cadre combines the guidance from leadership with the environmental situation to determine their actions.

The last element is the mass base, which consists of the followers of the insurgent movement. Generally, the cadre recruits and indoctrinates the mass base. Mass base members do not fight for the insurgency. Instead, they provide intelligence and logistical support. Mass base members can continue with their normal positions in society and provide clandestine support to the insurgency. Sometimes mass base members will become combatants.

Generally, these four elements comprise an insurgency. Typically, an insurgency begins as a weak and disorganized entity with survival as its main objective. Eventually, an insurgency

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<sup>28</sup>FM 3-07.22, 1-2. The elements of an insurgency are discussed from pages 1-1 to 1-3.

must take direct action against the opposing government. This action, which is determined by the leadership, can include guerilla warfare, terrorism, assassination of officials, sabotage, and other types of asymmetric violence. During this time, the insurgents continue to improve their skills, acquire resources, and mobilize support. Historically, most insurgencies have failed.<sup>29</sup>

Insurgencies that have succeeded did so by avoiding decisive military engagement, by developing effective force protection measures, sharpening counterintelligence capabilities, and gaining the support of the population. These techniques provide enough time for the insurgency to alter the balance of power.

Although each insurgency is unique, they have common characteristics that include; precondition, strategy, ideology, and leadership. Insurgencies start with a precondition that allows it to progress. The insurgency leadership capitalizes on the precondition to form a strategy. The strategy will include force protection, actions to erode the will, strength, and legitimacy of the opposed regime, and augmentation of resources and support. In addition, every insurgency has an ideology that may or may not fully emerge. The final characteristic of an insurgency is leadership. These characteristics provide a framework for analysis of an insurgency. What makes understanding insurgency so difficult is that these characteristics are all interrelated and cannot be considered separately. The importance of each characteristic depends on each of the factors that shapes the environments, making it impossible to declare that there are guaranteed laws of insurgency.

Insurgency results when the proper conditions are present. The most important precondition is frustration and a belief that the existing political system will prevent improvement of the situation.<sup>30</sup> This precondition can emanate from a small group and does not have to be the belief of the majority of the population.

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<sup>29</sup>Metz and Millen, 5.

<sup>30</sup>Ibid., 6.

The next common characteristic is the strategy of the insurgency. Although there are no perfect categories that will precisely fit all past and present or future insurgent strategies, O'Neil suggests four distinct types of strategy. They are conspiratorial, protracted war, military focus, and urban warfare.<sup>31</sup> Understanding the basic strategy of the insurgency will allow a systematic analysis of its strengths and weaknesses. More importantly, it allows planners to discern what an insurgency is trying to do in order to achieve its goals. This is crucial knowledge when forming the measures of effectiveness that will gauge the success of a counterinsurgency campaign.

The conspiratorial strategy is the least complicated insurgent strategy. Its goals are to remove the ruling political authorities through a limited but swift use of force. A conspiratorial strategy is most effective when it is conducted by a small, secretive, disciplined, and well-organized group. The best example of a successful conspiratorial strategy is the 1917 Bolshevik insurrection in Russia, which was led by Vladimir Ilyich Lenin.<sup>32</sup>

The protracted war strategy is the most complex strategy. It stresses political primacy, mass organization, and gradually escalating violence. In the protracted war strategy, the struggle is assumed to be very long. Generally, the peasantry will be the most important revolutionary class. The protracted war consists of three sequential phases; the strategic defensive, strategic stalemate, and strategic offensive. The strategic defensive is used to gain support and build the organization. It is characterized by insurgents focusing on survival, political organization, and low-level violence. The second phase is the strategic stalemate. It is the longest phase and is characterized by guerilla warfare. As the guerilla warfare achieves success against the legitimacy of the opposing government the insurgency moves to the final phase, the strategic offensive. In this phase the insurgents conduct conventional attacks on a large scale. The insurgents combine these attacks with the effects of political and psychological actions to force a collapse of the

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<sup>31</sup>O'Neil, 31.

<sup>32</sup>Ibid., 32. The conspiratorial strategy is discussed on pages 32 to 34.

opposing government. The best example of this strategy is Mao Tse-Tung's successful uprising in China in the 1930's and 1940's.<sup>33</sup>

The military focus is the next strategy. It gives primacy to military action and makes political action less important. In this strategy the insurgents do not make a systematic attempt to sustain its efforts through political actions. The insurgents understand the importance of popular support but either believe the popular support is sufficient or that it will be maintained as a second order effect of the military victories. An example of the military focus strategy is the Cuban insurrection led by Fidel Castro in the 1950's.<sup>34</sup>

The final strategy is the urban-warfare strategy. In urban-warfare, insurgents use small organizations to conduct low to moderate terrorist or guerilla attacks in urban centers to achieve their goals. This strategy includes the option of moving out toward rural areas. Increased urbanization in many parts of the world has caused this strategy to emerge. The Irish Republican Army (IRA) in Northern Ireland is an example of an insurgency using this strategy. Although the ultimate goals vary, insurgents use the urban-warfare strategy to erode the governments will to resist.<sup>35</sup>

The strategy an insurgency pursues will have a great impact on its actions. Even though a particular strategy is adopted it does not mean the insurgency is confined to only those actions that define that strategy. Like the characteristics of insurgency, the strategies of insurgency are not unbreakable rules. However, the basic strategy of an insurgency is generally recognized as fitting into one of these categories. Regardless of which strategy an insurgency pursues, certain elements will accompany the chosen strategy. The most common of these elements are force protection, actions to erode the will, strength, and legitimacy of the current regime, and augmentation of resources and support. Understanding the strategy of the insurgency enables a

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<sup>33</sup>Ibid., 35. The protracted war strategy is discussed from pages 34 to 41.

<sup>34</sup>Ibid., 44. The military focus strategy is discussed from pages 41 to 45.

<sup>35</sup>Ibid., 46. The urban-warfare strategy is discussed from pages 45 to 49.

better understanding of how the insurgency will conduct force protection, take action to erode popular will, and maintain its resources and support.

Because insurgencies are long conflicts that often last decades, force protection is an important element to their strategy. According to Mao, “To win victory, we must prepare in the War of Resistance, in the united front and in the protracted war.”<sup>36</sup> The ability to survive can be the key to ultimately winning. This means that insurgents must avoid decisive military operations that would decimate their ability to continue the cause. Effective strategies have all adhered to the principal of force protection.

Because insurgency is the weaker element in the struggle, it is important that part of their force protection includes the ability to learn. This is essential to force protection. If insurgencies fail to learn and improve their skills, then they jeopardize their ability to continue their struggle against a more capable military threat.

In addition to avoiding decisive battle and improving skills, another important aspect of force protection is the ability to conduct successful counterintelligence operations. An insurgency must prevent elements of the counterinsurgency from identifying its fighters. “To defeat an insurgency you have to know who the insurgents are—and to find that out, you have to win and keep the support of the people.”<sup>37</sup> If a counterinsurgency is able to get the advantage in the fight for intelligence it will diminish the force protection capability of the insurgency which could result in the demise of the uprising.

Although force protection is vital to the success of an insurgency, without taking offensive actions the insurgents can never attain their goals. The type of strategy an insurgency adopts will influence the type of offensive actions the movement is capable of conducting. While

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<sup>36</sup>Mao Tse-Tung. *Selected Writings of Mao Tse-Tung, reprinted in US Army Command and General Staff College, A699 The Evolution of Military Thought. (Fort Leavenworth, KS: USACGSC, December, 1990), 228.*

<sup>37</sup>John Nagl. *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife* (Chicago, IL: University of Chicago Press, 2005), xiii.

attempting to improve its own legitimacy, an insurgency must eventually take actions to erode the will, strength, and legitimacy of the opposing regime. An insurgency will use a combination of violent, political, and psychological methods to achieve their goals. An insurgency generally maintains greater flexibility in its actions because it is not constrained by legal or ethical considerations.<sup>38</sup> In addition, they do not have the cumbersome burden of running a government that is tasked with maintaining security and political stability. In most third world countries, the burden of governing their society is more than the government can handle. This often gives the advantage to the insurgents.

The final element to consider when studying the characteristics of strategy is how the insurgency approaches its augmentation of resources and support. Generally, an insurgency requires five types of resources: manpower, funding, equipment and supplies, sanctuary, and intelligence.<sup>39</sup> Manpower can come from a multitude of sources. In countries with poor economic structure and high unemployment rate, recruitment is easier. The support does not have to come from internal sources. Manpower can also come from outside sponsors. Some insurgencies maintain manpower through impressment. Funding can also come from a variety of sources. It can also be an important factor in the strategy and level of action an insurgency is willing to pursue. Equipment and supplies are an important consideration for any insurgency, especially the procurement of arms, ammunition, and explosives. Logistical support can be provided from outside sources, can be seized from within the country, or a majority of it may already be on hand. Effective sanctuary is a great advantage to an insurgency. Although sanctuary is often a result of geographical and political factors, it can also be the result of good counterintelligence efforts. Just as important as the insurgent's ability to conduct counterintelligence is the ability to gather intelligence. This effort will determine the overall effectiveness of the insurgent strategy. When considering the augmentation of resources and support it is important to understand that the

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<sup>38</sup>Metz and Millen, 6.

<sup>39</sup>Ibid., 7.

ability to achieve goals in an insurgency conflict often depends on the ability to gain popular support.<sup>40</sup>

Insurgents use ideology to explain why the opposing government is unreasonable. In addition, insurgents use ideology to unify their effort and rationalize the use of violence in order to achieve their goals. To be effective the ideology must explain the discontent and offer a viable solution. It builds on preconceptions, grievances, resentments, hopes, beliefs, cultural variables, historical factors, and social norms.<sup>41</sup> Some of the most powerful ideologies tap into either dormant or emotive concerns of the populace, such as the desire for justice or the creation of an idealized religious state.<sup>42</sup> Religious groups in particular can capitalize on their hierarchal or pyramidal structures to carry out planning, coordination, and execution of both political and military activities. An example of exploiting religion as an ideology occurred in the 1979 Iranian Revolution when Ayatollah Khomeini and his followers successfully used the extensive networks of Shi'ite mosques to gain popular support.<sup>43</sup> Overall, ideology influences the insurgent's strategy and their perception of the environment, which in turn determines the actions of the organization.

The last common characteristic to consider is effective leadership. The importance of leadership is demonstrated in the fact that the successful strategies used by insurgents in the past are now synonymous with the terminology of their strategy. Conspiratorial strategy is also known as the Leninist strategy and the popular war movement is referred to as the Maoist strategy. Leading an insurgency is very difficult and involves extraordinary danger and hardship to reach success. Leaders must be flexible and charismatic enough to unify the movement. They also have to have a strong will that is capable of persevering against insurmountable odds. The leadership

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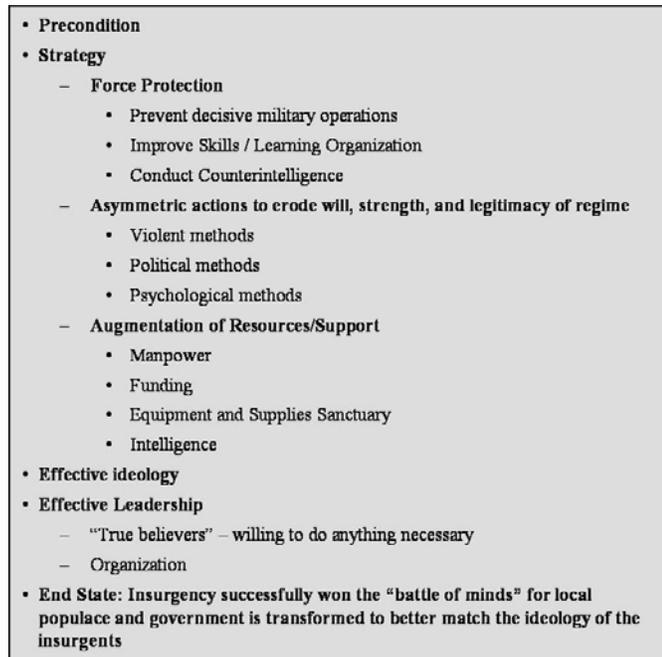
<sup>40</sup> U.S. Department of the Army. Field Manual 3-07, *Stability and Support Operations* (Washington, DC: Government Printing Office, February 2003), 3-4.

<sup>41</sup> Metz and Millen, 7.

<sup>42</sup> FM 3.07.22, 1-8.

<sup>43</sup> O'Neill, 93-94.

will unite the remaining elements of the insurgency. The leader's ability to understand and interrelate the characteristics of the insurgency will determine its strengths and weaknesses.



**Figure 1:** Framework of Insurgency<sup>44</sup>

The framework of insurgency provides a common understanding of the complex and ambiguous phenomenon. Having a common understanding of insurgency is an essential step in understanding measures of effectiveness. A common understanding of insurgency will enable the examination of an operational framework that uses logical lines of operations to prevent the insurgency from gaining popular support and radically transforming the political system.<sup>45</sup>

## **A Model of Logical Lines of Operations**

The characteristics of an insurgency result in an ambiguous and protracted challenge. These conditions are difficult for the military because its organization and doctrine are focused on rapid decisive operations in which the military is the dominant instrument of power. However, in

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<sup>44</sup>“Figure 1: Framework of Insurgency” is offered as a visual aid to provide a concise synopsis of the common framework of insurgency. Its contents are a compiled from the preceding text concerning a common understanding of insurgency.

<sup>45</sup>O’Neill, 16.

counterinsurgency operations the military battle space is not decisive. Defeating an insurgency requires the military to play a supporting role to other government agencies as well as the supported government and that government's security forces. An additional struggle is that the other U.S. government agencies are not effective at conducting the political, psychological, and economic challenges that are required to optimize the counterinsurgency effort. Insurgency is a holistic threat that requires a holistic and integrated counterinsurgency response.

The nature of an insurgency requires the military to consider its operational framework closely. Compared with conventional combat operations the operational framework is different in counterinsurgency operations because the insurgents concentrate on preventing the military battle space from becoming decisive, while focusing on political and psychological actions.<sup>46</sup> Because the operational framework is different, the context in which the elements of operational design are considered are also different in counterinsurgency operations.

Although different, the elements of operational design still help to clarify and refine the vision of operational level commanders by providing a framework to describe operations in terms of task and purpose.<sup>47</sup> A significant difference is that in counterinsurgency operations positional references to an enemy or adversary has little relevance, so a commander may visualize the operation along logical lines of operations, instead of the traditional lines of operations. According to Army doctrine, "Commanders link multiple objectives and action with the logic of purpose – cause and effect."<sup>48</sup> Commanders must synchronize counterinsurgency activities along multiple logical lines of operation to achieve the desired end state. Although each campaign plan will have different logical lines of operations, it is possible to develop a model for a typical operational design based on the insurgency framework outlined earlier.

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<sup>46</sup>Metz and Millen, 23.

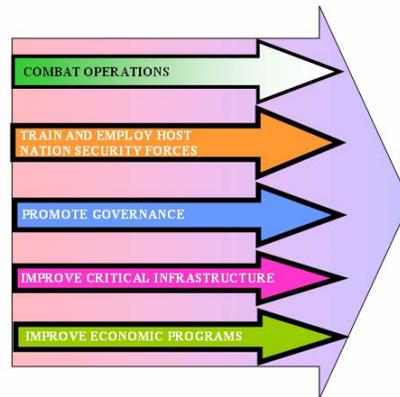
<sup>47</sup>U.S. Department of the Army. Field Manual 3-0, *Operations* (Washington, DC: Government Printing Office, June 2001), 5-6.

<sup>48</sup>*Ibid.*, 5-9.

Although each insurgency has its own unique characteristics that can even change during the conflict, the general framework coalesces the common factors that affect the progress and outcome of an insurgent conflict.<sup>49</sup> Because an insurgency has common factors, the efforts of a counterinsurgency will also contain commonality, which enables the development of common logical lines of operations. Generally, these common logical lines of operations can be applied to any counterinsurgency conflict. Success in counterinsurgency operations is discussed in FM 3-07.

Success in counterinsurgency goes to the party that achieves the greater popular support. The winner will be the party that better forms the issues, mobilizes groups and forces around them, and develops programs that solve problems of relative deprivation. This requires political, social, and economic development. Security operations by military and police forces, combined with effective and legitimate administration of justice, provide the necessary secure environment in which development can occur.<sup>50</sup>

By combining what doctrine defines as success in counterinsurgency with the common framework of insurgency, analysis reveals that most counterinsurgency operation can develop an operational framework that will include the following logical lines of operations; combat operations, train and employ host nation security forces, promote governance, improve critical infrastructure, and improve economic programs.



**Figure 2:** General Model of Logical Lines of Operations<sup>51</sup>

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<sup>49</sup>O'Neill, 10.

<sup>50</sup>FM 3-07, 3-4.

<sup>51</sup>“Figure 2: General Model of Logical Lines of Operations” is a graphical depiction of the text that described a general model for logical lines of operations.

Combat operations is the first logical line of operations. A secure environment is essential to the success of the counterinsurgency. An insurgency will take violent actions to erode the will, strength, and legitimacy of the regime. If the counterinsurgency fails to provide a secure environment, the legitimacy of the government will diminish. In addition, freedom of maneuver will be lost, which will inhibit the efforts of further military, political, and social actions.

The second logical line of operations is train and employ host nation security forces. A critical part of achieving success in counterinsurgency operations is enabling the host nation to resume the military aspects of the counterinsurgency campaign and creating a condition in which U.S. combat forces may withdraw.<sup>52</sup> Employing host nations security forces also improves the legitimacy of the government and aids in attaining support of the government and in attaining the support of the populace. Although security remains important throughout a counterinsurgency, eventually the host nation must be able to protect its population with its own security forces. Therefore, train and employ host nation security forces normally will be a logical line of operations within the operational framework.

Insurgency is generally the result of some government or political crises.<sup>53</sup> This means promoting governance will usually be an essential task of the counterinsurgency force. In addition, a strong and viable host nation government that is considered legitimate to the local populace will typically prevent the insurgency from reaching its desired end state. For these reasons, promote governance will generally be a logical line of operation.

Achieving popular support and eliminating the perception or reality of relative deprivation are difficult tasks. A method to achieve these tasks is to improve the critical infrastructure. Often in despondent areas, improving the critical infrastructure is a requirement to improving the capabilities of the host nation's political and security apparatuses. Improving the critical infrastructure inhibits the insurgents' efforts to gain the support of the populace, while

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<sup>52</sup>FM 3-07.22, 2-4.

<sup>53</sup>O'Neill, 170.

enhancing the legitimacy of the government. Generally when designing the operational framework of a counterinsurgency, improving the critical infrastructure will be a logical line of operations.

The last logical line of operations in the general model is improve economic programs. A major challenge in most countries that experience an insurgency is economic underdevelopment.<sup>54</sup> A poor economy often leads to a strong recruiting population for the insurgency, and it adds to the problem of relative deprivation. Improving economic programs is essential to efforts of a counterinsurgency. By applying the common framework of insurgency to the history and doctrine of counterinsurgency it is possible to develop a general model for logical lines of operations. Although logical lines of operations will depend on the environment within each counterinsurgency campaign, the logical lines of operations outlined above will be applicable to most counterinsurgency operations.

### **Characteristics of Adequate Measures of Effectiveness**

Currently, the Army does not have a doctrinal method to evaluate the effectiveness of its actions along a particular line of operation. By using measures of effectiveness as a tool that links the logical lines of operations to the operational objectives and eventually the strategic end state, commanders can develop the measurement technique necessary to evaluate the success of their counterinsurgency operations.

It is possible to link measures of effectiveness to logical lines of operations because many of an insurgency's characteristics can be assessed, defined, and quantified.<sup>55</sup> However, measuring data in counterinsurgency operations is very difficult. Unlike conventional operations, tactical and operational victories alone do not equal success against insurgents because psychological and

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<sup>54</sup>Ibid., 3.

<sup>55</sup>The Washington Institute for Near East Peace. *Assessing The Iraqi Insurgency (Part) II: Devising Appropriate Analytical Measures*. [document online]; available from <http://www.washingtoninstitute.org/templateC05.php?CID=2282>, Internet; accessed on October 21, 2005.

political factors play a key role. This phenomenon was illustrated by both the United States in Vietnam and by Israel against Hezbollah in Lebanon.<sup>56</sup> In both cases, the conventional armies won nearly every battle but still did not achieve their strategic objectives.

By understanding the insurgency framework, it is possible to develop metrics that can measure the effectiveness of each logical line of operations. Useful measures of effectiveness would allow counterinsurgency commanders to assess effectiveness or ineffectiveness and make well-informed adjustments to the arrangement of friendly forces and resources in time, space, and purpose. Though difficult, properly developing measures of effectiveness should be a critical component to counterinsurgency operations. By properly developing measures of effectiveness, commanders can better plan the transfer of control of a counterinsurgency operation to nonmilitary organizations and eventually the supported government, which is generally the strategic goal.<sup>57</sup> In order to accomplish this, the concept of measures of effectiveness must be understood.

There have been few serious attempts to identify meaningful measures of effectiveness for counterinsurgency operations.<sup>58</sup> This does not mean metrics are not important. In fact, measures of effectiveness are so important to the current mission in Iraq that the U.S. Congress has mandated the Department of Defense provide a quarterly report to Congress that measures the stability and security in Iraq. Congress requested the report comment on the situation in Iraq by addressing specific baseline metrics, measurements, and indicators of Iraq's security, political and economic environment.<sup>59</sup> However, the context in which these measures of effectiveness are being used does not translate to a technique that provides an operational commander the information needed to make decisions.

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<sup>56</sup>Ibid.

<sup>57</sup>Field Manual 3-07.22, 2-15.

<sup>58</sup>Richard Darilek. *Measures of Effectiveness for the Information-Age Army* (Santa Monica, CA: RAND, 2001), 98.

<sup>59</sup>House, *Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief Act*. 109<sup>th</sup> Cong., 1<sup>st</sup> sess., 2005. H.R. 2813, 97.

Part of the problem stems from the broad definition of measures of effectiveness. The Department of Defense defines measures of effectiveness as “tools used to measure results achieved in the overall mission and execution of assigned tasks.”<sup>60</sup> Despite the vast use of the term, the United States Army has not defined measures of effectiveness in its doctrine. In 2001, in an attempt to clarify the use of metrics, the Director of Strategy, Plans, and Policy, Office of the Deputy Chief of Staff for Operations and Plans, Department of the Army Staff sponsored a project to have the RAND Corporation develop a better understanding of measures of effectiveness. The report acknowledged that the vast amounts of information that exist as a result of the Information Age cannot be understood without developing a quantifying or measuring effect to make sense of the data. “Chief among the analytical tools required are good measures of effectiveness that can demonstrate the value of information in terms of military outcomes.”<sup>61</sup> The report even included an entire chapter on measures of effectiveness in stability and support operations.

The report, which is one of the best efforts the Army has made to make sense of measures of effectiveness, missed the mark. Using the broad Department of Defense definition, the report focused much more on assigned tasks than mission results. Measures that include tonnage of logistics supported and timeliness of support are important assigned tasks but do not let the commander discern if he is defeating an insurgency. Less useful is the fact the report is mathematically complex using different levels of calculus and differential equations. Measures of effectiveness that reveal the quality of assigned tasks and require an extensive math background to understand are not useful in discerning to an operational commander if his military actions are being conducted along logical lines of operations and are having the effect needed to defeat the insurgency. The measures of effectiveness that are useful to the commander and that need to be

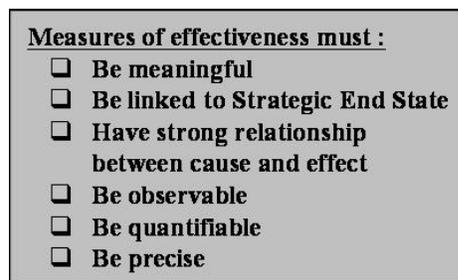
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<sup>60</sup>JP 1-02, 331.

<sup>61</sup>Darilek, xiii.

analyzed are the metrics that a military organization must develop at the operational level of war to evaluate analytically if its efforts are defeating an insurgency.

The broad definition of measures of effectiveness adopted by the Department of Defense is adequate for the general method in which the military uses metrics. However, the definition requires less ambiguity when using it to determine success in counterinsurgency operations at the operational level. In order to diminish ambiguity and make the term useful, a measure of effectiveness should contain the following characteristics: it must be meaningful, it must be linked to the strategic end state, it must have a strong identifiable relationship between cause and effect, it must be observable, it must be quantifiable, and it must be precise. The better a measure of effectiveness adheres to these characteristics the more valuable a tool it will be for the commander.

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- Measures of effectiveness must :**
- Be meaningful**
  - Be linked to Strategic End State**
  - Have strong relationship between cause and effect**
  - Be observable**
  - Be quantifiable**
  - Be precise**

**Figure 3:** Characteristics of Adequate Measures of Effectiveness

To understand fully each of these characteristics, a measure of effectiveness involving electricity will be examined. For each of the characteristics, suppose an operational commander has identified in his operational framework a logical line of operations that focuses on improving the critical infrastructure in his area of operations. After conducting mission analysis, the commander determines electricity is a key component of the critical infrastructure. The commander's operational objective is to ensure the production and delivery of electricity. After careful consideration of a measure of effectiveness to assess the success of this endeavor he avoids the simple Megawatts of electricity produced and adroitly chooses average hours of

available power. With this background, it is possible to evaluate the metric against each of the characteristics of measures of effectiveness previously outlined.

According to the model, a measure of effectiveness must be meaningful. Meaningful means that the metric must allow the commander to make a decision on arrangement in time, space, and purpose of his assets with respect to his operational framework.<sup>62</sup> By measuring, the average hours of available power the commander can assess the effectiveness of this line of operation within his region. If there is a sudden shift in either, the average hours or the available power the commander has an effective tool to realize there will be a change in the environment. This information allows the commander to consider the consequences of the environmental changes and adjust his friendly forces and resources accordingly.

The next characteristic of a good measure of effectiveness is that it must be linked to the strategic end state. Generally, when a country is conducting a counterinsurgency operation the ultimate end state is to help the assisted country in becoming a stable, unified, and prosperous nation. Improving the electricity is an acceptable method to ensure this end state is reached. The obvious weakness to this aspect is that a measure of effectiveness is only as good as the strategic end state of the campaign. If a nation does not articulate a good end state, then this characteristic loses its validity. However, if the strategic level has not articulated a good strategic end state, the operational framework of any counterinsurgency effort will be faulty. Even though the quality of the strategic end state is dependent upon the competence of the strategic leadership, it is important to ensure a measure of effectiveness is linked to the strategic end state.

The next characteristic of a good measure of effectiveness is that it must have a strong identifiable relationship between cause and effect. The challenge with linking cause and effect to measures of effectiveness is that it requires the ability to understand causality.<sup>63</sup> To do this a counterinsurgency must understand the country's society, culture, habits, personality, governance,

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<sup>62</sup>FM 3-07.22, 2-16.

<sup>63</sup>Murray, 136.

religion, and psychology, as well as that of the insurgency. Although this task is daunting, it does not prevent planners from developing good measures of effectiveness. If a counterinsurgency does not understand these factors, the adverse effects will be limitless. In the case of the hours of electricity or the amount of power the population is receiving, there is often a clear cause and effect. For example, in Iraq, operational commanders have determined a direct correlation between the level of electricity and other infrastructure aspects with unemployment figures and attacks on U.S. soldiers.<sup>64</sup> Force protection is always an important consideration and operations that reduce attacks on force structure result in a positive outcome. In order to be useful, a good measure of effectiveness must have a strong identifiable relationship between cause and effect.

Measures of effectiveness must also be observable. Being observable is not as simple as just being seen. To be considered observable, the observation must also be discernable. Although the characteristics of observable works well with the example of average hours of available power, not all proposed measures of effectiveness are observable. The number of insurgents is a classic example. The insurgents' tactics are employed in such a manner that he cannot be observed. In addition to hit and run tactics and the emplacement of bombs, the insurgents purposely blend in with the populace. All of these factors make the observation of an insurgent difficult. Unless a measure of effectiveness can be observed, it is useless.

In addition, a measure of effectiveness must be quantifiable. This means it must be possible to measure the quantity of the metric. In the instance of average hours of available power, it is possible to quantify hours using time and power using Megawatts of electricity. If science were void of either of these quantifiable measurements, the metric would not allow the commander to make an informed decision. To be a useful metric, the identified measure of effectiveness must be quantifiable.

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<sup>64</sup>Chiarelli and Michaelis, 10.

The last characteristic of a good measure of effectiveness is that it must be precise.<sup>65</sup> The metric must be exactly or sharply defined or stated. If the electrical measurement tools in Iraq were not calibrated exactly and the amount of Megawatts of electricity was not a defined measurement, the commander would be making decisions on false information. It could cause the commander to alter the arrangement of his forces and resources in time, space, and purpose when such an alteration was not necessary. If a measure of effectiveness is not precise, it is not useful.

In addition to adhering to these characteristics, an additional attribute of a measure of effectiveness is that it must be correlated to the progress of the operation to attain timeliness. A measure of effectiveness must be reviewed to consider changes within the environment.<sup>66</sup>

**Measures of Effectiveness must:**  
 Be correlated to the progress of the operation to attain timeliness

**Figure 4:** An Attribute of Adequate Measures of Effectiveness

Counterinsurgency operations happen in a complex and ambiguous environment where almost all actions cause second order and hidden effects that constantly change the situation. This means measures of effectiveness must constantly be reviewed. When using the average hours of available power as a metric, the measure of effectiveness would need to be adjusted if certain circumstances occurred. For example, as the economy increases and more people are able to purchase microwaves, clothes dryers, and other appliances of convenience, the demand for electricity would increase. If this fact was not considered and the measure of effectiveness was not updated accordingly, the commander could make a decision to change his force structure and resources linked to electricity when such a decision would not address the real problem.

However, if he knew the demand went up and the measure of effectiveness was changed to reflect the increase in demand, the measure of effectiveness would not result in a poor decision by the

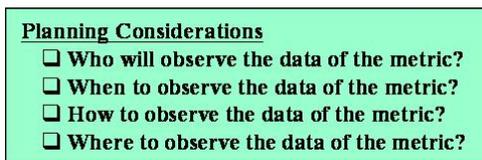
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<sup>65</sup>Murray, 136.

<sup>66</sup>U.S. Congress. Committee on Armed Services. *Are We Winning in Iraq*. March 17, 2005. Report prepared by Andrew F. Krepinevich. 109<sup>th</sup> Cong., 1<sup>st</sup> sess., 2005, 8.

commander. Even when a measure of effectiveness contains all of the characteristics it needs to be a valuable tool, it must also be correlated to the progress of the operation to remain useful.

Planners must not stop after developing metrics that adhere to the characteristics of adequate measures of effectiveness. In addition, planners of a counterinsurgency must determine who will observe the data, when to observe the data, how to observe the data, and where to observe the data.<sup>67</sup> Like any reconnaissance mission, the planners must allocate the required force structure and resources to ensure the information required to obtain measures of effectiveness data is properly tasked. These challenges must be considered when measures of effectiveness are developed to ensure the assets are synchronized within the commander's operational framework.



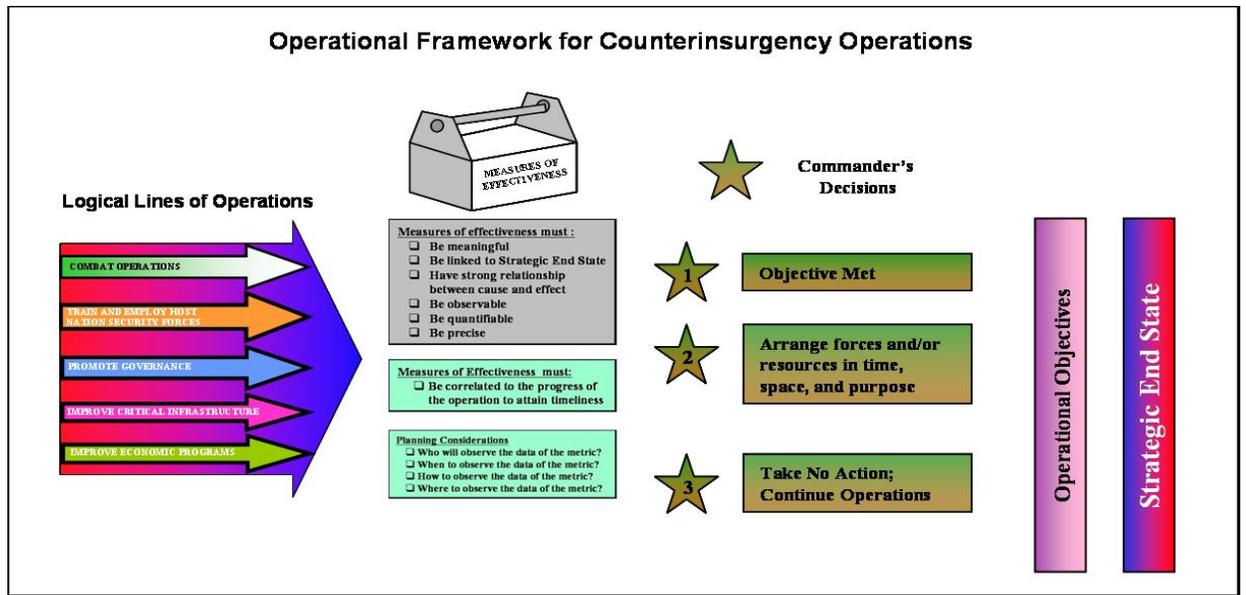
**Figure 5:** Obtaining the Data of Adequate Measures of Effectiveness

There is no doubt the world is experiencing an increased threat to insurgency. The National Security Strategy and corresponding military doctrine are adapting to meet this threat. Although insurgency is a complex and ambiguous phenomenon, it does contain common characteristics that allow a military to apply lessons learned from one insurgency to another.<sup>68</sup> The common characteristics of insurgency provide a framework of knowledge that enables a general understanding. This common framework makes it possible to apply the characteristics of adequate measures of effectiveness to design metrics that can evaluate the success of an operational framework that has linked its logical lines of operations to the strategic end state.

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<sup>67</sup>FM 3-07.22, 2-16.

<sup>68</sup>O'Neill, 160.



**Figure 6:** Using Adequate Measures of Effectiveness as Tools for a Commander's Decisions<sup>69</sup>

As an evaluation tool, it is possible to use adequate measures of effectiveness to enable a commander to make a decision. By basing decisions of the arrangement of forces and resources in time, space, and purpose on information obtained from adequate measures of effectiveness the commander is able to get the best use of his valuable assets. By employing an evaluation tool that maximizes the application of forces and resources along logical lines of operations, the military efforts to defeat an insurgency are greatly enhanced.

<sup>69</sup>FM 3-0, 5-9 and Chiarelli and Michaelis, 7. "Figure 6: Using Adequate Measures of Effectiveness as Tools for a Commander's Decisions" is an expansion of graphics used in FM 3-0 and by MG Chiarelli in "Winning the Peace: The Requirement for Full-Spectrum Operations." The graphic adds the missing concept of using measures of effectiveness as an evaluation tool to allow a commander to make decisions on the application of forces and resources in time, space, and purpose.

### **CHAPTER 3: Historical Validation of the Characteristics of Adequate Measures of Effectiveness**

One of the most famous quotes made by George Washington, the first President of the United States, comes from an address to Congress on January 8, 1789, in which he stated, “To be prepared for War is one of the most effectual means of preserving peace.”<sup>70</sup> War, a complex and ambiguous endeavor, often increases in both complexity and ambiguity when a military is attempting to defeat an insurgency. One of the best ways to prepare for such a challenge is to study past counterinsurgency battles. Likewise, one of the best methods to validate the usefulness of the characteristics of measures of effectiveness is to examine the model in a historical setting.

The characteristics established for adequate measures of effectiveness in counterinsurgency operations must be validated. By applying the general model for measures of effectiveness to a historical counterinsurgency operation, it is possible to examine the characteristics of measures of effectiveness to determine if they are adequate tools to evaluate the success of operations in a campaign plan that is conducted along logical lines of operations. The counterinsurgency conflict that will be examined is the Philippine American War. The focus will be on the period from 1898 until 1902. Although some historians consider the war to have lasted until 1913, President Roosevelt declared that the insurgency was over on July 4, 1902.

Before considering the counterinsurgency effort, the nature of the insurgency in the Philippines must be examined. After that, the strategic end state of the counterinsurgency will be described. This will provide the detailed background required to understand the development of the operational framework employed by the counterinsurgency effort. By considering the operational framework as it is linked to the strategic end state along logical lines of operations, it

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<sup>70</sup>Washington to Congress, January 8, 1790, The George Washington Papers at the Library of Congress, 1745-1799 [document online]; available from [@field3004](http://www.memory.loc.gov/cgi-bin/query/r?ammemmgw) Internet; accessed December 28, 2005.

is possible to examine the measures of effectiveness and determine to what extent they were valid evaluation tools to judge if military efforts were successfully accomplishing objectives. If the metrics were not valid tools it will be determined if the lack of usefulness was a result of failing to adhere to the characteristics of adequate measures of effectiveness.

The conflict in the Philippines started after the United States defeated Spain in the Spanish-American War, which lasted from April 21, 1898 until August 12, 1898. As part of the Paris of Treaty's provisions, the United States paid Spain \$20 million to acquire the title to the Philippines. In 1898, the archipelago consisted of 7,108 islands and over seven million inhabitants.<sup>71</sup>

At the time, the Spanish, who had ruled the Philippines for more than 300 years, were already in the second year of a native uprising led by Emilio Aguinaldo y Famy.<sup>72</sup> Although Aguinaldo had no military training and little education, he did possess charisma and some shrewdness. Aguinaldo used the Spanish-American War as an opportunity to achieve Filipino sovereignty and on June 12, 1898, he issued a declaration of independence similar to the one constructed by Thomas Jefferson and issued by the colonies in 1776.<sup>73</sup>

The situation in the Philippines left William McKinley, the President of the United States, with a difficult dilemma. Knowing he needed more information to make a sound decision McKinley appointed the First Philippine Commission to evaluate the situation on the islands and provide a recommendation on the archipelago's disposition. The chairman of the commission, Jacob Schurman, the President of Cornell University, concluded the natives were not currently capable of self-government but that the Philippines should eventually become independent.<sup>74</sup>

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<sup>71</sup>Max Boot. *The Savage Wars of Peace: Small Wars and the Rise of American Power*. (New York, New York: Perseus Books Group, 2002), 106.

<sup>72</sup>Ibid., 104.

<sup>73</sup>Brian Linn. *The Philippine War 1899-1902*. (Lawrence, KS, University Press of Kansas, 2000), 21.

<sup>74</sup>Timothy K. Deady, "Lessons from a Successful Counterinsurgency: The Philippines, 1899-1902." *Parameters* vol. 35. No. 1 (Spring 2005), 56.

Based on the recommendation, McKinley decided to annex the entire Philippines. His decision placed two forces at odds. The United States was determined to exercise sovereignty while the Filipinos, under the leadership of Aguinaldo, were determined to be independent.<sup>75</sup>

Although Aguinaldo's forces outnumbered the Americans nearly 8 to 1, his poorly equipped army was not capable of fighting the technologically superior American forces in a conventional style. After suffering numerous defeats and losing the initiative, Aguinaldo held a Council of War on November 13, 1899.<sup>76</sup> The council decided to dissolve his Army of Liberation and resort to guerilla warfare. This decision made it clear, the United States would have to conduct a successful counterinsurgency campaign to defeat Aguinaldo and his men.

Although the military leadership did not place the same emphasis on measures of effectiveness as today's leadership does, it is possible to examine how metrics were used to determine the military's success in accomplishing its objectives during the Philippine American War. As with most strategies in times of war, the American strategy in the Philippines evolved over time. The initial strategy proclaimed by McKinley was the military orders he gave to the 12,500-man expeditionary force sent to the Philippines. The first American troops reached the Philippines at the end of June 1898 with the vague objective to, "complete the reduction of Spanish power in the archipelago" and provide "order and security to the islands while in the possession of the United States."<sup>77</sup> The strategy further evolved to one of benevolent assimilation when McKinley made a public proclamation on December 21, 1898, that explained the goal of the military administration in the Philippines. It is now referred to as the "Benevolent

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<sup>75</sup>Allan R. Millet and Peter Maslowski, *For the Common Defense: A Military History of the United States of America* (New York, NY: The Free Press, 1984), 289.

<sup>76</sup>Boot, 112.

<sup>77</sup>Ibid., 104.

Assimilation Proclamation.” McKinley declared, “[T]he mission of the United States is one of benevolent assimilation substituting the mild sway of justice and right for arbitrary rule.”<sup>78</sup>

In early January of 1900, McKinley appointed the Second Philippine Commission to gain the required information to further develop the American strategy. At the time, the naval powers of Germany, France, Great Britain, and Japan were shadowing the American Navy throughout the Asian region.<sup>79</sup> For strategic requirements, the United States needed to match their competitors by acquiring their own base in the region and ensure they would have access to the Asian economic market. There was also fear in the American administration that both the Germans and the Japanese would colonize the Philippines if given the opportunity. When Schurman, the head of the Philippine commission reported that the Filipino natives were not capable of self-government the Americans could not afford to allow a power vacuum in the archipelago that could easily be exploited by another nation.

It was determined the keys to preventing a power vacuum were to improve the country’s critical infrastructure and implement and guide the development of a democratic society similar to that in the United States.<sup>80</sup> As Aguinaldo and his rebels continued to derail the American efforts it became more evident that although winning the hearts and minds of the Filipino’s through benevolence was important, the insurgency could only be defeated by military terms.<sup>81</sup> This realization meant another key to preventing a power vacuum was the military defeat of Aguinaldo and his insurgents.

As the strategic end state of the United States evolved and gained clarity, the military operational framework also developed. In order to accomplish the tasks of the President and defeat the threat, the insurgency had to be defeated in military terms, which required combat

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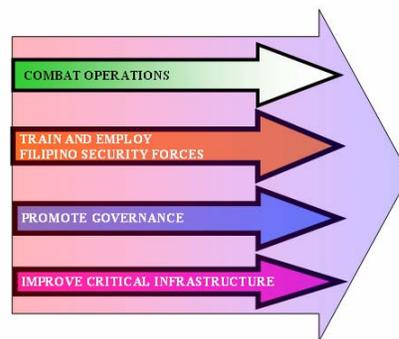
<sup>78</sup> Full text of President William McKinley’s “Benevolent Assimilation Proclamation.” [document online]; available from <http://www.msc.edu.ph/centennial/benevolent.html>; Internet, accessed on December 30, 2005.

<sup>79</sup> Boot, 105.

<sup>80</sup> Deady, 56.

<sup>81</sup> Boot, 115.

operations. The goal was to eventually allow the Filipino's to self-govern. This meant the Philippines required a strong viable government and a capable security force. In addition, the country's infrastructure needed to be improved to gain the support of the Filipino population. These facts meant that the lines of operations that emerged for the Philippine American War focused on combat operations, training and employing Filipino Security Forces, improving critical infrastructure, and promoting governance. These lines of operations match well with the model of operational design for counterinsurgency operations discussed previously.



**Figure 7:** Logical Lines of Operations for the Philippine American War<sup>82</sup>

The missing element of improve economic programs was important but was not part of the initial operational design. Although economic improvement was experienced in many of the critical infrastructure reforms, it was not a focus. The main reason for the lack of economic focus is that the United States fiscal power was curbed in the Philippines to avoid the appearance of any ulterior motives or conflict of interests and to strengthen American claims toward benevolence. Congress ensured this was accomplished by barring large land holdings by American citizens or corporations.<sup>83</sup>

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<sup>82</sup>“Figure 7: Logical Lines of Operations for the Philippine American War” is a graphical depiction of the logical lines of operations used to analyze measures of effectiveness. The logical lines of operations were developed using the preceding text concerning the operational environment that existed in the Philippine's during the conflict.

<sup>83</sup>Deady, 61.

Now that the operational framework for the counterinsurgency in the Philippines has been outlined, it is possible to examine the measures of effectiveness that corresponded to each logical line of operations. Three measures of effectiveness will be examined along the combat operations line of operations. The first two measures of effectiveness that will be considered are which key leaders have been killed, captured, or surrendered and what type of weapons and ammunition are the insurgents using. Both of these measures were adequate tools to measure military effectiveness. The last metric that will be analyzed is the number of garrisons in operation, which fell short of being an adequate indicator of success.

A key element of counterinsurgency operations is to kill, capture, or force the insurgent's key leaders to surrender. This fits into the operational design along the line of operations called combat operations. The operational objective is to kill, capture, or force the capitulation of the insurgents' key leaders. Eliminating the insurgent's key leaders is directly linked to the strategic end state because it provides a peaceful and stable environment that sets the conditions to establish and eventually transfer the Philippines to a democratic independent nation, which is allied to the United States.

In order to examine the measures of effectiveness related to killing, capturing, and the surrendering of key insurgent leaders, it is important to have a better understanding of the situation. There were three locations of major instability in the Philippines during the war. Aguinaldo was the leader of the biggest concentration of threat, which operated on the island of Luzon and focused on operations near Manila. General Miguel Malvar led an insurgent group that operated out of Batangas Province. The final threat came from General Vicente Lukban and his group of insurgents that operated on Samar Island. Throughout the campaign, the military focused on capturing key leaders. The Americans nearly caught Aguinaldo in December of 1899, which forced the insurgent leader to the mountains in Northern Luzon.<sup>84</sup> Even though Aguinaldo

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<sup>84</sup>Ibid., 55.

was not captured the continuous pressure placed on the leader forced him into hiding and prevented him from providing command and control to his disparate bands of guerillas.

On January 8, 1901, Brigadier General Frederick Funston's soldiers captured couriers from Aguinaldo's headquarters. Funston was able to decrypt the couriers' dispatches and used them to set up an elaborate ruse to capture Aguinaldo. On March 23, 1901, Aguinaldo was captured.<sup>85</sup> Within a month of his capture, Aguinaldo issued a proclamation accepting American sovereignty and called on his compatriots to end the resistance. Aguinaldo's capture and subsequent proclamation resulted in thousands of insurgents surrendering, while others quit fighting and returned home.<sup>86</sup> In addition, the capture of the insurgent leader coupled with other successes produced a large increase in the number of Filipinos willing to work for the Americans.

By the summer of 1901 only two sizeable insurgent efforts remained. The Army continued to focus combat operations to capture or kill both Malvar operating in the Batangas Province and Lukban operating on Samar Island. The military efforts were successful and in February 1902 Lukban surrendered. Shortly after Lukban's capitulation, in April 1902 Malvar also surrendered to American forces.<sup>87</sup> As with the capture of Aguinaldo, the surrender of Lukban and Malvar produced an increase in the number of insurgents surrendering, while others ceased their hostile action and returned home.

The measure of effectiveness, which key leaders have been killed, captured, or surrendered was a good metric. It was meaningful because it allowed the operational commander to decrease the troop concentration in the area where a key leader was neutralized and focus more combat effort against remaining insurgent leaders. It was clearly linked to the strategic end state of a stable and peaceful Philippines. In addition, it set the conditions to promote democratic governance. The measure of effectiveness had a strong relationship between the cause and the

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<sup>85</sup>Boot, 117.

<sup>86</sup>Millet and Maslowski, 294.

<sup>87</sup>Ibid., 294.

effect. In general, if insurgent leaders are killed, captured or surrender it demonstrates the insurgency has an inability to protect their infrastructure and it discourages recruitment.<sup>88</sup> In the Philippines, the effect was clearly seen by the increase in the number of insurgents that surrendered or ceased hostile action due to the capture of Aguinaldo and surrendering of Lukban and Malvar.

The measure of effectiveness was also easily observable, quantifiable, and precise. Depending on the type of insurgency, observing and quantifying key leaders is not always possible. Currently insurgents are moving more toward a cellular approach that is more difficult to observe and quantify. However, within the operational framework developed in the Philippines, the metric of determining which key leaders have been killed, captured, or surrendered worked well. Within the Philippine environment, this successful metric met all the characteristics of an adequate measure of effectiveness.

Another effective metric was what type of weapons and ammunition are the insurgents using. Within the operational design, an objective along the combat operations line of operations was to conduct a blockade. The purpose of the operational objective was two-fold. One purpose was to prevent the insurgents from acquiring equipment and supplies, especially weapons and ammunition. The other purpose was to prevent the insurgents from reinforcing each other along waterways. These operational objectives were directly linked to the strategic end state. By eliminating the water as a transportation source to acquire supplies and move personnel, the blockade contributed to a stable and peaceful environment within the Philippines. The blockade also allowed the American Navy to prove its ability to project naval power in the region.

Although at the time, there was not a clear objective to measure the effectiveness of the blockade, historians have analyzed its success using factors that could have been adopted by the military at the time. The navel blockade prevented Aguinaldo from receiving foreign arms

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<sup>88</sup>Krepinevich, 10.

shipments, from moving supplies, and from reinforcing units.<sup>89</sup> One of the best indicators of these facts is that the primary source of weapons and ammunition for the insurgents was captured rifles and ammunition. Throughout the conflict, insurgents outnumbered rifles. Documents even show that the leadership directed the insurgents to save rifles over comrades when having to decide between the two. Another indicator of a successful naval blockade was that most of the ammunition used by the insurgents was reloaded cartridges. The reloaded cartridges had a 60 percent chance of misfiring.<sup>90</sup>

Although it was not used at the time, historical analysis showed that measuring what type of weapons and ammunition the insurgents were using, would have been a good measure of effectiveness. In this campaign, it was a meaningful metric because it allowed the commander to make decisions. If a commander received a report that all of the insurgents had weapons or that their ammunition was not misfiring at such a horrendous rate, the commander would know that the blockade was not effective and could take action. If the weapons and ammunition capability of the insurgents improved, it would also make the commander consider the force protection posture of his units. A major reason the United States military could operate in numerous small and dispersed units was the inferior weapons and ammunition of the insurgents.

The measure also indicated a strong relationship between cause and effect. Based on the decisions a commander may need to make, it is clear the cause of insurgents acquiring better weapons and ammunition would result in an effect of improved enemy capability. In the Philippines, the United States military had the ability to observe the precise type of weapons and ammunition the insurgents were using and could quantify such use. Although the military's ability to quantify number of weapons was limited, the focus was on the quantity of types of weapons not the amount of weapons.

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<sup>89</sup>Boot, 127.

<sup>90</sup>Deady, 60.

It is clear that the geography and the technology of the era played a role in the usefulness of this measure of effectiveness. The same measure of effectiveness would not be valid if numerous smuggling lanes existed through mountain passes or if the archipelago had previously been saturated with modern rifles and ammo. Although what type of weapons and ammunition the insurgents were using was not used as a metric during the time, for this campaign, the metric met all of the characteristics of a good metric and would have been an adequate tool to determine the effectiveness of the naval blockade. This metric exemplifies the need to follow the attribute of correlating measures of effectiveness to the progress of the operation. If the insurgents had ever received new weapons and ammunition, the ability to quantify would have been lost rendering the metric ineffective.

One of the metrics that was not effective was the number of garrisons in operation. In order to provide a stable and peaceful environment that would accept the spread of democracy, one of the military operational objectives was to cut the insurgents off from civilian assistance by garrisoning the countryside.<sup>91</sup> Initially, Major General Elwell Otis, the United States Commander in charge at the start of hostile action, focused the military pacification efforts on civic action programs that specifically targeted the municipal level.<sup>92</sup> Otis was replaced by Major General Arthur MacArthur in May of 1900. At the time, Otis believed his efforts had broken the will of the insurgents. In reality, the insurgents were only attempting to regroup after Aguinaldo's decision to switch from conventional tactics to guerilla tactics and the leader was forced to evacuate into the mountains of Northern Luzon due to the pursuit of the Americans.

At the time there were only 53 garrisons operating in the Philippines. As soon as the insurgents started aggressive offensive guerilla operations MacArthur quickly increased the number of garrisons. By October 1900, there were 413 garrisons in operation. However, this still did not thwart the success of the insurgents, who had increased their level of activity in an attempt

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<sup>91</sup>Boot, 127.

<sup>92</sup>Deady, 55.

to influence the American presidential elections. Although the defeat of the anti-imperialist candidate, William Jennings Bryan, was a major setback to the insurgents, they were not defeated. MacArthur continued to increase the number of garrisons. By December 1901, the military was operating 639 garrisons.<sup>93</sup>

Throughout the counterinsurgency campaign, the number of garrisons in operations was constantly tracked as a sign of success. However, it was never a good measure of effectiveness. The metric did not contain the characteristics of an adequate measure of effectiveness. It was not a meaningful metric, it had a poor relationship between cause and effect, and it was not precise. Despite these facts, it could be linked to the strategic end state and was easily observable and quantifiable. Overall, it was an inadequate metric. It was used because it was thought that an increased number of garrisons would put more soldiers living and working in the communities. This would increase the soldiers' ability to track and eliminate insurgents, while building a rapport with the Filipino populace.

Although these facts are true, they are not meaningful. The commander could not make a decision based on the number of garrisons in operation. In fact, 34 of the 74 provinces in the Philippines never experienced insurgent activity.<sup>94</sup> In addition to not being able to make a decision by knowing the number of garrisons in operation, the cause and effect although present did not possess a strong identifiable relationship. Precision was also a problem. Not only did the garrisons vary in size, but the insurgents also conducted operations differently in different regions, which meant there were huge variations in the level of insurgent activity and techniques. The commander needed to know much more information than just the number of garrisons before he could make a decision to change the mission of his soldiers. In addition, the varying activity and technique of the enemy throughout the Philippines made predicting the effect of the number

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<sup>93</sup>Linn, 199.

<sup>94</sup>Deady, 55.

of garrisons impossible. As evidenced by analysis, without a meaning, a strong relationship between cause and effect, and precision, a metric is not an adequate tool.

The next line of operations that will be examined is train and employ Filipino security forces. The metric used to measure the effectiveness of training and employing Filipino security forces was the number of security forces trained and employed. This metric was inadequate because it lacked meaning and had a poor relationship between cause and the effect. The commander required more information before the number of security forces trained and employed would provide any meaning. To make a decision to train more security forces and how many more or to move security forces to another location would require additional information. Just knowing the number of security forces did not have a strong relationship between the cause and effect. The commander would also need to know what level of training the security force possessed. In addition, he would also need to know the capability of the security forces. For example, the action of having 5,000 security forces that are capable of defeating three to five man insurgent teams is worthless when the outcome required is a security force capable of defeating coordinated attacks of platoon-sized elements that possess extensive experience in improvised explosives. Although the American military was successful in training and employing Filipino security forces, the measure of effectiveness used to determine success was not adequate.

The critical infrastructure line of operations contained several areas of focus within the operational design. Although the American military was very successful in its efforts to build roads, improve communications infrastructure, improve public health, develop an education system and increase sanitation, only the metric concerning communications will be examined.

A major obstacle that challenged the military was its ability to communicate with its dispersed garrisons. In June of 1899, only 139 miles of cable connected the 8<sup>th</sup> Corps Headquarters with its subordinate commands.<sup>95</sup> The lack of communication infrastructure within

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<sup>95</sup>Linn., 202.

the Philippines meant that in the early 1900's it could take as long as three months for a garrison to report a serious engagement to its higher headquarters. By developing an operational framework that included improving information infrastructure as a component of the critical infrastructure line of operation, the military enhanced its ability to command and control its counterinsurgency campaign.

The military dramatically improved the communications infrastructure in the Philippines. By June of 1900, over 3,000 miles of cable were installed. By 1902, the amount of cable and telegraph wiring reached 10,000 miles. Unlike the measure of effectiveness for roads which was done only by distance the military did not focus on the miles of cable installed, instead the focus was on the amount of time it took to get a message from a remote garrison to the headquarters. In 1901, the chief signal officer reported that it took at least thirty days to deliver high priority messages throughout Luzon and nearly two months to reach some of the garrisons throughout the archipelago. As improvement in telegraph and cable infrastructure continued military headquarters were able to direct operations at remote garrisons because they were able to conduct daily communications.<sup>96</sup>

The measure of effectiveness of how long it takes to communicate with a remote garrison as a metric to evaluate improvement to the communications infrastructure was a good one. It was very meaningful to the commander to know if the information he was receiving was 60 days old. Knowing which garrison still took 30 to 60 days to reach also allowed the commander to focus communications infrastructure improvements to locations of concern. The measure of effectiveness was also linked to the strategic end state. The commander knew, as he was improving the timeliness of his communications, he was also improving the Filipino communications infrastructure, which strengthened the economy of the Philippines and improved the military's ability to provide a peaceful environment. The measure of effectiveness also had a

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<sup>96</sup>Ibid., 202.

strong relationship between cause and effect. By decreasing the amount of time it took to communicate with remote garrisons the commander was able obtain a better situational awareness and to influence the activity throughout the archipelago. The measure of effectiveness was also observable and precise. Although the ability to quantify the length of time to communicate with a remote garrison was effected when insurgents cut the wire or other technological glitches occurred, the measure of effectiveness of how long it took to communicate with a remote garrison was an adequate metric, and it contained the characteristics of a useful measure of effectiveness.

The promote governance line of operations contained several operational objectives. The military collected customs, set up courts run by natives, supervised municipal elections, conducted general administrative governmental functions, and gradually transferred the power from an occupying force to responsible institutions of self-governance.<sup>97</sup> Out of all these objectives, the focus will be on the objective of transferring control of each province from the jurisdiction of the Office of Military Government to the Second Philippine Commission and its corresponding measure of effectiveness, is the province pacified.

In June 1900, William Howard Taft arrived in the Philippines after President McKinley appointed him as the head of the Second Philippine Commission. His charter was to transition the Philippines from military control to civilian rule. According to the implementation of the policy, the control of each province was to transfer from the jurisdiction of the Office of Military Governor, under the control of MacArthur, to the Commission, under the control of Taft, once a province was pacified.<sup>98</sup> In order to determine if efforts were successful the metric used by the military was whether the province was pacified.

The biggest shortcoming of this measure of effectiveness was that it was not quantifiable. In addition, the metric was not precise because a clear definition for pacification was never

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<sup>97</sup>Tom Donnelly and Vance Serchuk. "U.S. Counterinsurgency in Iraq: Lessons from the Philippine War." *National Security Outlook*. Print Index No. 15955 (November 2003), 9.

<sup>98</sup>Deady, 58.

articulated. Arguments occurred between MacArthur and Taft on which provinces were pacified. Despite these shortcomings, the measure of effectiveness was meaningful to the commander. If a province was pacified, the commander could make a decision that would allow him to shift combat power to a more hostile region. If the province was not pacified, he could decide if additional action was required to achieve pacification or if it was just a matter of continuing the actions the military was already conducting. In addition to being meaningful, the strategic linkage was tied to the end state of the Philippines and the country's ability to eventually self-govern. The measure of effectiveness had a strong linkage between cause and effect. Once a province was pacified, the military could direct forces in that province to more hostile provinces. The measure of effectiveness could also be observed. However, the inability to quantify and precisely define pacification made the metric a bad tool to use as a measurement of success.

Measure of Effectiveness	Meaningful	Linked to strategic end state	Cause and effect	Observable	Quantifiable	Precise	Result
Which key leaders have been captured, killed, or surrendered	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate; Commander able to refocus forces, insurgency recruitment discouraged
What type of weapons and ammunition is the insurgents using	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate; insurgents lacked weapons and ammunition, commander could effectively set force protection criteria
Number of garrisons in operation	Not Adequate	Adequate	Adequate	Adequate	Adequate	Not Adequate	Not Adequate; did not allow commander to make decisions, was not related to success
Number of security forces	Not Adequate	Adequate	Not Adequate	Adequate	Adequate	Adequate	Not Adequate; did not account for capacity and capability of insurgents, commander could not make decisions
Length of time to communicate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate; commander understood communications challenges and made informed decisions about forces and resources
Is the province pacified	Adequate	Adequate	Adequate	Adequate	Not Adequate	Not Adequate	Not Adequate; Arguments occurred between military and State Department, terminology was never understood

**Figure 8:** Results of the Validation of Characteristics of Adequate Measures of Effectiveness in the Philippine American War<sup>99</sup>

<sup>99</sup>“Figure 8: Results of the Validation of Characteristics of Adequate Measures of Effectiveness in the Philippine American War” is offered as a visual aid to provide a summary of the analysis. It is evident

The Philippine American War provides an excellent historical counterinsurgency campaign, in which to examine measures of effectiveness. The environment was definitely complex and ambiguous. Although the insurgents made tactical and operational mistakes, the execution of the U.S. military enabled ultimate success.

Even though measures of effectiveness was not a term used in the early 1900's, historical analysis showed many indications of metrics being used to determine success. This allows the Philippine American war to be a suitable historical counterinsurgency effort to validate the characteristics of useful measures of effectiveness. Analysis of the counterinsurgency campaign showed that the effectiveness of a metric was related to its adherence to the characteristics of adequate measures of effectiveness. A measure of effectiveness that did not contain all of the characteristics of a good measure of effectiveness would diminish the ability of an operational level commander to arrange his forces and resources in time, space, and purpose to achieve his operational end state. In contrast, a measure of effectiveness that adhered to the characteristics of adequate measures of effectiveness proved to be a useful evaluation tool.

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that in instances where the measure of effectiveness was adequate it allowed the commander to make decisions. If the metric did not adhere to all of the characteristics of an adequate measure of effectiveness, it was not a useful tool, and it did not allow the commander to make decisions.

## CHAPTER 4: Contemporary Validation of the Characteristics of Adequate Measures of Effectiveness

Since Operation Iraqi Freedom began in 2003, the environment in Iraq has been ambiguous and complex. There are many opinions regarding exactly what the threat is in Iraq and how the United States should go about defeating that threat. Because the fight in Iraq is still in progress, it is difficult to interpret the events accurately. Despite the difficulty and risks involved in examining an ongoing counterinsurgency campaign, the benefit makes it a worthwhile endeavor. The counterinsurgency campaign provides an excellent opportunity to validate the characteristics of measures of effectiveness in a contemporary operating environment. Although the characteristics of adequate measures of effectiveness were validated in the examination of the Philippine American War, examining those same characteristics one hundred years later in an ongoing counterinsurgency campaign such as Operation Iraqi Freedom is just as important.

Despite the vast difference of opinions in how the United States and Coalition forces are attempting to defeat the threat in Iraq and what comprises the actual threat, it is possible and prudent to search for the facts and analyze the conflict in Iraq as a counterinsurgency campaign. During an interview with *Fox News Sunday* on June 26, 2005, the U.S. Secretary of Defense, Donald Rumsfeld, characterized the nature of the insurgency, and then he discussed the strategy to defeat the insurgency.

There are people all across the spectrum. There's the government, people who strongly support the government, people that are leaning and not quite sure what to do, people who are leaning the other way and not quite sure what to do, and then insurgents and people who oppose it, which is a mixture: There's the jihadists, there's the Zarqawi group, there are criminals, there's the Sunni Baathists who would like to take back the government. . . . We're going to create an environment that the Iraqi people and the Iraqi security forces can win against that insurgency.<sup>100</sup>

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<sup>100</sup>Donald Rumsfeld, "Rumsfeld on *Fox News Sunday*," interview by Chris Wallace, *Fox News Sunday* (Washington DC, June 26, 2005).

After further examining the nature of the Iraqi insurgency and prior to analyzing measures of effectiveness in Operation Iraqi Freedom, the operational framework must be understood. As in the examination of the counterinsurgency campaign in the Philippines, the strategic end state of the United States will also be outlined. Only by following this technique, is it possible to understand the operational framework. This detailed background study will make it possible to analyze the metrics used by the counterinsurgency effort in Iraq to validate the characteristics of measures of effectiveness in a current counterinsurgency campaign.

The insurgency in Iraq has evolved since President George Bush declared the end of major combat on May 1, 2003. Originally, it was thought there were three primary insurgency groups. One insurgency group was made up of the remnants of the Ba'athist party and was dominated by Sunni Muslim Arabs. Another group consisted of the Iraqi Shi'ite Muslims, which was dominated by Muqtadah Al Sadr and his Mahdi Militia. The last group was foreign insurgents, which were typically referred to as terrorists. This group was mostly made up of radical Islamist elements.<sup>101</sup>

As the Shi'a majority continued to make political gains in the emerging government, Al Sadr moved away from violence and toward political power, which changed the composition of the insurgency. Now the insurgency is viewed as a combination of rejectionists, Saddamists, and terrorists associated or inspired by Al Qaida. In addition to these groups, other elements threaten success in Iraq, including criminals and Shi'a religious extremists. Although these groups share a common opposition to the elected Iraqi government and to the presence of U.S. and Coalition forces, the commonality ends there. There is currently no unifying ideology as each of these groups have separate and to some extent incompatible goals.<sup>102</sup>

Of the three main insurgent groups, rejectionists are the largest. Mostly comprised of Sunni Arabs, the rejectionists have refused to accept Iraq as a democratically governed state.

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<sup>101</sup>Krepinevich, 2.

<sup>102</sup>*National Strategy for Victory in Iraq*, 6.

They are clinging to the status quo that existed under Saddam Hussein in which they were considered the privileged elite. If the nascent Iraqi government protects minority rights and the legitimate interests of all communities, the U.S. National Security Council assesses that the rejectionists will increasingly support a democratic Iraq.<sup>103</sup>

Another insurgent group is classified as the Saddamists. This insurgent group consists of Saddamists and former regime loyalists that want to reestablish a Ba'ath dictatorship. The Saddamists have played the lead role in promoting the growth of sentiment against the new government and U.S. and Coalition forces. The U.S. National Security Council assesses that few from the Saddamists will ever support a democratic Iraq. However, the National Security Council does assess it is possible to marginalize the Saddamists to a point that the group can eventually be defeated by Iraqi forces.<sup>104</sup>

The final insurgent group is the terrorists associated or inspired by Al Qaida. Although the terrorists constitute the smallest group, they are the most lethal and pose the immediate threat. Terrorists pose two immediate challenges. The first is that they are responsible for the most dramatic atrocities. These staged events are responsible for killing the most people and serve as a recruiting instrument for increased terrorism. Additionally, the terrorists follow the extreme goals of Usama Bin Laden. Al Qaida's intent is to create enough chaos in Iraq to make it a safe haven for the organization to launch attacks throughout the world.<sup>105</sup> These goals make the counterinsurgency campaign in Iraq, the central front of the Global War on Terror.<sup>106</sup> The U.S. National Security Council assesses the terrorist group in Iraq will never accept a democratic Iraq and must be defeated through sustained combat operations.<sup>107</sup>

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<sup>103</sup>Ibid., 6.

<sup>104</sup>Ibid., 6.

<sup>105</sup>Ibid., 6.

<sup>106</sup>Ibid., 1.

<sup>107</sup>Ibid., 6.

Overall, the insurgency is primarily a Sunni Arab phenomenon. The insurgency in Iraq is not a national movement and has only been able to maintain a narrow base of popular support. Although the insurgency does not have a unifying ideology, it has shown the ability to adapt and to regenerate personnel. The insurgency has not shown the ability to offer any of the necessary improvements in economics or infrastructure that could foment a national movement. Despite these shortcomings, the insurgency has an ample supply of resources as a result of the conditions that existed after a long dictatorship that was filled with military violence. Another strength of the insurgency is that it operates in a cellular manner that does not have a traditional hierarchal structure. The majority of the insurgent groups are connected through members belonging to social networks. The social networks can be based on familial, tribal, religious, or former professional associations.<sup>108</sup>

After analyzing the nature of the insurgency in Iraq, the next step is to examine the U.S. strategic end state. On March 19, 2003, President Bush addressed the nation from the Oval Office. In the address, he outlined the initial end state of Operation Iraqi Freedom. He described the military operation as an action, “to disarm Iraq, to free its people and to defend the world from grave danger.”<sup>109</sup> He also declared the operation would “help[ing] Iraqis achieve a united, stable and free country...”<sup>110</sup> President Bush also made it clear, “We have no ambition in Iraq, except to remove a threat and restore control of that country to its own people.”<sup>111</sup>

As the operation continued, the strategy evolved to correspond to the situation. The realization of an insurgency threat that comprised a terrorist element forced some changes in the American strategy. In a speech to the Nation from Fort Bragg North Carolina, on June 28, 2005 the president commented on the refined strategy:

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<sup>108</sup>U.S. Congress. *Measuring Stability in Iraq*. October 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 4.

<sup>109</sup>U.S. President. Address to the Nation. “President Bush Addresses the Nation” Office of the Press Secretary. March 19, 2003.

<sup>110</sup>Ibid.

<sup>111</sup>Ibid.

Our mission in Iraq is clear. . . . The principal task of our military is to find and defeat the terrorists, and that is why we are on the offense. And as we pursue the terrorists, our military is helping to train Iraqi security forces so that they can defend their people and fight the enemy on their own. Our strategy can be summed up this way: As the Iraqis stand up, we will stand down.<sup>112</sup>

In this address to the Nation, the President declared the principal military task of finding and defeating the terrorists as well as the military task of training the Iraqi Security Forces to a level in which they could defeat the enemy without U.S. and Coalition assistance.

As the American leadership began to accept the protracted nature of counterinsurgency operations and realized the campaign would take considerable time, the National Security Council published a *National Strategy for Victory in Iraq*. The strategy declared that victory in Iraq would occur in stages. The strategy acknowledged that counterinsurgency operations are protracted struggles that require time and a focused unity. In the short term, the goals are to make progress in fighting terrorists, continue to build democratic institutions, meet the political milestones, and create security forces.<sup>113</sup> The mid-term goals are to place Iraq in a position to assume the lead in defeating terrorists and providing its own security, Iraq has a fully constitutional government in place, and the country is advancing toward reaching its economic potential.<sup>114</sup> The long-term goals and the strategic end state is that, “Iraq is peaceful, united, stable, and secure, well integrated into the international community, and a full partner in the global war on terrorism.”<sup>115</sup>

By publishing a *National Security Strategy for Victory in Iraq*, the National Security Council has clarified the strategic end state for Iraq. Likewise, as the insurgency has evolved in Iraq, the commanders of U.S. and Coalition forces have been afforded the opportunity to gain intelligence and experience that has enabled them to enhance the development of their operational framework. Each campaign plan will be different, depending on the situation within a

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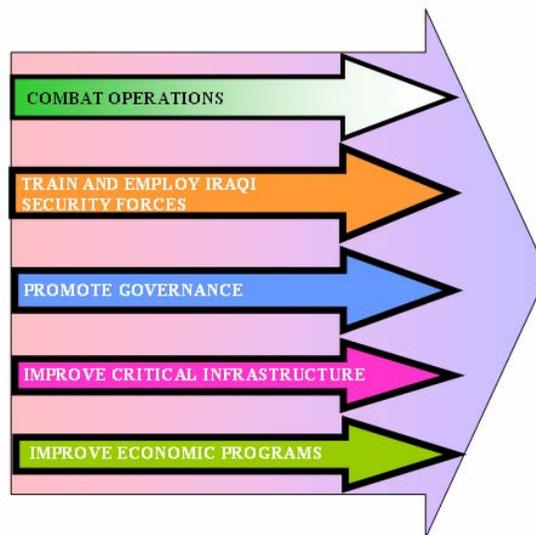
<sup>112</sup>U.S. President. Address to the Nation. “President Addresses Nation, Discusses Iraq, War on Terror.” Office of the Press Secretary. June 28, 2005.

<sup>113</sup>*National Strategy for Victory in Iraq*, 1.

<sup>114</sup>*Ibid.*, 1.

<sup>115</sup>*Ibid.*, 1.

commander's area of operations. However, the logical lines of operations that were developed as a framework to defeat a typical insurgency will also work in Iraq. The military tasks outlined by President Bush clearly show a need for a logical line of operations focused on combat operations and another one focused on training and improving Iraqi Security Forces. The National Security Council's strategy for victory in Iraq also makes it evident that logical lines of operations are needed for promoting governance and improving economic programs. The final logical line of operations that will be examined is improving critical infrastructure. Based on the insurgency and the strategic end state the following logical lines of operations will be used to analyze measures of effectiveness in Iraq: combat operations, train and employ Iraqi Security Forces, improve critical infrastructure, promote governance, and improve economic programs.



**Figure 9:** Logical Lines of Operations for Operation Iraqi Freedom<sup>116</sup>

This model for operational design closely fits the logical lines of operations adopted by MG Chiarelli as he led the Task Force Baghdad in counterinsurgency operations in Baghdad from April 2004 to February 2005. The lines of operations in his operational framework were; combat

<sup>116</sup>“Figure 9: Logical Lines of Operations for Operation Iraqi Freedom” is a graphical depiction of the logical lines of operations used to analyze measures of effectiveness. The logical lines of operations were developed using the preceding text concerning the operational environment that exists in Iraq.

operations, train and employ Iraqi Security Forces, restoration/improvement of essential services, promote governance, and economic pluralism.<sup>117</sup>

With a better understanding of the insurgency in Iraq, the strategic end state as outlined by the National Security Council, and the logical lines of operations that form an operational framework it is possible to analyze the measures of effectiveness being used in Operation Iraqi Freedom. Although there are numerous metrics being used in Iraq, the focus will be to analyze metrics that are readily available in unclassified venues.

The logical line of operations dealing with combat operations will be examined first. The first measure of effectiveness is the number of actionable tips received by U.S. and Coalition forces. This metric is linked to the strategic end state of defeating the insurgency and providing a secure environment. Operational objectives include clear areas of enemy control and reduce the influence and effectiveness of insurgents. The measure of effectiveness is linked to the strategic end state. The fact the military is tracking actionable tips and not just tips enable the measure to be meaningful and precise. An actionable tip is identified as one that provides information that leads to successful operations such as capturing a cache or individual. An increased number of actionable tips reflect that the populace is not afraid of retribution due to a volatile security environment. It also shows that the insurgents do not have the support of the populace. These factors show a strong relationship between cause and effect. The metric is also observable and quantifiable. Precision is represented by tracking actionable tips and not just tips.

The latest report to Congress stated, “A significant factor enabling progress against the insurgency is the dramatic increase in intelligence tips received from the population in the past several months, indicative of increasing popular rejection for the insurgents.”<sup>118</sup> The metric, concerning the number of actionable tips, which is a metric currently being used in Iraq, contains the characteristics of a good measure of effectiveness and is a useful tool.

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<sup>117</sup>Chiarelli and Michaelis, 14.

<sup>118</sup>U.S. Congress. *Measuring Stability in Iraq*. October 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 19.

The last measure of effectiveness that will be examined along the combat operations logical line of operations is the number of contacts initiated by Coalition forces as opposed to those initiated by the enemy. The operational objective aligned with this metric is to clear the area of operations of enemy control. This is linked to the strategic end state of defeating the insurgency and providing a secure environment.

The metric provides meaning to the operational commander because it is an evaluation of initiative, which is one of the tenets of army operations. “From the operational perspective, initiative is setting or dictating the terms of action throughout the battle or operation.”<sup>119</sup> Initiative compels the enemy to conform to your operational purpose while allowing freedom of action for the friendly forces. Knowing the status of initiative is very meaningful to an operational commander in a counterinsurgency campaign. The metric of the number of contacts initiated by Coalition forces as opposed to those initiated by the enemy has a strong relationship between cause and effect. In a counterinsurgency campaign, the required level of force protection will be dependent on the friendly forces freedom of action. If the insurgency is initiating a higher number of attacks, it will cause the operational commander to focus more force structure and resources to force protection.

Although this metric is quantifiable, in some instances it is difficult to observe insurgents in a discernable manner. It is also challenging to ensure precision. In Iraq, it is not always possible to observe who initiated an attack because of the hit and run tactics the insurgents and other threats employ. As discussed earlier some threats, such as criminals, are not considered part of the insurgency. For this reason, not every attack against United States and Coalition forces is observed with enough clarity to distinguish who initiated the attack. Another challenge is precision. As in the case of the term key leader, the term insurgent must be sharply defined to ensure precision. Initially, Al Sadr was considered the leader of a Shi’a led insurgency and was

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<sup>119</sup>FM 3-0, 4-15.

wanted for murder on an Iraqi issued warrant. Since then, Al Sadr has joined the political process as a legitimate leader. An evolving insurgency makes it difficult to ensure precision. The challenges of observation and precision reduce the effectiveness of this metric. Although it is an indicator of initiative, the number of contacts initiated by Coalition forces as opposed to those initiated by the enemy does not adequately adhere to the characteristics of a good measure of effectiveness, and it cannot enable the commander to make decisions and is not considered a useful evaluation tool.

The next line of operations is train and employ Iraqi Security Forces. Two measures of effectiveness will be examined along this logical line of operations. The first metric is the number of Iraqi Security Forces. A strategic end state for Iraq is that it is capable of providing its own security. The corresponding operational objective is to create an Iraqi Security Force of 326,000 personnel with the Ministry of Defense component consisting of 131,000 soldiers and a Ministry of Interior component consisting of 195,000 personnel.<sup>120</sup> Although this metric is linked to the strategic end state, it is not an adequate measure of effectiveness because it lacks meaning and was not precise. In April 2004, the Department of Defense estimated 206,000 Iraqi Security forces were in place.<sup>121</sup> The number was based on the number of personnel on the payroll and included administration officials. After reviewing the number of personnel prepared to fight, the Department of Defense revised the number to 132,000 Iraqi Security Forces.<sup>122</sup> Because there was not a sharp definition of what constituted an Iraqi Security Force personnel, the numbers fluctuated dramatically. In addition to lacking precision there was not a qualitative assessment that indicated the level of training. The commander was not able to make a decision regarding his force structure and resources based solely on the number of Iraqi Security Forces. This meant the

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<sup>120</sup> U.S. Congress. *Measuring Stability in Iraq*. October 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 31, 37.

<sup>121</sup> Peter Grier. "Iraqi Troop Training: Signs of Progress." *The Christian Science Monitor*. March 29, 2005 [document online]; available from <http://www.scmonitor/2005/0329/p01s02-woiq.html>, Internet, accessed January 17, 2006.

<sup>122</sup> *Ibid.*

metric also lacked meaning. As a metric, the number of Iraqi Security Forces is not a useful evaluation tool and does not allow the commander to make decisions.

The last measure of effectiveness that will be examined along the train and employ Iraqi Security Forces logical line of operations is the percentage of battle space the Iraqi Security Force is responsible for. It is directly linked to the strategic end state of helping Iraq to provide its own security. The operational objective for this metric is to transfer the responsibility of security to the Iraqi Security Forces. As the U.S. and Coalition forces are able to transition battle space to Iraqi Security Forces, operational commanders can reallocate their force structure and resources. In June 2004, Iraqi Security Forces did not have responsibility for any territory.<sup>123</sup> By October 2005, Iraqi units were in control of over 500 square miles of territory.<sup>124</sup> This means Iraqi Security Forces are responsible for providing security to some provinces in Iraq, most of Baghdad, and the cities of Najaf and Karbala. There is a strong relationship between cause and effect. The successes in these areas result in a population that is gaining confidence in the ability of their government to provide security. The metric is observable, quantifiable, and precise. In the event an Iraqi unit is not capable of securing a region, the percentage can be adjusted accordingly. The percentage of battle space the Iraqi Security Force is responsible for contains all of the characteristics of a good measure of effectiveness and is used as a metric in required briefings to Congress.

The next line of operations is to improve critical infrastructure. The measure of effectiveness that will be examined is number of cell phone subscribers. Prior to the removal of Saddam, the Iraqi telecommunications network was one of the most undeveloped in the Middle East with only about one million land lines for 26 million people and no mobile-phone networks. In an attempt to catch up with technology, Iraq had moved straight to an advanced wireless phone

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<sup>123</sup>U.S. Congress. *Measuring Stability in Iraq*. July 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 8.

<sup>124</sup>U.S. Congress. *Measuring Stability in Iraq*. October 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 4.

system.<sup>125</sup> In order to achieve the strategic end state of having Iraq on its way to achieving economic potential and be well integrated into the international community, a strong telecommunications network is critical. Imagine the impact of the U.S. government trying to conduct daily operations if only 35 government sites were connected by the internet. The operational objective is to restore Iraq's telecommunications structure. The measure of effectiveness is linked to the strategic end state. It is also observable, quantifiable, and precise. Because the insurgents are also dependent on the telecommunications infrastructure, they have not attacked critical nodes. This prevents problems with precision that would result from a number of subscribers lacking connectivity due to insurgent actions.

The inadequacies of this metric occur with the characteristics of strong relationship between cause and effect and meaning. An increased number of cell phone subscribers results in an increased number of Iraqis able to conduct business, which improves the economic viability of the region. However, the extent of the effect of adding each additional cell phone subscriber to the telecommunications network is not clear. It is also not clear to what extent the cell phone network is helping insurgent activity. Besides the problems with cause and effect, the metric does not provide enough meaning to an operational commander. Without additional information, such as the projected number of growth in cell phone subscribers, or percentage of households with cell phone capability, the metric does not allow the commander to make decisions. Although the telecommunications network is a critical infrastructure that needs to be improved, using the number of cell phone subscribers is a poor measure of effectiveness. The metric does not contain the characteristics of an adequate measure of effectiveness.

The next line of operations is to promote governance. The measure of effectiveness that will be examined is the ability to stay on the timeline of the proscribed political process. The

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<sup>125</sup>Arshad Mohammed. "Iraqi Telecom Chief Seeks to Build From Scratch." The Washington Post. January 14, 2006. [document online]; available from [http://www.washingtonpost.com/wpdyn/content/article/2006/01/13/AR2006011301747\\_pf.html](http://www.washingtonpost.com/wpdyn/content/article/2006/01/13/AR2006011301747_pf.html), Internet, accessed on January 17, 2006.

strategic end state of Iraq includes building the nation as a democratic government capable of providing self-governance. The operational objective is to prevent the insurgents from disrupting the proscribed timeline. The measure of effectiveness is linked to the strategic end state. It is considered a key metric in mandated reports to Congress. “One key measure of progress towards the establishment of a constitutional and democratic government in Iraq is the timeline and political process set forth in the Transitional Administrative Law of March 2004 and the United Nations Security Council Resolution 1564 of June 2004.”<sup>126</sup> The metric has a strong relationship between cause and effect. The ability to stay on the timeline provides momentum against the insurgency and indicates to the population that the efforts to build a constitutional government will succeed.<sup>127</sup> The metric is observable, quantifiable, and precise. The shortcoming of the metric exists in the characteristic of meaning. In the event a political benchmark was not met on time, that information did not provide the commander with the ability to make a decision. The measure of effectiveness concerning the ability to stay on the timeline of proscribed political processes did not meet the characteristics of a good measure of effectiveness. As a measurement tool, the metric is not useful to the operational commander.

The final line of operations that will be examined is to improve economic programs. The measure of effectiveness that will be examined is the number of new business registrations. This metric is linked to the strategic end state of building a stable, peaceful Iraq that is on its way to achieving its economic potential. The operational objective is to promote new businesses. Since April 2003, over 30,000 new businesses have registered with the Ministry of Trade.<sup>128</sup> The measure is observable, quantifiable, and has a strong cause and effect relationship within a region. The metric does not meet the characteristics of being meaningful and it is not precise. Simply tracking the number of new business within a region does not provide any information to

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<sup>126</sup>U.S. Congress. *Measuring Stability in Iraq*. October 2005. 109<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 2005: 5

<sup>127</sup>*National Strategy for Victory in Iraq*, 15.

<sup>128</sup>*Ibid.*, 12.

a commander that would allow him to make a decision. In addition, there is no mention of the capability or capacity of the business. Although 30,000 businesses have registered, there is no indication of how many businesses actually started. There is also no guarantee that once started, the business remained operational. The measure of effectiveness number of new business registrations lacks meaning and precision. It does not contain the characteristics of an adequate measure of effectiveness and is not a good evaluation tool for the operational commander to determine the success of his efforts to promote new businesses.

Measure of Effectiveness	Meaningful	Linked to strategic end state	Cause and effect	Observable	Quantifiable	Precise	Result
Number of actionable tips received	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate; populace supporting Coalition and Iraqi government, commander able to focus forces and resources
Number of contacts initiated by Coalition forces as opposed to enemy	Adequate	Adequate	Adequate	Adequate	Not Adequate	Not Adequate	Not Adequate; commander gets sense of progress but cannot make a decision
Number of Iraqi Security Forces	Not Adequate	Adequate	Adequate	Adequate	Adequate	Not Adequate	Not Adequate; precision never clarified, number of security forces did not inform commander's decisions
Percentage of battle space Iraqi Security Force is responsible for	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate; commander able to change time, space, and purpose of forces and resources
Number of cell phone subscribers	Not Adequate	Adequate	Not Adequate	Adequate	Adequate	Adequate	Not Adequate; no meaning, cause and effect did not result in decision
Timeliness of political process	Not Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	Not Adequate; information did not inform commander's ability to make decisions
Number of businesses registered	Not Adequate	Adequate	Adequate	Adequate	Adequate	Not Adequate	Not Adequate; lack of meaning, commander required additional information

**Figure 10:** Results of the Validation of Characteristics of Adequate Measures of Effectiveness in Operation Iraqi Freedom<sup>129</sup>

Although there are problems incumbent in using an ongoing counterinsurgency campaign such as Operation Iraqi Freedom to analyze a new theory, it is not only possible but also a prudent endeavor. In Iraq, the counterinsurgency campaign has matured to the point where it is

<sup>129</sup>“Figure 10: Results of the Validation of Characteristics of Adequate Measures of Effectiveness in Operation Iraqi Freedom” is offered as a visual aid to provide a summary of the analysis. It is evident that in instances where the measure of effectiveness was adequate it allowed the commander to make decisions. If the metric did not adhere to all of the characteristics of an adequate measure of effectiveness, it was not a useful tool, and it did not allow the commander to make decisions.

possible to characterize the insurgents. In addition, the maturity of the campaign also makes it possible to design a campaign framework that is based on a published National Security Strategy. In Iraq, commanders are designing operational frameworks along logical lines of operations. The situation makes it an excellent environment to validate the theory that adequate measures of effectiveness must contain certain characteristics. In addition to containing the characteristics of a good measure of effectiveness, the additional attribute of constantly being correlated to match the changes in the environment is important. In the instances examined where a metric being used in Iraq contained all of the characteristics of an adequate measure of effectiveness such as the percentage of battle space the Iraqi Security Forces are being responsible for, it was proven to be an adequate measurement of success. In instances where the metric did not contain the characteristics of a good measure of effectiveness such as the number of cell phone subscribers, it was determined the measure was not a useful tool, and it did not allow the commander to make decisions.

## CHAPTER 5: Conclusion: Validated Characteristics of Adequate Measures of Effectiveness

In a Department of Defense news briefing on June 27, 2005, General George W. Casey, Jr., the Commanding General of Multi-National Force Iraq discussed the development of metrics within his command.

[W]e ought not all get focused just on the attacks as a measure of success in Iraq. In fact, we have been developing counterinsurgency metrics, where we look at a range of different variables. . . . [T]here is a range of things that must be looked at so we can get some sense of how we're really doing. . . . And we went through all the different lines of operations. And we -- the conclusion of the staff was that we remain broadly on track to accomplish our strategic objectives<sup>130</sup>.

Although Iraq is the central front on the Global War on Terrorism it is not the only threat. The most recent National Defense Strategy described terrorism and insurgency as an increasing threat to the security interests of the United States.<sup>131</sup> As this threat increases, it is important to focus our military effort to counter this threat. An integral component of this focus needs to be on measures of effectiveness. Currently, the Army does not have a doctrinal method that describes the use of measures of effectiveness. However, it is possible to develop measures of effectiveness than an operational commander could use as an adequate tool to evaluate the success of his counterinsurgency campaign. By using measure of effectiveness as a tool that links the logical lines of operations to the operational objectives and eventually to the strategic end state, it could provide the operational commander an effective technique to husband his valuable resources, inform policy makers, and most importantly determine if the execution of his strategy is resulting in success.

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<sup>130</sup>George Casey, General USA, Commander United States Multi-National Forces - Iraq. "Department of Defense News Briefing." Department of Defenses NewsLink. [document online], available from <http://www.defenselink.mil/transcripts/2005/tr20050627-secdef3161.html>, Internet, accessed on January 17, 2006.

<sup>131</sup>Department of Defense. *The National Defense Strategy of the United States of America*. Washington D.C.: Government Printing Office. March 2005. Donald H. Rumsfeld: 3.

Despite being a complex and ambiguous phenomenon, an insurgency does contain common characteristics.<sup>132</sup> This makes it possible to understand an insurgency using a general framework. The understanding of the general framework is the basis for the development of logical lines of operations that can be used in an operational framework of a counterinsurgency campaign. Although each counterinsurgency will require different logical lines of operations, they will generally follow the model of; combat operations, train and employ host nations security forces, promote governance, improve critical infrastructure, and improve economic programs.

The first step in making measures of effectiveness a worthwhile analytical tool is to provide focus to the meaning of the term. In order to be a useful evaluation method to the operational commander, a measure of effectiveness must have the following characteristics; it must be meaningful, it must be linked to the strategic end state, it must have a strong relationship between cause and effect, it must be quantifiable, and it must be precise. If a measure of effectiveness adheres to these characteristics it will be a valuable evaluation tool. A good measure of effectiveness will improve the commander's ability to proficiently arrange his available forces and resources in time, space, and purpose to achieve his operational end state.

To develop effective measures of effectiveness a counterinsurgency must understand the country's society, culture, habits, personality, governance, and religion. Without an understanding of this information, it is difficult to understand the second order, third order, and hidden effects that each action of the counterinsurgency will have on the environment and its surroundings.

In addition to the characteristics, there is also an attribute that must be considered to ensure that a measure of effectiveness is an effective tool. The measure of effectiveness must be correlated to the progress of the operation to attain timeliness. As the environment changes metrics must be reviewed to ensure they still meet the characteristics of a good measure of

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<sup>132</sup>O'Neill, 160.

effectiveness. It is also important that planners allocate the required force structure and resources to ensure the information required to obtain measures of effectiveness data is properly tasked.

Although the term measure of effectiveness was not a term used in the military in the early 1900's, historical analysis established that the concept of metrics was in existence during the Philippine American War. Analyzing the operational framework of the counterinsurgency campaign that occurred in the Philippines along logical lines of operations validated the theory that a measure of effectiveness can be a useful evaluation tool for an operational commander if it contains all of the characteristics of a good measure of effectiveness. When a metric does not contain all of those characteristics, such as the measure of effectiveness the number of garrisons in operations, the metric loses its ability to provide the commander the information necessary to make decisions regarding the arrangement of force structure and resources.

The characteristics outlined for developing good measures of effectiveness are not just valid in historical counterinsurgency campaigns. By analyzing Operation Iraqi Freedom, it was possible to validate the characteristics of measures of effectiveness in an ongoing counterinsurgency campaign. Just as was the case in the Philippine American War, if a metric did not contain the characteristics of a good measure of effectiveness, such as the number of Iraqi Security Forces, which lacked the characteristics of meaning and precision, it was not a meaningful evaluation tool. In contrast, a metric that did contain all of the characteristics of a good measure of effectiveness, such as the percentage of battle space the Iraqi Security Force is responsible for, was proven an adequate evaluation tool for the commander.

As the threat of insurgency and terrorism to the United States increases, the need to understand the concept of using metrics to evaluate success during counterinsurgency operations is more important. Properly designed, measures of effectiveness can be useful analytical tools to assess the success of counterinsurgency operations that are using an operational framework that is designed along logical lines of operations and that is linked to the strategic end state. If metrics are constructed to adhere to the characteristics of a good measure of effectiveness and are

correlated with changes in the environment, they will provide the operational commander with the information he requires to be able to properly direct his forces and resources in time, space, and purpose to achieve his operational end state successfully.

## BIBLIOGRAPHY

### BOOKS

- Beckett, Ian F.W. *Modern Insurgencies and Counter-Insurgencies: Guerrillas and their Opponents since 1750*. New York, NY: Routledge, 2001.
- Boot, Max. *The Savage Wars of Peace: Small Wars and the Rise of American Power*. New York, NY: Perseus Books Group, 2002.
- Darilek, Richard. *Measures of Effectiveness for the Information-Age Army*. Santa Monica, CA: RAND, 2001.
- Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, CT: Greenwood Press, 1964.
- Landman, Todd. *Issues and Methods in Comparative Politics*. New York, NY.: Routledge, 2003.
- Linn, Brian McAllister. *The Philippine War 1899-1902*. Lawrence, KS, University Press of Kansas, 2000.
- Millet, Allan R., and Peter Maslowski. *For the Common Defense: A Military History of the United States of America*. New York, NY: The Free Press, 1984.
- Nagl, John A. *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife*. Chicago, IL, University of Chicago Press, 2005.
- O'Neill, Bard E. *Insurgency and Terrorism: Inside Modern Revolutionary Warfare*. Dulles, VA: Brassey's Incorporated, 1990.
- Tse-Tung Mao. *Selected Writings of Mao Tse-Tung*. reprinted in US Army Command and General Staff College, A699 *The Evolution of Military Thought*. Fort Leavenworth, KS: USACGSC, December, 1990.
- Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations. 6th ed.* Chicago, IL: University of Chicago Press, 1996.

### PERIODICALS

- Ballard, Chris. "Measure of Success." *Sports Illustrated*, vol . 103, No. 16 (2005): 78-83.
- Chiarelli, Peter W., Major General USA and Michaelis, Patrick R., Major USA. "Winning the Peace: The Requirement for Full-Spectrum Operations." *Military Review* vol. 85, No. 4 (July-August 2005): 4-17.
- Deady, Timothy K. "Lessons from a Successful Counterinsurgency: The Philippines, 1898-1902." *Parameters*, vol. 35. No. 1 (spring 2005): 57-70.
- Donnelly, Tom and Serchuk, Vance. "U.S. Counterinsurgency in Iraq: Lessons from the Philippine War." *National Security Outlook*. Print Index No. 15955 (November 2003), 1-7.
- Murray, William S. "A Will to Measure," *Parameters*. vol. 31, no. 3 (Autumn 2001): 134-147.

## GOVERNMENT SOURCES

- Metz, Steven and Millen, Raymond. *Insurgency and Counterinsurgency in the 21st Century: Reconceptualizing Threat and Response*. Carlisle Barracks, PA: Strategic Studies Institute, 2004.
- National Security Council. *National Strategy for Victory in Iraq*. Washington D.C.: Government Printing Office. November 2005.
- U.S. Congress. Committee on Armed Services. *Are We Winning in Iraq*. March 17, 2005. Report prepared by Andrew F. Krepinevich. 109th Cong., 1st sess., 2005.
- U.S. Congress. House. *Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief Act*. 109th Cong., 1st sess., 2005. H.R. 2813.
- U.S. Congress. *Measuring Stability and Security in Iraq*. July 2005. 109th Cong., 2nd sess., 2005.
- U.S. Congress. *Measuring Stability and Security in Iraq*. October 2005. 109th Cong., 2nd sess., 2005.
- U.S. Department of Defense. "Global War On Terror" Memorandum. October 16, 2003. Donald H. Rumsfeld.
- U.S. Department of Defense. *The National Defense Strategy of the United States of America*. Washington D.C.: Government Printing Office. March 2005. Donald H. Rumsfeld
- U.S. President. Address to the Nation. "President Bush Addresses the Nation" Office of the Press Secretary. March 19, 2003
- U.S. President. Address to the Nation. "President Addresses Nation, Discusses Iraq, War on Terror." Office of the Press Secretary. June 28, 2005.
- U.S. President. *The National Security Strategy of the United States of America*. Washington D.C.: Government Printing Office. January 1988. Ronald Reagan: 34.

## MILITARY PUBLICATIONS

- Department of Defense. Joint Publication 1-02, *Dictionary of Military and Associated Terms*. Washington, DC: Government Printing Office. April 2001.
- U.S. Department of the Army. Field Manual 3-0, *Operations*. Washington, DC: Government Printing Office. June 2001.
- U.S. Department of the Army. Field Manual 3-07, *Stability and Support Operations*. Washington, DC: Government Printing Office. February 2003.
- U.S. Department of the Army. Field Manual 3-07.22, *Counterinsurgency*. Washington, DC: Government Printing Office. October 2004.
- U.S. Department of the Army. Field Manual 100-20, *Military Operations in Low-Intensity Conflict*. Washington, DC: Government Printing Office. December 1990.

## INTERNET AND OTHER SOURCES

- Casey, George, General USA, "Department of Defense News Briefing." Department of Defense NewsLink. [document online], available from <http://www.defenselink.mil/transcripts/2005/tr20050627-secdef3161.html>, Internet, accessed on January 17, 2006.

- The George Washington Papers at the Library of Congress, 1745-1799 [documents online]; available from <http://www.memory.loc.gov/ammem/gwhtml/gwhome.html>.; Internet; accessed on October 10, 2005.
- Grier, Peter. "Iraqi Troop Training: Signs of Progress." The Christian Science Monitor. March 29, 2005 [document online]; available from <http://www.scmonitor.com/2005/0329/p01s02-woiq.html>, Internet, accessed January 17, 2006.
- McKinley, William. "Benevolent Assimilation Proclamation." dated December 21, 1898 [document online]; available from <http://www.msc.edu.ph/centennial/benevolent.html>; Internet, accessed on December 30, 2005.
- Mohammed Arshad. "Iraqi Telecom Chief Seeks to Build From Scratch." The Washington Post. January 14, 2006. [document online]; available from [http://www.washingtonpost.com/wp-dyn/content/article/2006/01/13/AR2006011301747\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2006/01/13/AR2006011301747_pf.html), Internet, accessed on January 17, 2006.
- Rumsfeld, Donald, "Rumsfeld on Fox News Sunday," interview by Chris Wallace, Fox News Sunday. Washington DC. June 26, 2005.
- The Washington Institute for Near East Peace. "Assessing the Iraqi Insurgency (Part I): Problems and Approaches." [Online] Available <http://www.washingtoninstitute.org/templateC05.php?CID=2282>, Internet; Accessed on October 21, 2005.