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**NAVAL
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THESIS

**INSTITUTIONAL CHALLENGES TO DEVELOPING
METRICS OF SUCCESS IN IRREGULAR WARFARE**

by

John Bleigh
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December 2011

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ABSTRACT

In irregular warfare (IW) conflicts, where winning the support of the population is often key, the United States military historically has demonstrated consistent difficulty in developing metrics that describe the effectiveness of its operations. We identify previously neglected aspects of the problem. More specifically, we argue that the institutional pressures generated by a conflict's national imperative, when combined with the military's own bureaucratic characteristics, cause the military organization to focus on inappropriate measurements. This causes it to misinterpret the IW environment and therefore misjudge its operational effectiveness. Thus, the search for useful metrics of success in IW must seek to overcome not only the difficulties inherent to measuring IW, but endemic organizational characteristics of the U.S. military; understanding this heretofore neglected interactive effect is crucial to understanding the nature of the metrics problem in irregular warfare campaigns. We develop our argument and illustrate it using historical cases of U.S. IW campaigns.

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	PURPOSE.....	1
B.	BACKGROUND.....	1
C.	LITERATURE REVIEW.....	2
D.	RESEARCH GOAL.....	5
II.	THE METRICS DEVELOPMENT PROCESS.....	7
A.	INTRODUCTION.....	7
B.	NODE 1: NATIONAL IMPERATIVE.....	9
C.	NODE 2: THE U.S. MILITARY ORGANIZATION AND FORCE PACKAGE SELECTION.....	12
1.	Organizational Forms and Implications.....	13
2.	The U.S. Military’s Organization.....	17
3.	Organizational Variation in Force Package Selection.....	19
4.	Operationalizing Organizational Types.....	20
D.	NODE 3: THE NATURE OF METRICS.....	21
1.	Defining Metrics.....	21
2.	Quantitative vs. Qualitative.....	22
3.	Agent Activity vs. Outcomes.....	23
4.	Metrics Typology.....	25
5.	Implications and Organizational Preferences.....	25
E.	NODE 4: APPROPRIATE AND INAPPROPRIATE METRICS FOR IW.....	28
F.	METHODOLOGY.....	32
1.	Historical Narrative.....	33
2.	Historical Context.....	34
3.	National Imperative.....	34
4.	Military Organization.....	34
5.	Nature of Metrics.....	34
6.	Appropriate/Inappropriate Metrics in IW.....	35
III.	THE GREEK CIVIL WAR.....	37
A.	HISTORICAL NARRATIVE.....	37
B.	HISTORICAL CONTEXT.....	42
C.	NATIONAL IMPERATIVE.....	44
D.	U.S. MILITARY ORGANIZATION IN THE GREEK CIVIL WAR.....	46
E.	THE NATURE OF METRICS.....	48
F.	APPROPRIATE/INAPPROPRIATE METRICS IN THE GREEK CIVIL WAR.....	50
G.	CONCLUSION.....	51
IV.	U.S. INVOLVEMENT IN VIETNAM 1965–1968.....	53
A.	HISTORICAL NARRATIVE.....	54

1.	Phase I – Early Advisory Years, 1950–1955	54
2.	Phase II – Advisory Years, 1955–1964	55
3.	Phase III – America’s Full Commitment, 1965–1968.....	57
4.	Phase IV – Vietnamization and American Withdrawal, 1969– 1973.....	58
B.	HISTORICAL CONTEXT	59
C.	NATIONAL IMPERATIVE	62
D.	THE U.S. MILITARY ORGANIZATION IN VIETNAM	65
E.	THE NATURE OF METRICS	67
F.	APPROPRIATE/INAPPROPRIATE METRICS IN VIETNAM.....	71
G.	CONCLUSION	73
V.	OPERATION IRAQI FREEDOM 2007.....	77
A.	HISTORICAL NARRATIVE.....	77
B.	HISTORICAL CONTEXT	79
C.	NATIONAL IMPERATIVE	82
D.	THE U.S. MILITARY ORGANIZATION IN OPERATION IRAQI FREEDOM	83
E.	THE NATURE OF METRICS.....	85
F.	APPROPRIATE/INAPPROPRIATE METRICS IN OPERATION IRAQI FEEDOM	86
G.	CONCLUSION	88
VI.	CONCLUSION	91
	LIST OF REFERENCES	99
	INITIAL DISTRIBUTION LIST	105

LIST OF FIGURES

Figure 1.	Metrics Development Chain	9
Figure 2.	Organizational Forms and their Ideal Environment.....	14
Figure 3.	Metrics Typology.....	25
Figure 4.	Organizational and Environmental Influence on Appropriate Metrics.....	30
Figure 5.	Appropriate vs. Inappropriate Metrics	31

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LIST OF TABLES

Table 1. The Metrics Development Chain in the Greek Civil War, Vietnam, and Iraq91

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LIST OF ACRONYMS AND ABBREVIATIONS

AQI	Al Qaeda in Iraq
ARVN	Army of the Republic of Vietnam
COIN	Counterinsurgency
COP	Coalition Outpost or Combat Outpost
DAG	Democratic Army of Greece (<i>Dimokratikos Stratos Ellados</i>)
EAM	National Liberation Front (<i>Ethniko Apeleftherotiko Metop</i>)
GCW	Greek Civil War
ISF	Iraqi Security Forces
IW	Irregular Warfare
JSS	Joint Security Station
JUSMAPG	Joint United States Military Advisory and Planning Group
KKE	Communist Party of Greece (<i>Kommounistiko Komma Elladas</i>)
MAAG	Military Advisory and Assistance Group
MACV	Military Assistance Command, Vietnam
NLF	National Liberation Front
NVA	North Vietnamese Army
SOF	Special Operations Forces
SIGACTs	Significant Activities
USAGG	U.S. Army Group-Greece
VC	Viet Cong

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I. INTRODUCTION

A. PURPOSE

In irregular warfare (IW) environments, where winning the support of the population is often key, the United States and its military have consistently demonstrated difficulty in developing metrics to analyze the effectiveness of its operations. Failure to understand effectiveness in IW leads to difficulty in determining a clear strategy toward success. Too often in the history of United States' involvement in IW, the United States becomes too focused on inappropriate metrics to reflect progress and success, or fails to select the appropriate metrics amongst endless volumes of data to accurately reflect the environment and the winning of population perceptions and support. The purpose of this thesis is to examine whether certain external stakeholder and internal organizational pressures influence the military toward developing and selecting metrics that can be ineffective in evaluating success in IW. This thesis will also discuss how to overcome these pressures and have the ability to focus on appropriate metrics that best represent effectiveness in the IW environment and success in winning the population's support.

B. BACKGROUND

Throughout the past decade, the United States and its allies have been engaged in IW conflicts in Iraq and Afghanistan, as we fight for influence and control over their respective populations. Furthermore, it appears likely that IW conflicts like those in Iraq and Afghanistan will remain a persistent challenge in the international environment through the foreseeable future. Over the past decade, the United States has obtained a great deal of institutional knowledge in IW through lessons learned and experiences among a number of different environments, populations, and contexts. However, what is still lacking is the ability of military commanders and planners to effectively measure progress and success in an IW campaign. At the start of the Global War on Terror, military units preferred to evaluate and measure their success in familiar and relatively simple terms. Often this involved evaluations based primarily upon the number of

operations conducted, the number of enemy killed or captured, the number of reconstruction projects initiated and other similar criteria. These metrics, while easily accessible to units in terms of their collection and interpretation, do not necessarily represent effectiveness in winning the population's support. Over the past several years, the United States government and military has begun to undertake a more population-centric approach toward IW; but, the United States still demonstrates a strong preference to rely upon quantifiable metrics of activity which invite serious complications with validity and reliability. That is, quantifiable metrics of activity may often provide inconsistent information, or worse, fail to depict true progress in the IW conflict. Moreover, these often lack the descriptive depth necessary to facilitate the necessary understanding of the IW environment. While many scholars and military planners continue to debate and define correct metrics for IW, the foundation of the problem lies with the pressures created by policy-maker and public demands, and certain organizational tendencies present in the military structure.

C. LITERATURE REVIEW

The U.S.'s protracted engagement in IW conflicts within Iraq, Afghanistan and other regions following September 11, 2001, have prompted increased interest in how to appropriately measure progress in IW. Recognizing its doctrinal preoccupation with conventional war fighting and limited guidance on IW principles, the Army published FM 3-24 in December 2006 to partially address this oversight with regard to counterinsurgency (COIN). While helpful in broad terms, FM 3-24's limited value in addressing how to measure progress and success is evident in the wide body of literature on the subject that has recently grown from within policy and academic communities. The result is a collection of works that approaches the issue from a variety of perspectives, but achieves little consensus or practicality in terms of application.

Currently, the predominant effort evident in recent metrics literature is a prescriptive focus on finding the right metrics to evaluate IW conflicts. Authors working toward this end utilize several different approaches to sort through and determine the appropriate metrics. While several works devise lists of proposed metrics, many scholars

tend to first arrange metrics based on focus areas. Heather Gregg in “Beyond Population Engagement: Understanding the Goals of Counterinsurgency” refers to these focus areas as “pillars.”¹ Organizing metrics by these pillars allows the military organization to focus on improving outcomes among the numerous interrelated focuses of IW, all geared toward winning population support and achieving success in IW. However, the various authors writing on the subject tend to use different, but slightly similar, pillars for arranging metrics. For instance, Gregg recommends pillars based on security, economics, governance, justice, social capital and national identity.² Michael Dziedzic, Barbara Sotirin, and John Agoglia (eds.) in *Measuring Progress in Conflict Environments (MPICE)*, focus on five pillars for measuring effectiveness: political moderation and stable governance; safe and secure environment; rule of law; sustainable economy; and social wellbeing.³ On a slightly different note, David Kilcullen, in *Counterinsurgency*, devises pillars that are more practical and accessible for tactical units by dividing them into population-related, host nation, security force, and enemy; and by providing numerous sample metrics for each pillar.⁴ Overall, these works demonstrate the effort exerted to organize the various forms and arrangements of metrics in hopes of determining which prove most appropriate for evaluating progress and success in the IW conflict. However, these works, and many others, do not account for the inherent influences of metrics themselves, or the external and internal influences that shape which metrics an organization selects.

Another supporting element within this widely embraced prescriptive effort includes works that examine metric development and use analytically. Metrics serve to distill the seemingly infinite number of available observations one can make about an IW environment into terms that can be collected, analyzed, and interpreted in a way that will

¹ Heather S. Gregg, “Beyond Population Engagement: Understanding the Goals of Counterinsurgency,” *Parameters*, 39(3), 21.

² Heather S. Gregg, “Beyond Population Engagement: Understanding the Goals of Counterinsurgency,” *Parameters*, 39(3), 21.

³ Michael Dziedzic, Barbara Sotirin, COL John Agoglia (eds.), *Measuring Progress in Conflict Environments (MPICE)—A Metrics Framework for Assessing Conflict Transformation and Stabilization*, Defense Technical Information Catalog, 2008, <http://www.usip.org/files/resources/MPICE%20Aug%2008.pdf> (Accessed on 30 March 2011), 6.

⁴ David Kilcullen, *Counterinsurgency*, (New York: Oxford University Press, 2010), 59.

inform military and political leaders on the efficacy of their chosen strategy. However, IW's foundation in perceptions, relationships, and influence, and similarly abstract concepts do not readily lend themselves to clear and accessible attributes for comparison. Accordingly, the distillation of IW's essential qualities into accessible and comparable terms is understandably difficult and fraught with challenges in achieving accuracy, reliability, and validity. Broadly speaking, these works seek to explore metrics' foundational elements and apply social scientific methods in their use to realistically define their capabilities and thus identify their inherent strengths and weaknesses. William Murray, for example, examines the evaluation of metrics in terms of causality in his work "The Will to Measure."⁵ Here, Murray postulates that an effective metric possesses the highest degree of correlation between a cause and the desired effect in his discussion on assessing military effectiveness. Similarly, Shon McCormick and Dave LaRivee provide guides meant to improve the audience's understanding of metrics and inform the method of their use.⁶ The importance of this subject is often overlooked among works in the other categories.

Improving the practitioner's understanding of metrics, applying academic discipline to their development and use, and ultimately determining the best metrics for IW are all important efforts in improving U.S. military performance in IW conflict. However, the dominant focus in these areas reflects an implicit belief that the solution to the U.S. military's apparent difficulty using metrics in IW lies within the metrics themselves. However, the U.S. Army's experience with metrics in Vietnam, as described in Gregory Daddis' *No Sure Victory*, suggests that other considerations warrant attention as well. Daddis' account strikingly contrasts a common perception that the military failed to measure its efforts thoroughly, and instead demonstrates the enormous amount of effort and resources devoted to data collection throughout its involvement.⁷ To

⁵ William S. Murray, "A Will to Measure," in *Parameters* (Autumn, 2001), pp. 134–157.

⁶ Shon McCormick, "A Primer on Developing Measures of Effectiveness," *Military Review* (United States Army Combined Arms Center), July-August 2010: 60–66.

Dave LaRivee, "Best Practices Guide for Conducting Assessments in Counterinsurgencies," *Small Wars Journal*, August 2011: 1–35.

⁷ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York, New York: Oxford University Press, 2011), 10, 224.

illustrate this inundation of data, reports evaluating merely one aspect of the military's effort in 1967 produced approximately 900,000 pages monthly.⁸ Thus, *No Sure Victory* suggests that the military in fact possessed great capability to collect a wide variety of different measurements in IW, many of which undoubtedly could have proved useful. Yet, despite the reams of data available after years of collection, the military in Vietnam seemingly appeared unable to ever fully understand its environment and unable to determine which metrics would best guide its efforts toward a more successful conclusion.

With the capability to collect a wide variety of measurement types, and the availability of seemingly endless amounts of data, the military's difficulty with metrics in IW appears to hinge more upon the military's preference among available metrics, and less about what it is capable of measuring, or the metrics themselves. If true, this conclusion prompts further questions regarding what drives the military's preference among measurements in IW. Few selections among the metrics literature address what these influences are, whether they are internal or external, or discuss what their specific impact may be.

D. RESEARCH GOAL

Overall, from examining the above literature, we discovered that there exists a void in analyzing the institutional pressures that affect metrics development and selection. Thus, the question this thesis intends to answer is: What are the factors that affect metrics development in IW, and how do these factors influence our ability to interpret the IW environment and select appropriate metrics for evaluating progress and success? From this question this thesis will provide awareness of the pressures created by external demands and organizational tendencies on the military's ability to develop appropriate metrics. Using the cases of the Greek Civil War, Vietnam, and Operation IRAQI FREEDOM, this thesis will demonstrate how the military has historically managed these pressures and successfully, or unsuccessfully, employed metrics to

⁸ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York, New York: Oxford University Press, 2011), 121.

evaluate progress and gauge strategy. We selected the Greek Civil War, Vietnam, and Operation IRAQI FREEDOM because as IW conflicts they vary in historical context, geography, and enemy. More importantly, these conflicts demonstrate variance in the pressures generated by external demands placed on the military, and by the organizational tendencies of the military force package selected for the conflict. As we will show, the search for appropriate metrics of success in IW must seek to overcome these pressures and the bureaucratic inward focus of the U.S. military in order to measure true effectiveness and achieve environmental understanding.

II. THE METRICS DEVELOPMENT PROCESS

A. INTRODUCTION

The United States military is a results-based organization that regularly seeks to evaluate the progress and success of its strategy. In conventional warfare, progress and success can be measured by indicators that have attractive qualities (valid, reliable, and quantifiable) and effects, such as geographic gains, battle damage assessments, production of war material, and unit activities. However, in an irregular warfare (IW) environment, progress and success can be hard to define and evaluate due to the ambiguity and indirect nature of the conflict. Success in IW requires gaining influence over and support of the population, while weakening popular support for the adversary.⁹ Thus, evaluating success in IW requires an accurate and thorough interpretation of the environment in order to assess popular perceptions. Unfortunately, an IW environment is complex and unstable, which provides a massive amount of measurable data that is always changing, and can overload analysts attempting to interpret the situation. Thus, the challenge in an IW conflict is selecting the appropriate metrics that best measure true effectiveness of one's strategy and indicates success.

However, choosing the appropriate metrics is more than simply selecting the correct environmental data to evaluate. The process of selecting metrics to evaluate progress and success is indirectly influenced by the national imperative, directly shaped by the military organization, and challenged by the nature of the metrics themselves, resulting in metrics that may be appropriate or inappropriate for IW. The term national imperative here refers to the importance of the conflict in terms of national strategic policy, national interest, media influence, and the public support of the IW conflict. In other words, the national imperative is the way the nation (leaders and people) "sees" and "values" the mission. All conflicts have a certain level of national imperative in order to justify U.S. military involvement; however, some conflicts appear to have a higher

⁹ Department of Defense, *Irregular Warfare Joint Operating Concept*, Version 1.0, 11 September 2007, 21.

national imperative than others. As we will show, the national imperative influences the metrics process by demanding increased reporting, faster results, and indicators of success. The national imperative also influences the amount of resources applied to the given conflict. The more resources applied to a conflict require a larger military organization to manage and utilize the resources. Additionally, the culture of the military organization impacts the process of selecting metrics and the ability to measure progress. As we will develop below, traditional U.S. military organizational culture closely resembles a “machine bureaucracy,” that is, primarily focused on the internal efficiency of the system and is more concerned with quantifying activity than assessing the effects of its actions in transforming inputs into outputs.¹⁰ As a machine bureaucracy, the military demonstrates a strong preference to condition its activities for a simple and stable environment, which is not compatible with the complex and unstable IW environment. Furthermore, the nature of the metrics themselves affects an organization’s ability to evaluate progress and success. In the IW environment, there exists many different ways for an organization to define and categorize the various types of data collected in the conflict. Understanding how to interpret the different categories of measurable data, in terms of their strengths and weaknesses, will assist a unit in evaluating the effects of their activities. Finally, from the effects of national imperative, the culture of the military organization, and the nature of metrics, the organization then must determine if its selected metrics are appropriate or inappropriate for IW. As success in IW is tied to winning popular support and popular perceptions, appropriate metrics must be able to quantitatively or qualitatively show progress in these areas, and identify the effects of the organization’s activities toward these goals.

We argue that due to influences present in metrics, it is often difficult to select and utilize the appropriate metrics for identifying effectiveness and progress in IW. For instance, a high national imperative exerts influence on the military organization with demands for continuous reporting and demands for quick progress. This pressure will then cause the military organization to select easily attainable metrics of agent activity to

¹⁰ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988).

show progress. However, these metrics are sometimes inappropriate for IW and do not reflect the true effects of the organization's activities. Figure 1 depicts a "causal chain" that influences the metrics process in IW.

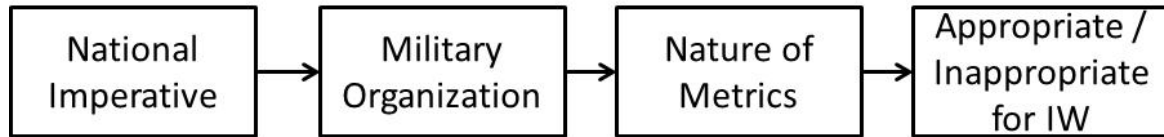


Figure 1. Metrics Development Chain

Variations in each of these nodes affect the ability of a military organization to evaluate and guide itself in an IW conflict. The remainder of this chapter will focus on explaining these four areas and the impacts they have on metrics. Being able to fully understand the effects of the metrics development process will help a military organization sort through the vast amounts of measurable data, ward off negative external pressures and organizational tendencies, and select the appropriate metrics for evaluating its progress and achieving success in IW. This process begins with the national imperative of the conflict.

B. NODE 1: NATIONAL IMPERATIVE

The national imperative affects how a military organization, tasked to conduct IW, evaluates progress by shaping the scale of military forces involved in the conflict, and by creating demands for easily quantifiable measurements of success. The national imperative relates to national interest, which stems from national policy, strategic goals, popular support, and public perception. In organizational theory, the higher the importance of an operation results in increased pressures from the external stakeholders of the organization.¹¹ For a military organization, the external stakeholders are primarily represented by the policy-makers comprising the executive and congressional leadership of the nation who develop national policy and strategic goals. If an IW conflict has a

¹¹ Richard L. Daft, *Essentials of Organization Theory and Design* (Mason, OH: Thomson Learning, 2003), 27.

high national imperative due to its bearing on national policy, then the stakeholders will demand increased reporting and more results from the military organization. As a result, the military organization in IW will more likely rely on quantifiable measures of organizational (agent) activity, because these metrics are easily accessible and succinct, thus providing quick and easy reporting to satisfy external stakeholders' demands for information associated with the high national imperative. Another aspect of national imperative is the influence of popular support and public perception on the external stakeholders. Policy-makers remain constantly focused on public perceptions as required by the nature of their profession. Furthermore, in times of conflict population support is often fickle, especially in IW conflicts that are typically long in duration. Additionally, the media also plays a significant role because the publicity of the conflict and the stories told can shape the attitudes of the population and the responses of the stakeholders, regardless of the truth contained in those stories. Therefore, the stakeholders' desire to satisfy the media and placate the population can increase the national imperative. This increase will cause the stakeholders to demand quicker results and increased reporting in order to appease the media and the population. In response to these pressures, the military organization will be tempted to focus on quantifiable measurements of agent activity that relate internal productivity to progress, especially because numbers convey a sense of validity and objectivity. However, the reliance on numbers can be misleading and only provide an illusion of short-term progress. Also, the pressures of the media and the population often cause the stakeholders to place constraining timelines on the military organization, which causes the military organization to rely on quick producing measurements of agent activity, instead of waiting for the development of long term measurements that depict the true effects of operations toward progress and success.

Another consequence of an increased national imperative is the associated increase in the commitment of national resources. The importance of IW conflict toward national policy or popular attitudes will reflect in the amount of forces, money, and equipment dedicated toward the conflict. With a high national imperative directed toward the conflict, the stakeholders will select a large military organization to manage the resources and appease national and international interests. Over time, as the size of

the forces and the amount of resources committed to the conflict increases, the military organization tasked to manage the conflict will grow and will in turn develop increased machine bureaucratic tendencies in order to effectively manage the growing personnel and resources. As the next section will explain, an increase in machine bureaucracy can sometimes influence an organization to focus more on its internal processes, and thus measure success by quantities of outputs and agent activity, and not by the effects, or outcomes, of its actions. Therefore, a higher national imperative has the propensity to increase the machine bureaucracy characteristics of a military organization and disrupt the organization's ability to develop effective metrics of success.

However, a high national imperative is not always detrimental. In a traditional, state-on-state conventional conflict, a high national imperative is an essential ingredient for success. A high national interest and the support of large national resources are necessary for massing all elements of national power toward defeating the conventional foe. Furthermore, harnessing the support of the population and the media is necessary for supporting the war with increased enlistments and public finances. Therefore, in some conflicts a high national imperative can ensure victory by quickly coalescing national motivation, resources, and power toward defeating an enemy.

Nonetheless, in an IW conflict, a high national imperative may have adverse and unintended effects, as it can distort the selection of the appropriate metrics for evaluating progress, steer a military organization toward inappropriate courses of action, and thus disrupt the ability of the military organization to achieve success. For instance, a military organization's measurements of number of raids conducted or high value targets captured provide easy quantifiable data of the unit's activity that represents progress to a machine bureaucracy and, at the same time, satisfies stakeholder pressures. However, these metrics do not necessarily provide an accurate portrayal of the effects of the operations toward winning the IW conflict. Furthermore, a higher national imperative in terms of national policy interests could push certain political agendas, which may not be appropriate at the ground level of the IW conflict. For example, a rush toward democracy creation, like in the early years of Operation Iraqi Freedom, could create a non-secular, majority driven regime with unintended negative consequences. While the

conduct of democratic elections provided good quantifiable metrics of activity in Iraq, it resulted in negative effects in the IW conflict as the Shias dominated the government and the Sunnis were frustrated with little representation. As a result, in an IW conflict, often times a lower national imperative will give the military organization the time and latitude to work long term solutions, avoid the inward focus of bureaucratic systems, and therefore determine the appropriate outcome-based metrics for evaluating success.

In order to demonstrate the influence of the national imperative on the metrics development process, this study will assess the degree of national imperative associated with historical cases of U.S. involvement in IW. A high national imperative can be indicated by factors that include the frequency with which the conflict appears in the leading edge of the news, political messages, or legislative and executive actions. Conversely, low national imperative can be indicated by relatively little national political action or media attention. As we discussed, an increased national imperative creates a demand for increased information and increases the amount of resources committed to the conflict. The next section will describe how these factors will shape the activities of the selected military organization and will create tendencies to focus on inappropriate metrics in IW.

C. NODE 2: THE U.S. MILITARY ORGANIZATION AND FORCE PACKAGE SELECTION

While the degree of national imperative attached to a given conflict clearly exerts substantial influence on how the military evaluates its progress and success in warfare, the military's own organizational characteristics also wield a great deal of influence. As previously established, the degree of national imperative attributed to a given conflict will influence the type of military organization, or force package, selected by policy makers to engage in that conflict. The field of organizational theory suggests that an organization's structural arrangement and the coordinating mechanisms the organization uses to direct its operations exert a significant influence in determining how the organization evaluates its progress or success. Studying the type of military force package selected, and thus obtaining a clearer understanding of its organizational

characteristics, should further illuminate how and why the force package chooses to assess its progress while engaged in conflict in a specified way. This understanding assists further examination of metric types and assesses their appropriate application to differing forms of conflict, whether they are conventional or irregular, in subsequent sections.

To facilitate this analysis, the following section will briefly describe Henry Mintzberg's organizational model and its implications regarding organizational preference for measuring progress. Also, this section will briefly evaluate the U.S. military's organization through Mintzberg's model, focusing on behaviors and coordination mechanisms. While many agree that the U.S. military's characteristics, behaviors, and culture are largely fixed, closer examination reveals that significant variation exists between individual services, branches and units. Thus, the package of military units and components selected to engage in IW can be important in determining how the force package interprets and assesses the conflict environment. This illustrates the degree of variance possible among military force packages selected to respond to conflict in terms of their organizational characteristics and measurement preferences. In conclusion, this section will demonstrate that while the U.S. military's dominant organizational characteristics primarily reflect Mintzberg's machine bureaucracy, selected force packages may exhibit different organizational characteristics. Understanding that conflict environments vary widely between conventional and irregular forms, selection of the appropriate organization and attendant measurement scheme is critical to achieving success as efficiently as possible.

1. Organizational Forms and Implications

Mintzberg's organizational model describes four (and one additional) archetypal organizations whose configuration and coordinating mechanisms ideally suit them to operate within an environment characterized by varying degrees of complexity and stability.¹² In this model, an environment characterized by high values of both

¹² James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 298–299.

complexity and instability fosters a correspondingly high degree of environmental uncertainty, where decision makers lack adequate information about the environment and have difficulty predicting environmental changes.¹³ Thus, these organizations' structural forms and operating behaviors evolve, in part; to improve operations amidst the degree of environmental uncertainty they must contend with. Describing the organizational forms that bound the two environmental extremes of stable/simple and unstable/complex illustrates the theoretical scope of those organizational characteristics that may be observed in further analysis of the U.S. military.

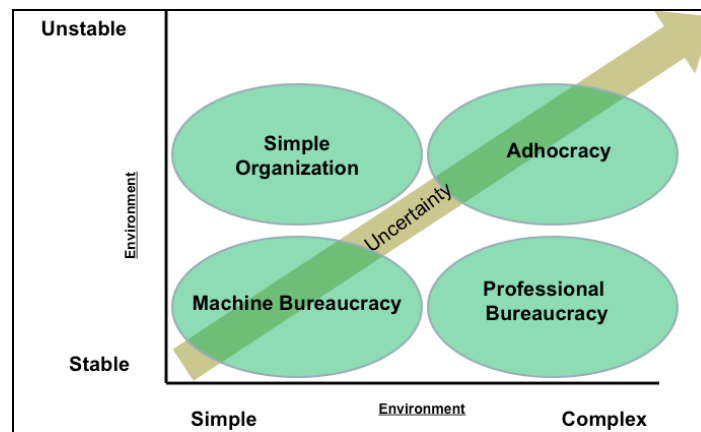


Figure 2. Organizational Forms and their Ideal Environment¹⁴

To optimize operations in a highly simple and stable environment (see lower left quadrant of Figure 2), Mintzberg proposes the machine bureaucracy organizational form. The nature of this reasonably certain environment permits the machine bureaucracy to develop a large organizational structure that relies upon highly standardized and formalized work processes managed by a hierarchical administration.¹⁵ These processes facilitate greater coordination among the work force, which further enhances efficiency in

¹³ Richard L. Daft, *Essentials of Organization Theory and Design* (Mason, OH: Thomson Learning, 2003), 52.

¹⁴ Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January-February 1981), 107. Adapted from teachings by Prof Erik Jansen in Naval Postgraduate School course MN3121: Organizational Theory & Design, February 2011.

¹⁵ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 279, 281, 297.

organizational production.¹⁶ While formalized work processes assist in achieving tighter coordination of effort among the workforce, they also enhance control of the work output and thereby reduce variability in output.¹⁷ Reduced variability imparts a greater degree of predictability for the organization's middle management and senior leadership who must routinely evaluate the organization's overall progress and success in relation to its competitors and the environment.¹⁸ These characteristics suggest that while the machine places primary emphasis on achieving efficiency and productivity within its 'ideal' environment, they simultaneously limit the organization's adaptability and potential to innovate new solutions if faced with increased complexity or instability.¹⁹

In terms of evaluating progress and success, the preceding description illustrates the high degree of inward orientation exhibited by the machine bureaucracy, given the importance placed upon coordination, process efficiency, and production. Predictably, assessments of success and progress will focus primarily upon measurements of organizational inputs, outputs, and processes, especially in quantitative terms. These evaluations of organizational activity will rival or exceed the importance of assessing the organization's impact on the environment and permit comparison of work output among the subordinate elements to detect variation in performance. Detecting variation enables the organization to execute corrective action in the interest of achieving the desired level of coordination and uniformity.

To contend with a highly complex and unstable environment, Mintzberg proposes the adhocracy organizational form. The nature of this highly uncertain environment encourages the adhocracy to develop a looser, agile organizational structure that relies

¹⁶ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 297.

¹⁷ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 281.

Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January-February 1981): 7.

¹⁸ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 281.

¹⁹ Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January-February 1981): 8.

upon a highly trained and educated work force to exercise judgment in determining and executing work requirements and production needs.²⁰ These characteristics foster greater autonomy and thus require far less rigid organizational structure or standardization and formalization of work processes.²¹ This autonomy permits subordinates to devise innovative and adaptive responses to the complexity of their environment and implement them as its evolution and dynamics require.²² Finally, mutual adjustment among the organization's subordinate elements further enhances the organization's ability to develop, innovate, and implement improved practices as individual members learn from the successes and failures of the others.²³ Rather than relying on a prescribed set of guidelines to direct activity, the organization communicates across its membership as lessons are learned, thereby speeding the organization's learning cycle and improving response time to the environment.

In terms of evaluating success and progress, the preceding description illustrates the high degree of outward orientation exhibited by the adhocracy, given the importance placed upon innovating and adapting responses to a changing environment. Thus, measures of success and progress occur primarily through evaluating the organization's impact (or effect) and response to the environment. These organizations implicitly understand that discerning the true impact of their behavior within the dynamic complexity of their environment is difficult and requires constant monitoring and adjustment. Behaviors that prove successful in one context do not immediately apply to the next and so these organizations expend more effort to obtain as complete and uninterrupted of an assessment of the environment as possible.

²⁰ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 301–302.

²¹ Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January-February 1981): 10.

²² Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January-February 1981): 11.

²³ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 278–279.

2. The U.S. Military's Organization

The description of the two organizational forms that bound the extremes of Mintzberg's model illustrates the wide degree of variance in organizational characteristics and behaviors through which one may analyze and interpret the U.S. military's organization. However, the forms described in this model serve only as idealistic renderings and therefore do not exist in a "pure" expression within any existing organization. Rather, organizations express degrees of variation upon those major characteristics that define each form (and those in between), which allows them to reflect some elements of two or more of the archetypal forms Mintzberg offers. A study of the U.S. military's organization quickly reveals dominant machine bureaucratic tendencies, with the U.S. military possibly being the quintessential example of a bureaucratic institution.²⁴ Placing specific emphasis on organizational behaviors and coordinating mechanisms, the military's machine bureaucratic tendencies are best observed in, and delineated by, its administrative functions and operational activities. The publication and strict enforcement of regulation and doctrine serve to formalize, standardize and thus coordinate all of the behaviors, expectations, and requirements for its members and subordinate organizations within these two core categories.

The military's administrative functions describe those systems, procedures and mechanisms that define how the military raises, trains, develops, and maintains the force in terms of its people, its equipment and its organizations. Success in these administrative functions directly supports the military's ability to conduct its operational activities. The explicitly prescribed and closely managed process through which individuals are trained, evaluated, promoted and professionally developed within the services highlights one of the more powerful manifestations of machine bureaucratic behavior within the military.

Alternatively, the military's operational activities describe the training and execution of the military's widely varied war-fighting skills that enable the force to

²⁴ Jessica Glick Turnley, *Cross Cultural Competence and Small Groups: Why SOF are the way SOF are*, JSOU Report 11-1, Joint Special Operations University (MacDill Air Force Base: The JSOU Press, 2011), 52.

engage in sustained combat. Also governed by doctrine and regulation and reinforced by regular intervals of professional development, the military exerts considerable effort at formalizing and standardizing the tactical and operational planning and practices of its units. Arguably, the most potent means through which the U.S. military achieves a high degree of formalization, standardization, and coordination among its large force is in the codification of its official language, its planning process, and the tactics and procedures that explain how operations are conducted. Together, these elements provide the foundation through which the military defines and prepares for its missions. These enable military units from across the services and variety of branches to conceive and communicate ideas about training and operations and achieve a surprising degree of uniformity. Similarly, the formalized prescribed process through which the military plans and produces formalized orders to initiate action reinforces the organization's ability to coordinate and standardize their actions in a variety of settings and thus achieve greater unity of effort.

While not an exhaustive accounting of all U.S. military organizational behavior, this discussion should underscore the military's close reflection of the key behavioral characteristics relevant to a machine bureaucracy. Correspondingly, these behaviors beget a strong tendency for the military to focus evaluations of individual and organizational success primarily through measuring their activities, especially in quantitative terms. In this way, individual evaluation reports consistently focus on quantifying the contribution of an individual to the unit's effort. Likewise, higher headquarters' assessment of its subordinate units focuses almost exclusively on organizational activities in terms of its inputs and outputs. While different for each kind of unit, these may include the amount of terrain seized, the number of enemy captured or killed, the amount of clinics built and similar example. This inclination to evaluate progress with an inward orientation on organizational activity necessarily occurs at the expense of an outward orientation toward the environment.

3. Organizational Variation in Force Package Selection

While the military clearly exhibits a strong resemblance to Mintzberg's machine bureaucracy, in practice, force packages selected from within the larger organization can demonstrate a surprising degree of variance in their behaviors and coordinating mechanisms that begin to reflect Mintzberg's adhocracy. However, just as no military unit mirrors the machine bureaucracy exactly, neither will they fully manifest all of the adhocracy's various features. In fact, however, far a force package may loosen its organizational behavior and mechanisms toward the adhocracy's form, it will always maintain a strong tie to the machine bureaucratic form given its reliance upon the larger military institution for its instructions and support.

A wide array of variables may influence how or why a selected force package may maintain the formalization and standardization of the machine or evolve to adopt the looser, adaptive, and innovative behaviors of the adhocracy. A key factor, according to organizational theory, may be the size of the force package selected.²⁵ Whereas a larger force package may require more formalization and standardization to maintain coordination and control, a smaller organization may find these procedures inhibiting. Experience and training is another important factor discussed by Mintzberg.²⁶ A force package composed primarily of conventional forces that necessarily contains a large number of younger and less experienced soldiers is likely to rely on machine bureaucratic behaviors to maintain control and coordination. Alternatively, a force package comprised of more senior, experienced, and highly trained soldiers may be comfortable relying instead on the judgment, mutual adjustment, and adaptation of its members to conduct its operations. Jessica Glicken Turnley provides an excellent illustration of the potential variation in force package organizational behavior in her comparison of conventional forces and special operations forces (SOF). In her analysis, Glicken Turnley clearly illustrates the more "adhocratic" organizational structure and behavior of SOF forces

²⁵ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 293.

²⁶ Henry Mintzberg, "Organization Design: Fashion or Fit?," *Harvard Business Review* (Harvard Business School Publishing) 59, no. 1 (January–February 1981): 7, 10.

with particular emphasis on their size, higher degree of training, and expertise.²⁷ In contrast, her discussion of conventional, or general-purpose forces (GPF), clearly reflects the key organizational characteristics of the machine bureaucratic form.²⁸

4. Operationalizing Organizational Types

In order to understand the relationship between selected force packages, the measurements of success they prefer to use, and these metrics' suitability to differing combat environments, this study will assess the degree of bureaucratic or adhocratic behavior these forces demonstrate in historical cases. Force packages that primarily reflect machine bureaucratic behavior will clearly demonstrate any of several distinct tendencies. These include a high degree of directive and centralized control over subordinate units, as well as strict adherence to tactical doctrine and administrative procedures (standardization and formalization) regardless of its suitability. In terms of organizational structure, machine bureaucratic force packages will tend to be significantly larger organizations with large headquarters, multiple subordinate headquarters and a high ratio of support soldiers to combat soldiers. Force packages that assume more adhocratic behavior will generally reflect the opposite of these attributes. These force packages will exercise very little directive, or centralized control over subordinate units. These units will not require or observe strict adherence to standard, tactical doctrine and procedures, and will allow subordinate units to adapt their operations to the environment as necessary. Finally, these organizations will be much smaller, with fewer subordinate headquarters and a lower ratio of support soldiers to combat soldiers.

Understanding the theoretical range of organizational characteristics possible in force packages, and their attendant measurement preferences, requires further

²⁷ Jessica Glicken Turnley, *Cross Cultural Competence and Small Groups: Why SOF are the way SOF are*, JSOU Report 11-1, Joint Special Operations University (MacDill Air Force Base: The JSOU Press, 2011), 47-48.

²⁸ Jessica Glicken Turnley, *Cross Cultural Competence and Small Groups: Why SOF are the way SOF are*, JSOU Report 11-1, Joint Special Operations University (MacDill Air Force Base: The JSOU Press, 2011), 47, 52-54.

examination and delineation of these measurement types. The following sections will discuss these various measurement forms in order to facilitate an assessment of their utility in various forms of conflict.

D. NODE 3: THE NATURE OF METRICS

The preceding section argued that different organizational forms demonstrate a preference in what and how they measure their progress and success within their respective environments. The study and use of these measurements, increasingly referred to as metrics, spans a wide variety of disciplines, which produces an accordingly wide variety of ways to define their operative terms and understand their use. Broadly speaking, most works delineate metrics primarily between those that measure activity and those that measure effects in the environment. Whatever disagreement may exist regarding the definitions or usefulness of metrics, the military appears committed to continue their use, which necessitates clarity in definitions and a thorough understanding of their strengths and limitations.

This section will provide an examination of metrics and conclude by providing a differentiation of their type, establish a common vocabulary for use throughout the rest of this work, and provide a simplified typology meant to enhance understanding of their most important features. This will facilitate a clearer understanding of their use as well as highlight their relative strengths and weaknesses. From this, the reader will be equipped to evaluate the appropriate application of metrics to specific environments in the subsequent section.

1. Defining Metrics

This work will examine metrics as defined along two dimensions and demonstrate their contribution to the goal of measuring progress and success. Metrics are first distinguishable as either quantitative or qualitative in their descriptive form. Secondly, metrics may be distinguished between those that denote activity from those that reflect some kind of outcome. These characteristics are all fundamental elements in illustrating progress and success, which is simply an attempt to indicate some degree of progression

towards, or regression from, established goals. Thus, all metrics attempt to provide some assessment of progress toward established goals.

2. Quantitative vs. Qualitative

Arguably the simplest classification of metrics distinguishes their quantitative and qualitative forms. Quantitative metrics seek to express an observed indicator through enumeration. In considering military metrics, quantification is most often applied when assessing a greater or lesser degree of exertion, activities, events, objects, or the passage of time. In quantitative metrics, the relative value attributed to an observed indicator is assessed purely as a function of its numerical expression. Military leaders and planners often clearly identify which indicators must be maximized and those that must be minimized in order to satisfy the needs of the organization. Predictably, quantitative metrics achieve a great degree of simplicity and parsimony in their analysis and interpretation, which affords a great deal of accessibility to the user. Despite their general accessibility, their simplicity considerably limits their descriptive breadth and depth when using them to obtain a more thorough understanding of a conflict's actors and the environment.

Alternatively, qualitative metrics provide a much higher degree of description toward a specified indicator. However, in providing more information, qualitative metrics lose the simplicity and accessibility afforded by simple enumeration. Qualitative metrics seek to describe a specified indicator in as much narrative detail as will be directed or tolerated by military leadership, and include both verifiable facts and subjective interpretation. Qualitative metrics may describe key observable characteristics of people, places, objects, events, and activities, but are necessarily subject to the interpretive bias of those responsible for their collection. For example, a subordinate may qualitatively measure security in his area of operations for a given week by providing a detailed illustration of observed events and activities with particular emphasis on significant changes (positive or negative) in relation to previous weeks or expectations. In this way, the commander's measurement of security steps beyond a simple enumeration of those events and activities that affect an area's security and

provides a much higher degree of detail and context. The greater breadth and depth achieved by this more descriptive and subjective form of measurement naturally entails a less succinct reporting format and increases the time required for collection, interpretation, and analysis.

3. Agent Activity vs. Outcomes

Metrics may be further distinguished between those that assess activity and those that reflect outcomes. Measures that reflect agent activity, more commonly referred to as performance, simply express actions taken within the environment in either quantitative or qualitative form. This work will deliberately use the term “agent activity,” or “activity,” in place of performance as it provides a far more complete and descriptive illustration of the characteristic being measured. By focusing only upon actions taken in the environment, measures of activity achieve a high degree of accessibility due to the relatively easy manner in which they may be observed, attributed, and reported. Military leaders and commanders most often focus their measurement of activity upon their own units and the enemy, but these may be further extended to other important actors in the environment as deemed appropriate, such as the activities of non-governmental organizations, tribal militias, etc.

According to organizational theory, an agent’s or organization’s activities may be understood in terms of three distinguishable steps. First, the organization generates activity by collecting and applying inputs, most often characterized in terms of personnel, resources, and time.²⁹ The organization then conducts some form of internal processing whereby these inputs are prepared for application in the environment.³⁰ Finally, the organization applies these assets and resources into the environment as outputs with the intent of achieving some progress towards its stated goal(s).³¹ This description of agent activity is far more thorough than the more common use of the term “performance” found

²⁹ David E. Hanna, *Designing Organizations for High Performance* (Reading, MA: Addison-Wesley Publishing Company, 1988), 11–12.

³⁰ David E. Hanna, *Designing Organizations for High Performance* (Reading, MA: Addison-Wesley Publishing Company, 1988), 12–13.

³¹ David E. Hanna, *Designing Organizations for High Performance* (Reading, MA: Addison-Wesley Publishing Company, 1988), 13–14.

within the military metrics literature. Within this body of work, the term performance tends to imply a narrow emphasis focused only on organizational outputs. Based upon the preceding description, analysis of agent activity does not overly concern itself with the effect that an organization's inputs, internal processes, and outputs yield on its environment. Instead, measurement of agent activity provides members of an organization an inward-focused diagnostic review of its systems' relative efficiency.³²

Measures that reflect outcome, or effect, are far less accessible and more difficult to define than metrics of agent activity. These measures attempt to reflect, with as much specificity as possible, changes in the environment in relation to the objectives (or ends) sought by the various actors who hold a stake in the conflict's result. Most often, military leaders tend to frame these measures in terms of their own intended objectives or those of the enemy. However, as described by military analyst David Kilcullen in *Counterinsurgency*, success in the IW conflict often depends upon satisfying the desires of other stakeholders as well, especially among the indigenous population.³³ Specifically, outcome-based metrics in IW are most often inextricably linked to abstract and conceptual goals that might include achieving an indigenous population's support, improving security conditions, fostering political and economic stability as well as other similarly complex ideas. The complexity inherent in defining the constituent elements of each of these abstract goals stipulates that outcome metrics often cannot be assessed purely as a direct result of agent activity. Rather, conducting assessments with outcome metrics often requires interpretation over time to identify trends.³⁴ Further, these outcomes may be influenced by the unintended or unpredicted results of any and all of an organization's actions in the environment as well as the actions of other heretofore ignored actors. This form of analysis attempts to assess whether an organization's

³² David E. Hanna, *Designing Organizations for High Performance* (Reading, MA: Addison-Wesley Publishing Company, 1988), 14–15. Here Hanna describes a “negative feedback” system that analyzes and compares an organizations outputs to its inputs.

³³ David Kilcullen, *Counterinsurgency* (New York: Oxford University Press, 2010), 52.

³⁴ David Kilcullen, *Counterinsurgency* (New York: Oxford University Press, 2010), 52.

activities are adequately addressing the needs of the environment.³⁵ Accordingly, an organization’s measurement of outcomes is much more focused outward toward the environment and achieving some understanding of the organization’s impact on it.

4. Metrics Typology

Figure 3 illustrates the preceding characterization of metrics using their four key characteristics. This figure facilitates some consideration of metric types in terms of their accessibility, their descriptive breadth and depth, and their applicability to the organizational forms described by Mintzberg.

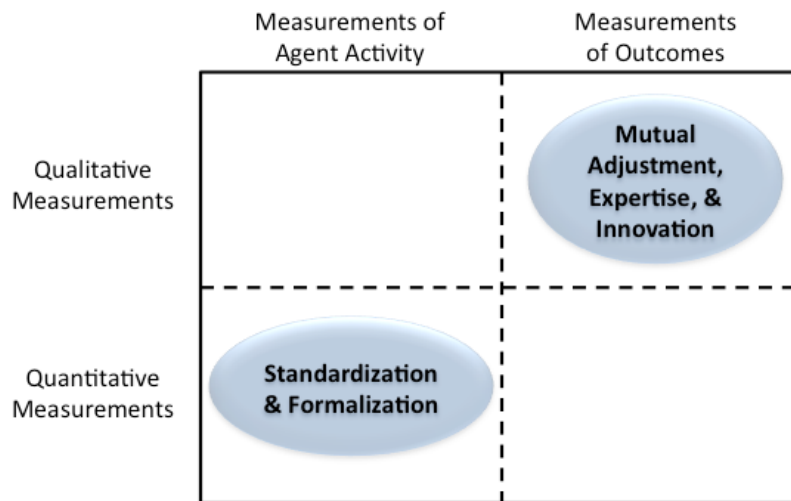


Figure 3. Metrics Typology

5. Implications and Organizational Preferences

Recalling that measurements of activity and quantitative measurements provide the most accessible data, one observes that the top left of the quadrant represents data most easily collected by organizations engaged in armed conflict. Moreover, this form of data is arguably the easiest to process in terms of analysis and interpretation. Collection, processing, and analysis of this data does not necessarily require highly trained and

³⁵ David E. Hanna, *Designing Organizations for High Performance* (Reading, MA: Addison-Wesley Publishing Company, 1988), 15–16. Here Hanna describes a “positive feedback” system that analyzes and assesses an organization’s ability to address the needs of its environment.

skilled personnel with a great depth of understanding of the conflict form engaged upon. However, this level of accessibility incurs a cost in terms of its overall descriptive depth and breadth. The scope of this data is exceptionally narrow given its focus on the activity of the organization in exclusively quantitative terms. While useful diagnostically, its use in determining an organization's overall success and progress within the environment will be limited based upon the form of conflict considered.

Organizations, or selected force packages, that reflect the characteristics of Mintzberg's machine bureaucracy will focus the majority of their effort on achieving coordinated outputs from its subordinate units. Specifically, they will emphasize the standardization and formalization of work processes in an effort to limit output variation and increase the overall predictability of their effort. Assessing the coordination of outputs and attempting to limit variation in output naturally leads these organizations to compare the outputs of their subordinate elements against one another. Coordinating these processes, their outputs, and detecting variation among subordinates is most easily accomplished by reducing the terms of analysis into enumeration and quantification. All of this reflects a clear inward focus on organizational activity. Thus, these organizations will reflexively analyze their success with an inward, rather than outward, focus in assessment. As such, force packages that behave more like a machine bureaucracy will correspondingly demonstrate a dominant preference to assess their success or progress with an inward focus using quantitative measures of activity.

Conversely, qualitative measures of outcomes, as represented in the top right of the figure, present a far less accessible form of data in terms of its collection, processing and interpretation. Qualitative measures of outcomes will include richly detailed sets of data provided in descriptive (often narrative) form. The inherent complexity involved in selecting and describing outcomes for the conflict further increases the time and energy required for analysis and interpretation of this metric form when considering the necessity of analyzing reliability and validity. While the overall potential for providing exceptional descriptive detail is high, this form of data measurement implies the need for a high level of expertise, innovativeness and adaptability in order to ensure measures remain relevant through the course and development of the conflict. Accordingly, the

individuals responsible for its collection, processing and analysis necessarily require a much higher degree of training and skill to focus the effort appropriately and obtain the maximum degree of utility from the relatively large amount of data. The scope of this data is significantly wider than that provided by quantitative measures of activity as it seeks to describe the organization's effect within the wider environment rather than an inward, diagnostic focus.

Organizations that reflect the characteristics and behaviors of Mintzberg's Adhocracy are much more focused on the outward environment. To understand and contend with the complexity and instability that characterize their operating environment, these organizations achieve greater efficiency and effectiveness by employing an operating core that is highly educated and professionalized.³⁶ The increased skill and knowledge fosters an expertise among the subordinates that permits and encourages building a far more comprehensive understanding of the environment and conflict in question. The high values of education among the individual members enable the organization to rely less upon rigid formalization and standardization of behaviors as prescribed by the machine bureaucracy. As experts within their given field, the organizations' leadership is comfortable in relying on the educated judgment of its individual members or subordinate elements and thus confer increasing measures of autonomy. This autonomy, in turn, permits the members and subordinate elements to devise innovative and adaptive responses to the complexity of their environment and implement them as the evolving and dynamic environment requires. This implies a great deal of importance placed on developing a qualitative understanding of the organization's impact on the environment. All of this reflects a clear outward orientation towards the organization's impact within the environment. Thus, these organizations will reflexively analyze their success with an outward, rather than inward, focus in assessment. As such, force packages that incorporate more of the behaviors associated with Mintzberg's adhocracy will correspondingly demonstrate a dominant preference to assess their success or progress with an outward focus using qualitative measures of outcomes.

³⁶ James B. Quinn, Henry Mintzberg and Robert M. James, *The Strategy Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 302.

E. NODE 4: APPROPRIATE AND INAPPROPRIATE METRICS FOR IW

As we have shown in the previous sections, certain organizational structures, combined with influences of national imperative, are drawn to certain types of metrics. Subsequently, these metrics selected by the organization to evaluate progress will fall into two simple categories: appropriate or inappropriate. Appropriate metrics are those that accurately assess the environment and provide critical feedback that prompts the necessary actions. These metrics create a virtuous cycle that begins with understanding the environment and leads to the selection of successful courses of action that create further positive environmental feedback. On the other hand, inappropriate metrics can have two effects on the military organization. Some inappropriate metrics simply fail to provide an assessment of the environment and provide no benefit to the decision maker. However, some inappropriate metrics can also be detrimental to the military organization. These metrics provide information that causes the organization to make inaccurate assessments of the environment and make decisions that are harmful to the organization.

In order to determine appropriate metrics, one must first understand the type of conflict and its associated environment. This study defines the mid to high intensity conventional warfare environment as simple and stable. The environment is influenced by few external factors that remain fairly consistent overtime, when compared to the complexities of the IW environment. The simplicity of the conventional warfare environment involves reasonably explicit objectives articulated in terms of geography, assets, and/or enemy capacity to continue fighting. Furthermore, the few external factors allow the military organization to focus on a narrow set of organizational tasks distinguished in terms of offense and defense. In this simple and stable environment, the military organization's standardization and formalization allow it to efficiently focus efforts and resources toward the common goal of defeating the enemy. Conversely, in IW the environment is complex due to the increased relevance and significance of many diverse elements within the conflict. Since the ultimate goal of IW is control of a given population, virtually every segment of society becomes involved directly or indirectly in the conflict. Additionally, the IW environment is typically unstable as social and political changes amongst the population, changes in international influences, and an

ever-evolving enemy all synergistically hinder an organization's ability to react and respond accordingly. Therefore, in the IW environment the military organization is unable to rely on standardization and formalization to deal with a narrow set of tasks. Instead, the military organization must be dependent on increased mutual adjustment, adaptation, and innovation in order to respond appropriately to the broad spectrum of actors, situations, and continuous environmental shifts

As a result, in order to effectively understand the complex and unstable IW environment, appropriate metrics should be rooted in measurements of outcomes, and the metrics are most effective when qualitative in nature. It is the outcomes, and the detailed understanding of how the outcomes were achieved, that allows an organization to use metrics to indicate success in IW. For instance, narratives describing positive working relationships with a town mayor, village chief, or tribal sheikh, can serve as qualitative measurements at the tactical and operational level to indicate successful efforts. Inappropriate metrics in IW are often those that are quantitative in nature and focus on measuring agent activity. However, in conventional warfare, quantitative measurements of agent activity can provide suitable metrics for evaluation success. For example, in World War II Allied forces used the metric of tons of bombs dropped on Germany to indicate the success of the Allied air campaign in destroying German war-making capacity. This metric can be fairly accurate in gauging success because there is a probable correlation between the amount of bombs dropped and the destruction of German capabilities. Thus, in conventional conflicts, quantitative measures of agent activity can adequately measure progress and success.

As shown in Figure 4, the types of metrics required for conventional warfare and IW roughly coincide with organizational preferences for metrics mentioned in the previous sections. Thus, one can deduce that in conventional warfare, where the environment is comparatively stable and simple; the military organization can develop appropriate metrics of success from quantitative measures of agent activity. In IW, where the environment is more complex and unstable, the military organization needs to rely on metrics derived from qualitative measures of outcomes in order to best evaluate progress and success.

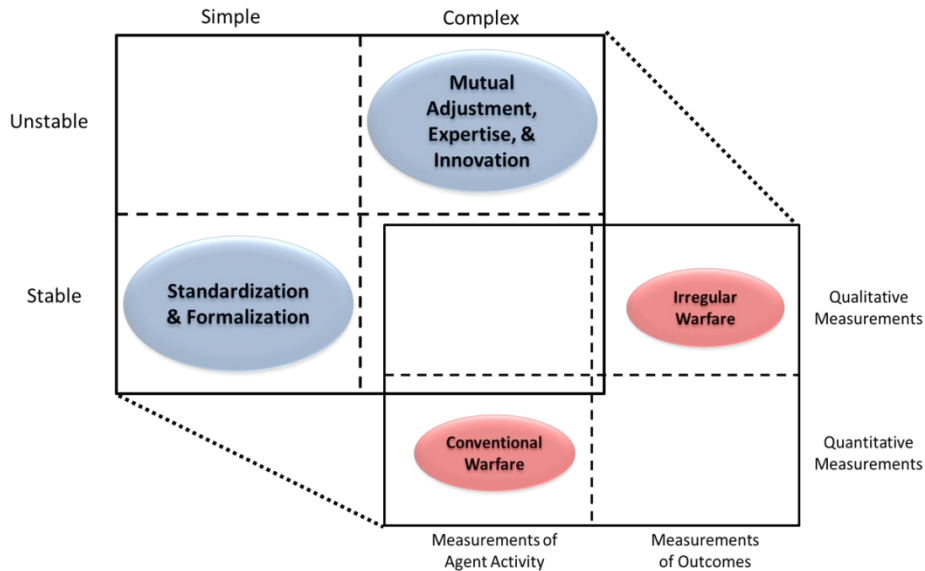


Figure 4. Organizational and Environmental Influence on Appropriate Metrics

Figure 5 depicts an example of appropriate and inappropriate metrics for evaluating true effectiveness in IW. In this example, the metrics are arranged in typical focus groups of economics, governance, and security. However, it is important to note that based on the nature of the IW conflict, these focus groups and their constituent metrics can vary. Regardless, the appropriate metrics depicted in the figure are qualitative and outcome based examples that often reflect progress in IW. For instance, the growth of small businesses and the increase of elements of civil society may be indicators that the actions of a military organization toward stability and winning population support are effective. However, measurements like body count are typically extraneous information that provides no real benefit toward depicting effectiveness in winning the support of the population. Likewise, relying on measurements of enemy significant activities (SIGACTs) can be counter-effective to the military organization in IW. Just because an area has very few SIGACTs does not mean that the enemy is weak and the population supports our efforts. The area could actually have low SIGACTs because the enemy controls the area and does not feel the need to contest our military

organization. Thus, the metric of SIGACTs and other inappropriate metrics could be misleading to the military organization and may result in decisions detrimental to operations.

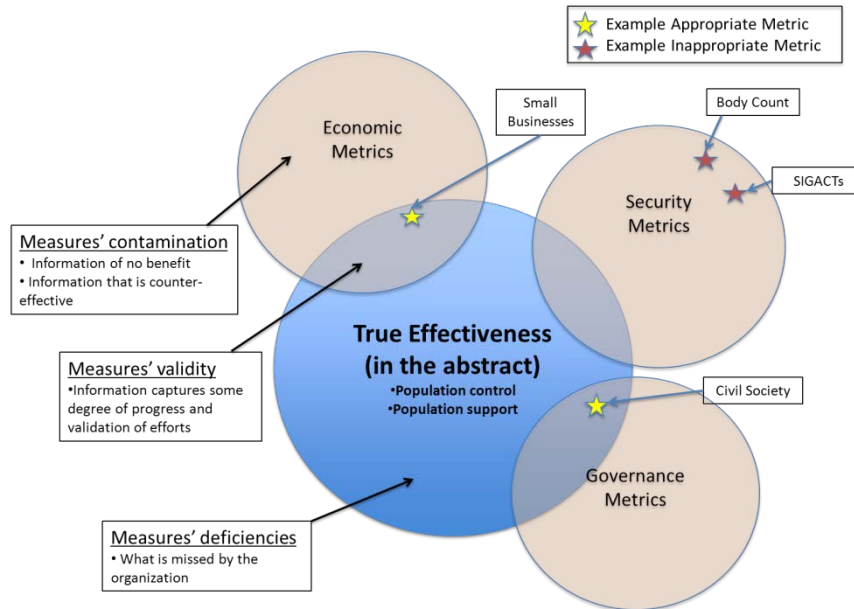


Figure 5. Appropriate vs. Inappropriate Metrics

However, simply relying on any outcome based metrics in IW will not always predict progress, as the appropriate metrics for identifying success in IW vary with the conflict. The IW environment is full of uncertainty, as decision makers consistently have difficulty determining the critical information about the environment, and thus have difficulty predicting environmental changes.³⁷ As a result, decision makers try to measure all aspects of the environment, compiling volumes of metrics, surveys, and other statistical data.³⁸ This typically leads to information overload, as the military organization is unable to analyze all of the data. In order to successfully process the massive amount of information in a manner that is coherent, reliable, and useful, the military organization must be capable of selecting which aspects of the environment are

³⁷ Richard L. Daft, *Essentials of Organization Theory & Design* (Mason, OH: Thompson Learning, 2003), 52.

³⁸ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 10.

relevant and applicable to quantifying success and progress. However, the information that is relevant is constantly changing as the conflict progresses, and is not always applicable for different conflicts. For example, improvements in infrastructure and restoration of civil services may have been an ideal measurement tool in one instance, while security and attack rates best informed another. The USMC concept of the Three Block War captures the metrics quandary perfectly, as what makes a Marine successful on one block has no relevance to his or her success or failure on the adjacent street. Additionally, as Bernard Fall describes, “If it works, it is obsolete.”³⁹ Thus, understanding the environment, selecting the appropriate outcome-based metrics, and being able to change those metrics as the environment changes is critical for adapting strategy and operations toward overcoming the enemy, winning population support, and achieving success.

F. METHODOLOGY

From the causal chain described above, we developed the hypotheses listed below:

1. If an IW mission has a high national imperative, then the military organization will focus on measurements of agent activity
2. If an IW conflict has high national imperative, then policymakers influence will increase the machine bureaucratic tendencies of the military organization
3. If an IW conflict has low national imperative, then military organizations will have the latitude to develop the appropriate metrics for evaluating success and progress
4. If the organization conducting IW has machine bureaucratic tendencies, then the organization will rely on quantitative measurements

³⁹ Bernard B. Fall, “The Theory and Practice of Insurgency and Counterinsurgency,” *Naval War College Review* (Winter 1998), [Originally published in the April 1965 *Naval War College Review*, from a lecture delivered at the Naval War College on 10 December 1964], 12

5. If the machine bureaucracy of the military increases in IW, then the military's focus will be on measurements of agent activity

6. If the organization in IW judges its progress more on measurements of outcomes, then the organization will be more successful

7. An increase in the reliance on qualitative measurements will result in improved environmental understanding and thus increased success in IW

This study will focus on exploring hypotheses 1, 2, 4, and 5. In order to test these hypotheses, the congruence procedure will be employed.⁴⁰ This method provides the means to demonstrate the influences on metrics development process through cross sectional case studies. Based on the consistency of the results of this type of assessment the cases will reveal a degree of congruence based on “similarities in the relative strength and duration of the hypotheses’ causes and observed effects.”⁴¹ The case studies will focus on the American involvement in the Greek Civil War, the Vietnam War, and Operation Iraqi Freedom. We selected these cases because they provide variance in national imperative and selected force packages. The case studies will explore these IW conflicts in terms of how metrics were generated and employed, and how their application affected the conduct and results of events. Through a systematic and consistent evaluation of the selected cases in the format described below, it is possible to identify how and to what degree the hypotheses apply to each case.

1. Historical Narrative

Each case study will provide a historical narrative of the selected event. In this manner the case can be summarized and focused on the relevant factors. Additionally, as IW campaigns can be protracted affairs, the narrative will bound discussion in each case to those factors relevant to the development and employment of metrics.

⁴⁰ Andrew L. George & Andrew Bennett. *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA, USA: Harvard University, 2005).

⁴¹ Andrew L. George & Andrew Bennett. *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA, USA: Harvard University, 2005).

2. Historical Context

To understand the context of each case, the description will begin with a summary of the historical context of the IW conflict. This will frame the event or the selected portion of a larger conflict in a manner that places the analysis in the context of the external factors that influenced how the IW campaign was prosecuted. By understanding historical context and the relevant factors generated by external stakeholders and antecedent conditions, relevant influences on the causal chain can be fully addressed.

3. National Imperative

Once the context and timeline of the conflict has been established the case study will discuss the influence of national imperative on the IW conflict. Important political and or social events will be identified that indicate the degree of National Imperative associated with the conflict. These events should further indicate the explicit and implicit demands of the internal and external stakeholders involved as well as the influences these demands pass down to the military organization.

4. Military Organization

Military organizational assessment will follow the national imperative discussion and address the manner in which national imperative shaped the force package selected. This portion will also analyze how stakeholder demands generate requirements to measure success and progress. The tenants of Organizational Theory presented previously will be used to articulate how the military force selected conducts the IW mission and displays tendencies that influence how metrics for the conflict were constructed.

5. Nature of Metrics

After evaluating the force package, stakeholder requirements, and organizational tendencies, the case study will focus on identifying how the metrics selected fit the hypotheses. By evaluating the organizational tendencies exhibited toward measuring agent activity versus measuring outcomes, the unique nature of metrics in a given conflict

will be presented. This section will illustrate the organizational preferences of the military organization and the degree to which the quantitative or qualitative measurements were employed and weighted by stakeholders. This will facilitate an assessment of the degree to which the military agent displayed the preferences identified by organizational theory.

6. Appropriate/Inappropriate Metrics in IW

As the metrics employed in a given case are established, the case study will then assess the suitability of these measurements. Each case study will conclude that the metrics employed in the conflict were appropriate or inappropriately selected based off the military organization's ability to effectively interpret the IW environment. By establishing the significance of appropriate and inappropriate metrics in a given conflict the efforts to measure success and progress can be assessed as a productive process that informed decisions makers or detracted from the efforts to achieve the objectives of the campaign.

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III. THE GREEK CIVIL WAR

The case of the Greek Civil War (GCW) demonstrates the employment of specifically designed military organizations assigned to conduct IW. The manner in which the American advisors structured their force to weigh measures of performance and outcomes influenced the success of the Greek National Army as a representative of the free world as efforts to deter communism and support democracies following World War II became the new priority for American foreign policy. The manner in which this IW conflict was conducted and evaluated illustrates the value of understanding the environment, stakeholder interests and methods of assessment. The Greek Civil War demonstrates the results of effective prioritization of emphasis and qualitative assessment. The American Advisor effort in the GCW embodies the success of qualitative metrics to assess the environment, validated by appropriately weighted quantitative measures.

A. HISTORICAL NARRATIVE

Civil War erupted in Greece at the conclusion of World War II as the nation struggled to define itself in the wake of the power vacuum created by the occupation and subsequent liberation from the Axis Powers. During the war British Special Operations Executive (SOE) supported a number of resistance groups in Greece. These groups included elements of the previous regime referred to Royalists, the Monarchists, a de facto action arm of the government in exile and new groups like the Communist Party of Greece (*Kommounistiko Komma Elladas* or KKE) and their militant arm known as the National Liberation Front (*Ethniko Apeleftherotiko Metopo* or EAM).⁴² Royalist and Monarchist groups advocated a return to the pre-war democratic form of government opposed the KKE, and acted against the occupiers independent of the communists. By liberation the Greek nation was economically destitute following the withdrawal of the Axis Powers. Tension escalated into open conflict between resistance groups divided by

⁴² William H. McNeill, *The Greek Dilemma: The War and Aftermath*, (New York: J. B. Lippincott Company, 1947), 91–106.

ideology and made desperate by economic conditions. All sides had been supported by the SOE throughout the conflict, the Royalists had not only expended their resources in active opposition against their occupiers, they had also failed to organize to the degree the communist resistance groups had. The KKE was well organized, had stockpiled much of the material support they received from Britain while receiving additional support and safe haven from communist entities in Yugoslavia, Albania and Bulgaria following the end of the War.⁴³ The post war elections in March of 1946 were supervised by the dwindling British security forces and established the Royalists as the legitimate government in post war Greece. Disputing the results, the communist opposition groups revolted, and the Greek Civil War reignited into open conflict.⁴⁴ EAM was reinvented as the Democratic Army of Greece (*Dimokratikos Stratos Ellados*) or DAG.⁴⁵

American involvement in the GCW began in 1947 with the announcement of an aid package to stabilize Europe through a series of loans and supplies. In a speech to a joint session of Congress on 12 March, 1947, President Truman announced a total of four hundred million dollars of aid to Greece and Turkey in an effort to support those governments in the wake of the British announcement that as of 31 March of that year they would no longer continue to support their allies due to pressing financial concerns.⁴⁶ In 1947, Lieutenant General James Van Fleet was assigned as the leader of American advisory mission to the Greek military after Queen Frederika reported to Secretary of

⁴³ George A. Kourvetaris, *The Contemporary Army Officer Corps in Greece: An Inquiry into its Professionalism and Interventionism*, (Ann Arbor, MI: UMI Dissertation Services, 1969), 23–38.

⁴⁴ Modern Greek and Balkan Studies Department, Copenhagen University, *Studies in the History of the Greek Civil War*, ed. Ole L. Smith, (Copenhagen: Mueseum Tusculanum Press, 1987), 213–237.

⁴⁵ Mark Mazower, *After the War was over: Reconstructing the Family, Nation and State in Greece 1943–1960*, ed. Mark Mazower, (Princeton, NJ: Princeton University Press, 2000), 7.

⁴⁶ U.S. Department of State: Office of the Historian, *Office of the Historian: Key Milestones in American History*, Department of State, <http://history.state.gov/milestones/1945-1952/TrumanDoctrine> (accessed Sept 13, 2011).

State George Marshall that the scope of the initial logistical support could not provide what was truly needed; the expertise to bolster the combat capability of the Greek Army.⁴⁷

A full military advisory establishment, the Joint United States Military Advisory and Planning Group (JUSMAPG) on 31 December 1947, replaced the U.S. Army Group-Greece (USAGG). From that time, U.S. Army advisers went into the field with combat forces with a mandate to provide “aggressive assistance in the form of operational and logistic advice.”⁴⁸

Van Fleet focused on the state of the Greek officer corps rather than specific terrain or enemy based operations. His efforts and that of his advisors sought to provide the Greek military with the ability to develop competent units to defeat the communist guerrilla forces, which established firm control of Greece’s mountainous northern regions. The initial assessment revealed that the Greek military lacked capacity and that “combat readiness and troop morale of Greek units were even worse than had been reported.”⁴⁹

With heavy American influence at the operational level and a strong emphasis on officer leadership and individual combat skills across the military, the Greek Army soon began to achieve small successes against communist forces. In small operations beginning on 15 April 1948, engagements against guerrilla elements were decidedly positive. During an offensive in Roumeli, the DAG suffered its first operational defeat while the Greek Army showed a marked improvement in planning and execution.⁵⁰ Following this success the American advisors turned to a much more ambitious target, the communist center of gravity in the Grammos Mountains. Terrain around the communist stronghold in Grammos was formidable, so much so that the DAG openly

⁴⁷ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 156.

⁴⁸ Michael McClintock, *Chapter 1: Interest, Intervention and Containment*, 2002, <http://www.statecraft.org/chapter1.html#28> (accessed August 10, 2011).

⁴⁹ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 170.

⁵⁰ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 175.

declared their redoubt as an “impregnable fort” and confidently began to reinforce their positions for the inevitable assault. By the time Operation Crown, the mission to take Grammos, was initiated in mid-June, the communists had nearly ten thousand troops defending the area. The defenders included reinforcements from communist groups in Albania and whole battalions of DAG reinforcements brought from across the country in hopes of defending the mountain fortress.⁵¹ This dramatic shift from guerrilla tactics, which to this point had served to highlight the Greek Army’s inability to provide security in the rural north, was the opportunity the American advisors sought.⁵² Operation Crown, the largest operation of the war to that point, saw the Greek Army achieve a methodical series of successes against a well-armed and heavily fortified enemy in a region that mitigated the advantages of aerial and artillery capabilities.⁵³ The operation was extremely taxing, and during the six week campaign General Van Fleet personally relieved several senior Greek officers for failing to be sufficiently aggressive.⁵⁴ Despite the challenges, Grammos was taken and the surviving DAG elements were forced into full retreat to their safe havens of Albania.⁵⁵ The perception of this victory validated General Van Fleet’s focus on professionalizing the Greek Army, but illustrated that there was much work left to do. Throughout the fall, DAG forces infiltrated new parts of Greece along the Greek-Yugoslav border had resumed guerrilla tactics with considerable success. During this period, the Greek senior military leadership repeatedly proved far too passive. Eventually, Van Fleet and his advisors secured the authority to force retirement upon several senior Greek officers who failed to perform.⁵⁶

⁵¹ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 177–179.

⁵² Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 177.

⁵³ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 177.

⁵⁴ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 180.

⁵⁵ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 179.

⁵⁶ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 180.

Throughout the winter of 1948, American advisors focused on training the quickly expanding Greek Army units, while facilitating the integration of American material support that further improved the comparative advantage the Greek Army enjoyed over their communist adversaries. The DAG resurfaced rapidly however, and atrocities in the rural regions became more common resulting in the communists losing popular support and forcing them to resort to kidnapping recruits and raiding Greek towns for supplies. In early 1949, Operation Pigeon cleared the Peloponnese islands of DAG forces, largely destroying communist resistance efforts in the southern region of Greece and further validating the newly increased capacity of the Greek Army. Greek units were becoming more responsive, acting quicker at all levels, and tactically destroying guerrilla forces in battles that were becoming increasingly one sided.

In 1949 three significant changes in the environment brought an end to the Greek Civil War. First, increasingly competent Greek Army units were becoming more aggressive, led by officers selected and trained by the American Advisors. These new leaders replaced senior leaders identified as the most significant deficiency of the Greek Army. Bolstered with new equipment from America, increased technical expertise and more aggressive leadership, the Army was developing rapidly.

Second, the communist guerrillas still enjoyed limited freedom of movement and had the ability to mass and attack remote villages to kidnap recruits and supplies, and intimidate the populace. In June of 1949 a joint initiative between the Greek Army, the Constabulary and the JUSMAPG began a village defense initiative to allow villages to defend themselves.⁵⁷ The move was highly controversial, but early successes on a limited scale quickly validated the concept. In addition to denying the insurgent elements resources, the initiative increased credibility and legitimacy of the Greek government in regions where social fissures led to a highly polarized population that saw the communist attacks as implicit evidence of the government's lack of concern for certain regions and ethnic groups. The village defense initiative also solved, to some extent, the Greek Army's most significant operational challenge of securing contested regions.

⁵⁷ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 210.

Finally, external factors associated with the emerging Cold War doomed the Greek communists when the Soviet Union broke of ties with Tito of Yugoslavia and directed Albania and Bulgaria to cease their support and safe haven. The DAG became a victim of the escalating tensions between Washington and Moscow as Stalin saw the danger in overt support to communist revolutions in nations allied directly to America and Western Europe.

Operation Torch, initiated on 10 August 1949, was intended to end the war by destroying the remaining communist guerrilla elements. With several divisions maneuvering, the Greek Army spent the remainder of the month seizing key terrain, clearing previously contested areas throughout northern Greece and isolating remaining resistance units to avoid their retreat into their historical cross border safe havens. Following Operation Torch, smaller operations continued through the rest of the year. The bitter winter and lack of material support doomed the guerrillas. By mid-1950 the Greek Army demobilized and JUSMAPG ended its mission. In a 1950 editorial, The Washington Star summarized the victory succinctly:

It looks as though the calculated risk which President Truman decided to take in Greece is beginning to pay real dividends. The decision was made, the stand was taken, the difficulties were overcome by patience and hard work, and the onward march of communism in that part of the world was stopped.⁵⁸

B. HISTORICAL CONTEXT

Two aspects of the Greek Civil War are highly significant in the context of the use of metrics in IW. First, an understanding of the enemy illuminates how the tactics employed by the advisors fit the situation. Second, the external stakeholder influence on the conflict must be considered as it illustrates the ways and means available to the JUSMAG advisors. These unique aspects of the GCW facilitate an assessment of how metrics influenced the conflict.

⁵⁸ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 220.

The DAG was an insurgent movement that held its roots in Greek communist resistance groups formed in the Second World War. The DAG was not a “popular” insurgent group and thus did not enjoy the luxury of being “part-time guerrillas.” Most of the fighters had been subjected to intense re-education in safe havens away from Greece, and once in the field, lived as a military unit unattached to the people in the region. This ideological and familial dissonance allowed the Greek government to frame the communists as criminals and referred to their organizations as “bandits.” This image was reinforced as the guerrillas terrorized the populace for supplies, kidnapped recruits, and killed local leaders. The stark separation between the populace and the insurgent elements ensured the DAG could not “hide in plain sight” among the villages like population based insurgencies in history. Additionally, the DAG was highly organized and sought to formalize its structure, assigning unit designations and complex chains of command to the disparate elements. The DAG was organized as a conventional infantry army, with divisions, brigades, and battalions, and standardized equipment down to platoon mortars and crew served weapons.⁵⁹ An illustration of this was following the major defeat in the Grammos Mountains where the DAG massed its available combat power in a failed attempt to repel the Greek Army. At this critical period, the leader of the DAG military, Markos Vaifides, was removed from the organization in a bitter internal struggle. A committed, Moscow educated, life-long communist, Markos saw the situation for what it was and had advocated for a higher degree of decentralization. Following their narrow escape from a massive defeat in Operation Crown, Markos was deposed from his position of leadership by the KKE president, Nikolas Zacharidas, for the military failure in the Grammos. The irony of this internal struggle lay in the perceptions of Zacharidas himself who, in a state of delusion, couldn’t reconcile the reality of the DAG military inferiority with his own dogma rooted in the false logic that the communist forces were still the single most capable military element in Greece, as they had been in the waning days of 1945. Sharply critical of Marcos’s guerrilla tactics throughout the campaign “Zacharidas published an article in the underground DAG

⁵⁹ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 160.

magazine, *The Democratic Army*, in which he advocated reshaping the guerrilla force along conventional lines.”⁶⁰ This notion certainly found no objection from the Greek Army or JUSMAPG, which welcomed every opportunity to prove the fallacy of Zacharidas’s perspective and meet the insurgents in conventional battle where their superior training, equipment and capabilities could be brought to bear.⁶¹ Additionally, Zacharidas’s conventional focus further separated the insurgents from the populace, thus aiding the Greek Army and JUSMAPG in winning the overarching IW fight.

A second driving factor in the GCW happened far removed from the state or counter state order of battle. The western Allies were aware of the growing menace of communist expansion but neither they nor Moscow had clearly identified a strategy for foreign policy in the newly polarized post-war world order. The U.S. developed the Marshall Plan and Truman Doctrine, which rapidly transformed how America would interact with her allies. Conversely, Stalin espoused the glories of revolution worldwide and universal Soviet support to oppressed people everywhere. In reality, both sides were exhausted from the massive price of defeating the Axis powers. While Washington and Moscow sought to consolidate their power in the new environment, Greece became a test bed for their foreign policies and an experiment to determine how invested each nation was in the burgeoning ideological struggle between western democracy and communism.

C. NATIONAL IMPERATIVE

The JUSMAPG mission in the GCW held a low national priority for a variety of reasons. The reasons revolved around developing national priorities, and how American foreign policy would progress in the post war era. Secretary of State Marshall understood that Greece and Turkey represented the first of many future contentious foreign aid and military endeavors to oppose communism. The Marshall Plan for all of Europe was hotly disputed, so much so that some congressional leaders who wanted a

⁶⁰ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 181.

⁶¹ Joint U.S. Military Advisory and Planning Group (Greece), *JUSMAPG Report*, (U.S. Department of Defense, 1950).

more isolationist approach took to defaming General Marshall directly. Senator William Jenner of Indiana was perhaps the most virulent stating:

General Marshall is not only willing, he is eager to play the role of a front man, for traitors. Unless he, himself (Marshall) were desperate, he could not possibly agree to continue as an errand boy, front man, stooge or a co-conspirator for this administration's crazy assortment of collectivist cutthroat crackpots and Communist fellow traveling appeasers.⁶²

The direct opposition to the Truman Doctrine and the Marshall Plan was mostly due to the associated costs and a hesitancy to be overly involved with world affairs following WWII. The national consciousness was only beginning to become aware of what life, as one of two ideologically opposing superpowers, would be like. JUSMAPG was simply too minor to draw strong national interest in relation to other matters at hand.

The scope of JUSMAPG's mission was indicative of the low national imperative it held. After WWII, advising was simply not considered as important as active ground combat. The support mission was viewed as exactly that, a military expression of the other financial and government support going on through Europe at the time. Policymakers were not invested in the immediate success of the mission; support to the Greek government was enough, especially if costs and casualties were kept relatively low.

Despite the lack of national level attention from the American people and national level leaders, President Truman recognized the significance of Greece and resolved to act, as he recorded in his memoirs:

Greece needed aid, and needed it quickly and in substantial amounts. The alternative was the loss of Greece and the extension of the Iron Curtain across the eastern Mediterranean. If Greece were lost, Turkey would become an untenable outpost in a sea of Communism.⁶³

⁶² Mere Miller, *Plain Speaking: an Oral Biography of Harry S. Truman* (New York: Berkley Publishing Company, 1974), 237.

⁶³ Harry S. Truman, *Memoirs: Years of Trial and Hope, 1946–1952* as quoted by Paul Braim, *The Will to Win* (Annapolis, MD: Naval Institute Press, 2001), 181.

Despite the opposition and general national disinterest, JUSMAPG was formed as a means to meet President Truman and Secretary Marshall's intent, with no timetable for success or driving national imperative to succeed immediately.

In discussing national imperative and the effects of metrics, the low national imperative allowed for less focus on measurements of agent. The lack of pressure to achieve immediate results allowed JUSMAPG to evaluate the situation and measure success and progress based on the environmental conditions that the organization faced, rather than in an internal manner that would produce a rapid quantifiable response to demands for success. The result was illustrative of the relationship between national imperative and immediate assessment, demonstrating that the metrics JUSMAPG selected allowed the time and latitude to select a combination of measures that articulated the state of the environment in post-WWII Greece.

D. U.S. MILITARY ORGANIZATION IN THE GREEK CIVIL WAR

The initial manning of JUSMAPG was ninety-nine officers and eighty soldiers. This miniscule force was only assigned down to the division level in the Greek Army and Hellenic Royal Navy and Air Force. By 1948 the number expanded to 400 total advisors, refocused by JUSMAPG directive to the combat divisions with an emphasis on those units conducting ground operations. While the advisors were not allowed to carry weapons of any kind, they were expected to accompany their counterparts into battle. The weapons status was meant as provision to ensure that these advisors were assisting rather than commanding. Despite this, the 182 advisors in direct combat during Operation Crown appear to have armed themselves in dire situations and even assumed command of company-sized elements in the most heated moments of the battle to capture the DAG stronghold in the Grammos Mountains.⁶⁴

LTG Van Fleet maintained a continuous emphasis on combat leadership and individual and unit proficiency throughout the GCW. He organized his JUSMAPG force to best accomplish this developmental process. With advisors embedded at the tactical,

⁶⁴ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 161–164.

operational and strategic level JUSMAPG could assess the changes in Greek capability as well as supervise the planning and execution of their operations. This force structure was critical because the advisors were intimately involved with the development and training of new Greek units. This requirement to supervise the initial training of Greek soldiers, many of them conscripts, and then accompany them into the fight led to a blend of metrics for the evaluation of each effort. JUSMAPG employed a variety of metrics to measure results, including both measures of effectiveness and activity in addition to outcomes that articulated success and progress of the Greek forces.

The force package selected for the GCW was an example of appropriate fit and flexibility, as demonstrated by the transition from exclusively material support, which was initially offered, to American military advisors who influenced the course of the war. The Greek monarchy may have had the most significant influence on this process. When the Greek Army was acting unilaterally, Queen Frederika herself asked Secretary Marshall for combat advisors, confirming initial reports that equipment alone was insufficient based on the inability of Greek military leadership at all levels.⁶⁵ After an assessment by the Joint Chiefs concurred with the Greek monarch, JUSMAPG was formed and combat advisors became the main effort.

From inception, JUSMAPG balanced quantitative and qualitative assessments of success and progress. For the JUSMAPG commander, the qualitative measurements became of paramount importance. Upon his initial meeting with Marshall to receive the assignment, LTG Van Fleet was asked if the conflict held even a possibility of success for the Greek government. Van Fleet's response summarized his philosophy for evaluating the qualitative aspects of his new assignment. He stated that if the Greeks had "the will to win" he could train them to be victorious.⁶⁶ Van Fleet echoed this sentiment as he articulated his philosophy for JUSMAPG to Marshal Alexander Papagos, the Greek senior commander installed in the 1948 change of leadership. In correspondence to Papagos that he also relayed to Washington, Van Fleet stated:

⁶⁵ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 162.

⁶⁶ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 156.

Guerrilla warfare is without doubt the most difficult in which any military force can engage... The combat value of a unit is determined in great measure by the soldierly qualities of its leaders and members and its will to fight.⁶⁷

This command emphasis on the qualitative style of reporting illustrates that JUSMAPG was able to articulate its success and progress beyond measuring agent activity, which in this case would be enumeration of actions performed by the advisors themselves. Certainly, quantitative measurements of both U.S. advisor and Greek Army activity were employed and reported but the emphasis remained on achieving success through enabling the Greeks to improve their capacity to defeat the communists as assessed qualitatively. This allowed significant latitude for the advisors on the ground, and in that manner avoided an inward focus that would have been detrimental. As the criteria for success was the quality of the Greek forces rather than the actions of JUSMAPG itself, the organizational tendencies reflected a focus on outcomes. While maintaining a clear structure, JUSMAPG did not overly standardize and formalize processes. The reporting required of JUSMAPG advisors, and what LTG Van Fleet in turn reported to national leadership was indicative of the organizational principles of professionalism, mutual adjustment and innovation, relying on the professional opinion of advisors to describe events in narrative form to articulate the state of the environment and the status of the conflict.

E. THE NATURE OF METRICS

With organizational preferences that empowered qualitative assessment, the JUSMAPG effort in the GCW clearly favored measuring outcomes. This is not to say that measures that quantified activities were not employed. JUSMAPG paid close attention to the numbers it produced, or more appropriately, the numbers the Greek Army produced under JUSMAPG guidance. In training environments, the numbers of new recruits trained was reported in great detail to JUSMAPG headquarters and on to Washington, but the emphasis remained on ensuring quality training and increased

⁶⁷ Paul F. Braim, *The Will to Win: The Life of General James A. Van Fleet* (Annapolis, MD: Naval Institute Press, 2001), 190.

baseline competency of the Greek rifleman and junior leader to address the concerns JUSMAPG had regarding the general incompetence of Greek soldiers. In operations, effects on enemy forces were tallied in exacting detail, and the number of enemy killed and captured became a key statistic reported to President Truman. The appropriateness of these quantitative measurements will be discussed in the next section.

Qualitative measurements, especially of Greek units and their commanders were emphasized from the highest level of JUSMAPG. The advisors routinely assessed the strengths and weaknesses of their counterparts and made replacing inept or timid commanders a top priority. This assessment was determined by the unit's actions in battle and by the evaluation of the advisor on the ground. The actions of the Greeks were what mattered to JUSMAPG commanders, not the processes and actions taken by the advisors. In this manner, the qualitative assessment became the organizational tool to evaluate the environment. Outward focus is detailed in the reporting process as JUSMAPG provided weekly, monthly and quarterly reports to the external stakeholders in the Greek government and back to national policymakers in Washington.

JUSMAPG demonstrated adhocratic organizational tendencies throughout the GCW. The outward focus on the war effort and the status and capability of the Greek Army allowed for assessments that drew conclusions from the environment, rather than the activity performed by the advisors. The ability to avoid machine bureaucracy limited the amount of emphasis on quantitative measurements. These measurements were used to gauge effects on the environment rather than evaluate agent activity, demonstrating the ability to employ qualitative assessment when an organization is not inhibited by an over reliance on the tendencies of a machine bureaucracy. Avoiding tendencies that resemble a machine bureaucracy, the JUSMAPG mission was able to focus outward on effects in the environment rather than agent activity. This is also demonstrated by the JUSMAPG performance in terms of hypothesis five, stating that if machine bureaucracy increases in IW then the military organization will shift to evaluating quantitative assessments of agent activity. Even when JUSMAPG expanded, there was still focus on qualitative measurements, indicating that even with numerical growth, the bureaucratic tendencies of the organization did not shift.

F. APPROPRIATE/INAPPROPRIATE METRICS IN THE GREEK CIVIL WAR

To assess if the quantitative metrics employed in the GCW were appropriate, it is critical to understand the nature of the environment, particularly the enemy disposition. Since the DAG was hierarchically organized and did not benefit from large popular support the combat power of the insurgency was quantifiable in ways not typically available to counterinsurgent forces engaged in IW. In this manner, the DAG forces could be assessed in terms of modern military intelligence assessments, which enabled generally accurate intelligence to be predictive of their disposition, composition, and strength. In Operations Crown and Pigeon the quantitative assessments of enemy killed and captured was a generally accurate indicator of success because the enemy was structured in a manner that accommodated such measurements. In a more popular insurgency with decentralized insurgent structure, these results would not have been as telling. The quantifiable measurements of Greek Army activity in combat did serve a purpose in this case. The JUSMAPG reports to Washington summarized enemy killed and captured as well as Greek Army activity in geographic and numerical quantification, all of which served a purpose when empowered by insightful assessment by the authors who could relay the context of what the numerical assessments indicated. In this manner, the quantitative measurements reported in the GCW were appropriate because they served to illustrate JUSMAPG priorities, and articulated in a manner that was reflective of the state of the environment. Also significant about this case of qualitative measures in IW is that these metrics were employed to inform the assessment of qualitative priorities, not as stand-alone indicators of success or failure.

The qualitative measures of effectiveness that JUSMAPG favored were appropriate for the GCW. The Greek Army and American advisors benefited from the status of the DAG in Greece. Separated ideologically and often physically from the populace, the DAG had limited means to advance their position except through armed conflict, which became less and less tenable as the war progressed. JUSMAPG was able focus outward, assess its partners, and develop the capacity needed to find, fix and finish a dwindling enemy army. Detailed professional assessments of Greek Army leadership

and skills were the best way to ensure success on the battlefield by providing the advisors the latitude to articulate the situation in both training and in combat.

G. CONCLUSION

JUSMAPG benefitted from a variety of circumstances that enabled its measurements to be effective in the Greek Civil War. The low U.S. national imperative allowed the organization latitude to develop the Greek Army over time, and to shape missions and training without time constraints from external stakeholders. Additionally, the military organization was allowed to be flexible and adaptive, and built to fit the situation on the ground. Compared to other American IW conflicts, where combat units structured for conventional conflict must adapt their organizational tendencies in an attempt to meet the challenges of IW, JUSMAPG was built for the mission in Greece.

The circumstances of the war also favored the advisors as the DAG actions and policies prevented them from employing several tactics that in other cases would benefit an insurgent force. The advisors were successful in meeting the requirement of increasing Greek capacity to a level where they could defeat their enemy, rather than subdue an entire region or police the populous. Because JUSMAPG could afford to focus on the Greek Army relative to the DAG the advisors could employ years of conventional combat and training experience garnered in WWII. This experience is what provided the expertise necessary for the critical assessments and qualitative reporting that was the key measurement of success and progress.

It must also be said that DAG suffered from a dramatic loss of external support following Stalin's decision that supporting the Greek communists was no longer in the best interests of the Soviet Union. The early stages of the Cold War and directives from the U.S.S.R to Bulgaria and Albania eventually ensured that the DAG was on its own, and eventually would be attrited by the rapidly developing, heavily resourced Greek Army.

In summary, the JUSMAPG experience is an illustration of qualitative assessments effectively employed in IW. The advisors were not Special Forces, cultural experts, or native speakers. They were, however, professional soldiers who were able to achieve success because they were enabled by their chain of command to build capacity against an adversary who had lost external support. By articulating an approach focused on quality leadership, teaching decisive action at all levels, and aggressiveness, the advisors succeeded in their mission. Measuring those qualities was the result of qualitative assessments, articulated in a manner no measurement of agent activity could capture. The Greek Civil War was an irregular conflict that demonstrated the potential of qualitative assessment, patience, and understanding in evaluating the environment.

IV. U.S. INVOLVEMENT IN VIETNAM 1965–1968

Any examination of the U.S. military's development and use of metrics in IW requires an analysis of its involvement in Vietnam for two primary purposes. First, the protracted and bitter struggle to assert political control over the nation's population between competing Vietnamese factions represents the essence of IW conflict as conceived in military doctrine and literature. Second, the increasing degree and duration of American military participation in this Vietnamese struggle, from its beginnings through the consolidation of Communist control, appropriately marks this case among the most significant historical instances of U.S. military involvement in IW.

While the U.S. military's involvement in the Vietnam conflict spanned nearly 25 years and five presidential administrations, this study focuses exclusively upon the period between 1965 and 1968. This time interval represents America's fullest commitment in the conflict, extending U.S. military control over the operational environment to such an extent that it intentionally minimized the contribution of indigenous forces.

With these conditions in place, the effects of the U.S. national imperative toward Vietnam conflict, the organizational behaviors and characteristics of the U.S. military, and their combined impact on the development and use of metrics reach their fullest expression. Correspondingly, conclusions drawn from this period yield greater insight into how and why the military chose its criteria for assessing its progress.

We selected this case because the national imperative of the conflict reached its highest peak among the public and political leadership following significant events in 1964. With this high degree of imperative, the size of the military force package increased substantially, which accordingly increased the organization's machine bureaucratic tendencies. Combined, these two developments influenced the force package's development and application of inappropriate measurements for IW, which further obscured its understanding of the environment and the root causes of the conflict. Thus, the military force package proved unable to overcome the pressures imposed by the high national imperative and its organizational characteristics.

To assess this chain of events, the case study will provide a brief historical narrative summarizing the U.S. military's involvement in Vietnam in order to provide greater context for the selected time interval under examination. Following this summary, the study will highlight important contextual details that pertain to the time period selected and then proceed to outline and highlight historical examples that illustrate the degree of national imperative, the type of organizational force package selected, and the assessments it developed and employed.

A. HISTORICAL NARRATIVE

In stark contrast to the eventual commitment of over 500,000 personnel by 1968, America's military involvement in Vietnam began modestly in 1950 with a small contingent providing assistance and advisement to French forces attempting to reassert their colonial control after WWII. Over its nearly 25-year commitment, the U.S. military's role, efforts, and organization shifted dramatically as events in Vietnam, the region, and the United States influenced political and popular opinion about the conflict.

1. Phase I – Early Advisory Years, 1950–1955

Significant U.S. military involvement in Vietnam after WWII began under the Truman administration with the establishment of a small Military Advisory and Assistance Group (MAAG) focused primarily on assisting the French in their struggle to regain control of their former colonial holding.⁶⁸ While the French largely dismissed the advisory component of this small contingent, it gladly accepted U.S. funding and equipment, given the rapidly growing costs of the conflict and its post-WWII reconstruction obligations.⁶⁹ Despite this frustrating relationship with the French, several significant events shaped U.S. political and popular concerns about the Far East and South East Asia, and thus reinforced U.S. support and investment in Vietnam.

⁶⁸ Ronald H. Spector, *Advice and Support: The Early Years, 1941–1960* (Washington D.C.: Center of Military History, United States Army, 1983), 116.

⁶⁹ George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 18–19.

The relatively recent victory of the Chinese Communists over the Nationalists in late 1949 reinforced existing United States' fears of global communist expansion masterminded by the Soviet Union.⁷⁰ North Korea's invasion of South Korea in the summer of 1950 and the subsequent participation by Communist Chinese forces further heightened these concerns and increased U.S. commitment to countering communist influence around the world, albeit with greater emphasis on Western Europe.⁷¹ While the termination of hostilities in Korea during the summer of 1953 stopped combat casualties, the U.S. perceived this turn of events as providing China a greater opportunity to support their communist neighbors in North Vietnam. Finally, France's devastating loss at Dien Bien Phu, the subsequent signing of the Geneva Accords, and the beginning of French disengagement from Vietnam forced the U.S. to make a decision on the value of South East Asia and the imminence of the communist threat.⁷²

However, as much as the U.S. sought to avoid involvement in another war following the conclusion of WWII and Korea, the cumulative effect of this series of events prompted a strong, and growing, national imperative for action. This national imperative would continue to grow in the subsequent phases of U.S. involvement during Eisenhower's administration and, along with it, the investment of U.S. forces, equipment and funds into the conflict.

2. Phase II – Advisory Years, 1955–1964

As the years following the 1954 Geneva Accords brought increased social and political disorder among the Vietnamese, the U.S. military steadily increased its presence and involvement in the conflict under the administrations of Eisenhower, Kennedy and Johnson. The divisive and contentious environment that characterized Vietnam's history

⁷⁰ Ronald H. Spector, *Advice and Support: The Early Years, 1941–1960* (Washington D.C.: Center of Military History, United States Army, 1983), 96.

⁷¹ Ronald H. Spector, *Advice and Support: The Early Years, 1941–1960* (Washington D.C.: Center of Military History, United States Army, 1983), 123, 128, 167.

Robert Endicott Osgood, *Limited War: The Challenge to American Strategy* (Chicago, IL: University of Chicago Press, 1957), 169–171.

⁷² Ronald H. Spector, *Advice and Support: The Early Years, 1941–1960* (Washington D.C.: Center of Military History, United States Army, 1983), 198–199.

became increasingly unstable and complex following the Accord's arbitrary partitioning of the north and south at the 17th parallel.⁷³ Social unrest, political instability, and economic fragility characterized the essence of this environment. Combined, these conditions formed the essence of the struggle that would continue through 1975, and encouraged the reemergence and organization of the Vietminh, evolving later into the National Liberation Front (NLF) and its armed wing, the Viet Cong (VC). These organizations, supported by the North, began to pose a serious challenge to South Vietnamese authority and control.

The U.S. military's primary effort in this phase was to develop, advise and assist the Army of the Republic of Vietnam (ARVN) as it opposed this growing threat. To this end, the U.S. military expanded its deployment from a force size of just over 500 personnel in 1960, to over 23,000 by 1964.⁷⁴ Moreover, the relatively small Military Advisory and Assistance Group (MAAG) that headed U.S. advisory efforts at the outset of American involvement saw itself supplanted by the formation of the much larger Military Assistance Command, Vietnam (MACV) in early 1962. This larger organization assumed control of all U.S. forces in country, which included responsibility and oversight for all advisory efforts, as well as coordination and engagement with key South Vietnamese government and security force leaders and institutions.⁷⁵ Despite this significantly increased level of involvement and influence, conditions in Vietnam continued to worsen socially, politically and militarily.

The assassination of South Vietnam's President Diem in 1963 triggered the start of nearly continuous political violence and social instability that would result in multiple coups through the rest of this phase. Simultaneously, the Viet Cong increased its offensives through 1963 and 1964 producing several significant victories and higher casualties among the ARVN, as well as increasing U.S. losses in casualties and

⁷³ George C. Herring, *America's Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 40,46.

⁷⁴ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 13.

⁷⁵ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 14.

equipment.⁷⁶ Finally, a relatively minor (and heavily disputed) set of engagements between the U.S. Navy and North Vietnamese patrol boats in the Gulf of Tonkin during August of 1964 signaled a major decision point for the U.S. in determining its course in Vietnam. Cumulatively, these deteriorating conditions shaped U.S. perceptions to compel a significant shift in focus during the next phase of its involvement in Vietnam.

3. Phase III – America’s Full Commitment, 1965–1968

This phase witnessed the U.S. military expand its organization to reach its greatest end strength throughout the duration of the war while simultaneously assuming primary responsibility for engaging the VC and North Vietnamese Army (NVA). Beginning with a gradual introduction of ground combat forces initially intended to protect U.S. installations against the losses experienced in the previous phase, American escalation continued until it reached over 500,000 personnel in 1968.⁷⁷

With an increasingly larger force, and minimal specific strategic guidance from military and political leadership to guide operations, MACV focused primarily upon finding and destroying large units of VC and NVA.⁷⁸ MACV’s focus predictably relegated development of ARVN to a secondary priority despite the clear need for improvements evidenced by its performance in the previous phases. Likewise, securing and pacifying the population also remained a secondary priority based on the assumption that degradation of VC and NVA forces would necessarily enable and promote increased population security.⁷⁹

Although a number of major operations and innumerable smaller engagements occurred throughout the course of this phase with success at the tactical level, the U.S.

⁷⁶ George C. Herring, *America’s Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 89,110, 129, 137.

⁷⁷ Tim Kane, “Global U.S. Troop Deployment, 1950–2005,” *The Heritage Foundation*, May 24, 2006, <http://www.heritage.org/Research/Reports/2006/05/Global-U.S.-Troop-Deployment-1950–2005> (accessed June 8, 2011).

⁷⁸ George C. Herring, *America’s Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 146, 151.

⁷⁹ George C. Herring, *America’s Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 151.

could achieve no decisive victory against VC or NVA forces at the operational or strategic levels. Further, the U.S. military's concerted effort toward offensive operations and the application of overwhelming firepower allowed ARVN's capability to atrophy and contributed to the social disruption that plagued the population, thereby worsening the underlying conditions that initiated the conflict.⁸⁰ The initiation of the Tet Offensive in January of 1968 starkly demonstrated the VC and NVA's ability to mount major, coordinated offensive operations across South Vietnam for a sustained period despite the significant degree of U.S. effort and resources expended over the previous years.⁸¹ While the Tet Offensive's conclusion in February yielded considerable VC and NVA casualties, the destruction among the major city centers increased the toll on an already weakened South Vietnamese population and government, and significantly eroded U.S. domestic support for continued involvement.⁸² These results provided the primary impetus for the United States to shift its effort in the final phase of its intervention.

4. Phase IV – Vietnamization and American Withdrawal, 1969–1973

The final phase of U.S. involvement in Vietnam witnessed the gradual withdrawal of its military forces and a renewed emphasis on developing ARVN capabilities, commonly referred to as 'Vietnamization', and the Accelerated Pacification Program to secure the population.⁸³ These goals reflected U.S. desires to return primary responsibility for the war back to the South Vietnamese government and military. With LTG William Westmoreland recalled to the United States, General Creighton Abrams assumed command and implemented these new priorities with a similar lack of strategic guidance from senior political and military leaders.⁸⁴ Abrams supervised these efforts

⁸⁰ George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 155, 161.

⁸¹ George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 183–185.

⁸² George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 188.

⁸³ George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 210.

⁸⁴ George C. Herring, *America's Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 206.

while maintaining a considerable focus on offensive operations, albeit in modified form, despite the increasingly dramatic reduction of military forces throughout this phase. U.S. domestic support continued to collapse while President Nixon insisted on a gradual U.S. force withdrawal to allow sufficient time for ARVN capabilities to increase, to prevent the catastrophic collapse of the government, and to maintaining pressure on the North for a negotiated a peace settlement.⁸⁵ MACV's effort to apply this pressure largely failed, as indicated by the massive conventional attacks launched by the North Vietnamese in 1972.⁸⁶ Although the South Vietnamese held out, U.S. involvement rapidly ended with a treaty signed in January of 1973.⁸⁷ The majority of U.S. forces finally withdrew in March of 1973, thus concluding the U.S. military's direct contribution to the political struggle over Vietnam's future.⁸⁸

B. HISTORICAL CONTEXT

This case focuses its analysis between the years 1965 and 1968, beginning with the U.S. response to the Gulf of Tonkin incident in late 1964 and concluding with its response to the communist Tet Offensive in early 1968. As outlined in the preceding summary, America's commitment and military involvement in Vietnam reached its greatest levels during this period, as expressed by the amount of resources invested into the conflict and the increasing degree of control it asserted over the effort. These two dynamics permitted the development of an extraordinarily large U.S. military force package that assumed near total responsibility for the conflict waged against the communist forces. Developments involving national imperative, the military

⁸⁵ George C. Herring, *America's Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 222–228.

⁸⁶ George C. Herring, *America's Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 240.

⁸⁷ George C. Herring, *America's Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 250.

⁸⁸ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 219.

organization, and influential stakeholders shaped the context of this specific time interval and thus affected the military organization's decisions and actions with respect to the casual chain of metrics development.

The years leading up to 1965 generally reflect a high degree of national imperative with respect to U.S. concerns about the expansion of communist influence. Beginning with the significant events of the early 1950's, public sentiment, and especially political sentiment, toward stemming and countering communist influence continued to grow. Subsequent crises in the early 1960's continued to foster this growing imperative beginning with Berlin in 1961, and the Cuban Missile Crisis in 1962. Despite this wider concern regarding communist expansion, much of the American public remained unaware of U.S. involvement in Vietnam between the 1950's and early 1960's.⁸⁹ However, the increasing U.S. losses between 1963 and 1964, as well as the shocking violence and unrest provoked by the Buddhist revolts and Diem assassination, shifted this heretofore broadly focused imperative toward the ongoing efforts in Vietnam. Finally, the Gulf of Tonkin incident galvanized U.S. political leaders' demands for decisive action and increased public awareness and concern regarding the conflict.

Additionally, MACV's rapidly enlarged size and expanded responsibilities together indicated an increasing degree of U.S. political concern over Vietnam. This concern amplified political pressure exerted on the organization and encouraged increasingly bureaucratic behavior to manage its operations. While subordinate to U.S. Pacific Command, senior military and political leaders, including the Joint Chiefs of Staff and senior Department of State officials among others, communicated directly with MACV, outside the bounds of its normal command and control relationships.⁹⁰ While this certainly increased the organization's political influence, the unusually direct interface with the highest levels of leadership also generated significant pressure for reports of progress and success over the coming years.

⁸⁹ William L. Lurch and Peter W. Sperlich, "American Public Opinion and the War in Vietnam," *The Western Political Quarterly* 32, no. 1 (March 1979): 21-22.

⁹⁰ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965-1973* (Washington D.C.: Center of Military History, United States Army, 1988), 14.

Before MACV's significant growth, it initially restricted itself to an administrative role in assigning and supporting its advisors within the South Vietnamese military structure. Rather than coordinating and directing their individual efforts, it relied primarily on the judgment of its advisors to decide how to execute their mission.⁹¹ Thus, the U.S. advisory effort operated in a significantly decentralized manner in the earlier phases of its involvement.⁹² General Westmoreland initially embraced this organizational model when he took over MACV later in 1964.⁹³ This decentralized manner of coordination would change dramatically, however, as the organization grew and American military advisors incrementally increased their integration within South Vietnamese forces from higher headquarters down into tactical units.⁹⁴ This enhanced integration accordingly increased their access and influence as well as their exposure to combat.⁹⁵ Predictably, U.S. headquarters and support infrastructure continued to expand their size and reach to accommodate the dramatically increasing number of advisors and support units deployed to the conflict between 1960 and 1965.⁹⁶ Combined, these developments served to increase the degree of influence and control wielded by the U.S. military thereby increasing its bureaucratic characteristics and mechanisms considered necessary to coordinate and supervise this larger force. In this way, MACV began to exert more centralized control by standardizing and formalizing its various advisement efforts that previously were left to the individual judgments of its advisors.

Finally, two influential figures wielded extraordinary influence in shaping the force package and its behaviors between 1965 and 1968. Secretary of Defense Robert

⁹¹ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 57.

⁹² Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 57.

⁹³ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 58.

⁹⁴ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 14.

⁹⁵ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 59.

⁹⁶ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 14.

McNamara, appointed in 1961 by President Kennedy, proved to be an especially important figure both in terms of influencing the force package developed, and also in how it assessed its progress. Together, McNamara's education, military service, and business experience profoundly shaped his preference for a rigorous, systems analysis and operations research approach to assessing progress.⁹⁷ In this way, he would reinforce the importance of obtaining quantitative assessments from the military force package.

Appointed as MACV's commander in 1964, General William Westmoreland also exerted enormous influence on the military organization in Vietnam between 1965 and 1968. Westmoreland's successful rise through important command and staff positions within the conventional Army, including combat commands in WWII and Korea, inevitably reinforced strong confidence in the Army's bureaucratic processes, systems and adherence to its doctrinal methods of prosecuting war.⁹⁸ With this background and perspective, Westmoreland would influence the development of the military organization's behaviors and characteristics in Vietnam. Combined, these events and influences established conditions that greatly affected the metrics development causal chain between 1965 and 1968. The following sections will describe how national imperative and MACV's organizational behavior influenced its metric development and balance this against an assessment of their suitability to the unique context of the conflict.

C. NATIONAL IMPERATIVE

The degree of national imperative driving U.S. military involvement in Vietnam beginning in 1965 was high and therefore encouraged an increasingly larger investment of resources into the conflict, as described by the metrics development causal chain in Chapter II. First, senior political and military leaderships' unusually direct access to MACV headquarters, circumventing its official chain of command, greatly increased

⁹⁷ Tim Weiner, "Robert S. McNamara, Architect of a Futile War, Dies at 93," *New York Times*, July 6, 2009, <http://www.nytimes.com/2009/07/07/us/07mcnamara.html?pagewanted=all> (accessed October 29, 2011).

⁹⁸ Craig R. Whitney and Eric Pace, "William C. Westmoreland Is Dead at 91; General Led U.S. Troops in Vietnam," *New York Times*, July 19, 2005, <http://www.nytimes.com/2005/07/19/international/asia/19westmoreland.html?pagewanted=all> (accessed October 29, 2011).

pressure for reports of progress and success throughout the period. Second, the significant political action taken in the spring and summer of 1964 reflected this high degree of national imperative and directly facilitated the increased investment of resources and shift in strategy in 1965. Third, the public response to the events that precipitated this political action further reflected the high degree of imperative that initiated this phase of U.S. involvement in Vietnam.

The 1964 National Security Action Memo (NSAM) 288 and Gulf of Tonkin Resolution stand out as two important political actions that significantly shaped U.S. involvement in Vietnam in 1965 and beyond.⁹⁹ These two measures indicate the larger political imperative of this period. Within NSAM 288, President Johnson approved recommendations for increased U.S. military action in Vietnam as proposed by Secretary McNamara in his report dated March 16, 1964.¹⁰⁰ This report, and its recommended actions, represented a significant escalation of U.S. involvement and a departure from the generally more constrained advisory years in the previous two phases.¹⁰¹ This policy approval by President Johnson reflects the increasing U.S. political drive to take decisive action following the significant social, political, and military deterioration in South Vietnam between 1963 and 1964.

Public Law 88-408, more popularly known as the Tonkin Gulf Resolution, represents a significantly higher degree of imperative following controversial engagements between North Vietnamese patrol craft and U.S. Navy destroyers. Passed by Congress in August 1964, the wording of this landmark legislation was sufficiently broad as to permit direct U.S. military intervention against communist force in Vietnam

⁹⁹ Scott Gartner, *Strategic Assessment in War* (New Haven , CT: Yale University Press, 1997), 119.

¹⁰⁰ McGeorge Bundy, "National Security Action Memoranda NSAM 288: Implementation of South Vietnam Programs ," *Lyndon Baines Johnson Library and Museum: National Archives and Records Administration*, March 17, 1964, <http://www.lbjlib.utexas.edu/johnson/archives.hom/nsams/nsam288.asp> (accessed October 29, 2011).

¹⁰¹ Robert S. McNamara, "Memorandum From the Secretary of Defense (McNamara) to the President," *Foreign Relations of The United States, 1964-1968*, U.S. Department of State Office of the Historian, March 16, 1964, <http://history.state.gov/historicaldocuments/frus1964-68v01/d84> (accessed October 29, 2011).

well beyond the scope of its previously constrained advisory role.¹⁰² While the permission for the use of force is significant in itself, the manner in which Congress passed this legislation is far more indicative of the political demand for action. For the otherwise highly contentious issue of applying direct military force, the House of Representatives achieved unanimous approval in approximately 40 minutes, while the Senate approved the measure nearly unanimously (48–2) in less than ten hours.¹⁰³

Moreover, public support for this increased level of involvement appeared to match this political expression of support with Johnson’s approval ratings in the Harris Lewis polls increased from a low 42 percent up to 72 after this series of events.¹⁰⁴ Likewise, American public support for involvement in Vietnam grew to reach its highest levels in 1965.¹⁰⁵ While public support for involvement in Vietnam would begin to dissipate through 1966 and 1967, their support for an escalation of forces simultaneously grew and peaked by late 1967.¹⁰⁶ While this may initially appear counterintuitive, this suggests a strong public desire for decisive action in Vietnam.

With these indicators of political and public support for decisive action in Vietnam, the degree of national imperative toward Vietnam clearly appears high. This high degree of national imperative increased the demands for reporting from senior military and political leaders, facilitated by an abnormally close relationship between the command and Washington. Simultaneously, it increased the amount of resources invested into the U.S. military organization in Vietnam, thus expanding its size and level of involvement in the conflict.

¹⁰² 88th Congress of the United States of America, “Transcript of Tonkin Gulf Resolution (1964),” *Our Documents: A National Initiative on American History, Civics, and Service*, August 10, 1964, <http://www.ourdocuments.gov/doc.php?flash=true&doc=98&page=transcript#> (accessed October 29, 2011).

¹⁰³ George C. Herring, *America’s Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 123.

¹⁰⁴ George C. Herring, *America’s Longest War: The United States and Vietnam 1950 - 1975* (New York: John Wiley & Sons, 1979), 123.

¹⁰⁵ William L. Lunch and Peter W. Sperlich, “American Public Opinion and the War in Vietnam,” *The Western Political Quarterly* 32, no. 1 (March 1979): 22,26.

¹⁰⁶ William L. Lunch and Peter W. Sperlich, “American Public Opinion and the War in Vietnam,” *The Western Political Quarterly* 32, no. 1 (March 1979): 30.

D. THE U.S. MILITARY ORGANIZATION IN VIETNAM

The U.S. military force package engaged in Vietnam between 1965 and 1968 exhibited a high degree of machine bureaucratic characteristics despite the extreme instability and complexity evident in its environment. The organization predictably relied heavily on formalizing and standardizing the actions and behaviors of its subordinate units in an effort to achieve greater coordination and process efficiency in its operations. Several important indicators amply demonstrate the organization's close reflection of the machine bureaucratic form.

Increasing an organization's size will naturally lead it to assume greater degrees of bureaucratic characteristics in order to achieve greater efficiency and control its expanded assets.¹⁰⁷ MACV's increased size forced it to allot a greater degree of time and resources to the administration of those personnel, units, and assets while simultaneously attending to the demands of its advisory, or later, combat missions. Between 1965 and 1968, the U.S. military organization under the command of MACV exploded from approximately 23,000 personnel to nearly 540,000; a staggering increase almost 24 times greater than its original size only four years earlier.¹⁰⁸ In 1965 alone, the organization's overall end strength increased nearly 800%, which included the addition of approximately four full combat divisions comprised of Army and Marine elements and their associated support units.¹⁰⁹ MACV headquarters itself nearly doubled in size in this same year reaching an equivalent strength of nearly 2 battalions, or 2,000 personnel, as it entered 1966.¹¹⁰ These first-year figures illustrate a trend that would continue over the next two years, and highlight classic indicators of bureaucratic characteristics described in Chapter 2: enlarged headquarters elements and increasing numbers of subordinate echelons.

¹⁰⁷ J. B. Quinn, H. Mintzberg and R. M. James, *The Strategic Process: Concepts, Contexts, and Cases* (Englewood Cliffs, NJ: Prentice-Hall, 1988), 293.

¹⁰⁸ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 109, 524.

¹⁰⁹ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 109.

¹¹⁰ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 50–53.

Additionally, MACV's centralized control over subordinate elements and strict adherence to doctrinally prescribed offensive operations, at the expense of other supporting efforts, represents a clear manifestation of the formalization and standardization that marked its bureaucratic characteristics. Specifically, the military force package devoted itself to directing large units to find, fix, and destroy the enemy's main force units throughout this period.¹¹¹ Beginning with the 1st Cavalry Division's engagement in the Ia Drang Valley in 1965, MACV continued with these operations throughout the duration of the period.¹¹² The organization chose this course deliberately despite years of evidence indicating that South Vietnam's problems warranted greater time and resource investment in security force development as well as population security and development. Nonetheless, MACV's resource allocation reveals its clear prioritization of offensive operations at the expense of other, arguably more vital missions including the pacification of the local population. For example, in 1968 MACV spent the equivalent of \$14 billion dollars to conduct its offensive operations while allocating only \$850 million for programs meant to support pacification and reconstruction efforts.¹¹³ The organization's nearly mechanical pursuit of finding, fixing and destroying main force enemy units at the expense of other potentially more useful endeavors reflects the highly bureaucratic characteristics of the organization. Assessing the conflict's progress largely upon the results of these offensive operations reflects an inward orientation toward its activities, consistent with the machine bureaucracy, instead of focusing outward on the clear social, political and economic needs of the environment.¹¹⁴

Furthermore, MACV demonstrated high formalization and standardization in its administrative management of the war as well. To satisfy internally derived efficiency

¹¹¹ Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986), 165–167.

¹¹² Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986), 190–191.

¹¹³ Alain C. Enthoven and K. Wayne Smith, *How Much is Enough? Shaping the Defense Program 1961–1969* (Santa Monica, CA: Rand Corporation, 1971), 294.

¹¹⁴ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 89.

goals, MACV supported personnel administration policies that rotated individuals into Vietnam rather than units who had trained and prepared together.¹¹⁵ Likewise, individuals rotated in and out of command positions of units already stationed in country and, at times, limited these tours to 6 months in order to standardize the experience level of the officer corps.¹¹⁶ Rather than working toward building experience among members of cohesive units and thereby develop greater innovation, adaptation, and understanding of their environment, the military organization sought to standardize a base level of experience throughout the force.

While the preceding section illustrates only a selection of MACV's machine bureaucratic characteristics, the dominance of its organizational expression is clear. As discussed in Chapter II, this high degree of bureaucratic behavior increased MACV's preference for assessment metrics characterizing agent activity and depicted in quantitative form. These metrics proved to be more accessible in terms of their collection and interpretation, at the expense of providing greater descriptive depth.

E. THE NATURE OF METRICS

The U.S. military force package engaged in Vietnam between 1965 and 1968 demonstrated a dominant preference for assessing its progress in quantitative terms with a focus on measurements of agent activity. As such, the MACV developed and reinforced a strong inward orientation in attempting to judge its success rather than an outward orientation that sought greater understanding of the environment. Those metrics that did attempt to assess the environment unfortunately did not contain the descriptive depth necessary to communicate a meaningful appraisal of environmental conditions. Much of

¹¹⁵ Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986), 205–206.

¹¹⁶ Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986), 205–206.

the scrutiny on MACV's assessments used during this period focus on its evaluations of combat operations with the "body count" figuring prominently as an "output" indicator of agent activity.¹¹⁷

Common assessment criteria in this realm included the number of operations conducted, enemy equipment destroyed or captured, friendly and enemy casualties, and ammunition expended. These criteria demonstrate a strong inward orientation on activity in terms of inputs and outputs, especially in quantitative terms. While these certainly demonstrate MACV's strong preference for quantitative measurements of agent activity, other reports used throughout the period provide a more interesting illustration of its assessment preferences. These also serve to underscore the organization's bureaucratic behaviors and procedures as described in the previous section.

It is significant to note that during its earlier advisory phases, MACV's assessment methods and procedures differed significantly from those used between 1965 and 1968. In the years preceding 1964, advisor assessments of their South Vietnamese partners occurred informally, often during 'face to face meetings' with supervisors and without much standardization.¹¹⁸ While clearly constrained by the limited administrative capacity of the organization's smaller staffing at that time, this approach suggests that the smaller organization demonstrated a high level of comfort with the qualitative assessments of its advisors based on their descriptions, observations and judgments. This also suggests less bureaucratic reliance on formatted reports delivered within a strict timeline.

However, the decision to increase the role and size of the military organization in Vietnam beginning in 1965 drastically changed the method and means through which the organization assessed its progress. "As the war grew in size and complexity, so did the paper work demands on individual advisors, and some were preparing as many as forty

¹¹⁷ Scott Sigmund Gartner and Marissa Edson Meyers, "Body Counts and "Success" in the Vietnam War and Korean War," *The Journal of Interdisciplinary History* (The MIT Press) 25, no. 3 (Winter 1995): 377-378.

¹¹⁸ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965-1973* (Washington D.C.: Center of Military History, United States Army, 1988), 60.

reports every month.”¹¹⁹ The Senior Adviser Monthly Evaluation Report (SAME) represents one example of these assessments focused on the South Vietnamese military.¹²⁰ This assessment reduced the otherwise complex task of evaluating the South Vietnamese military into quantitative terms that evaluated their activities. For example, a unit’s ability to accomplish a given task, whether combat or administrative, received an evaluation of “satisfactory,” “marginal,” or “unsatisfactory.” In essence, this assessment scheme merely ranked each task considered on an ordinal scale to facilitate statistical comparison with other South Vietnamese units.¹²¹ While advisors had the opportunity to provide a qualitatively based “narrative description” to provide greater context to these essentially numerical reports, they were mostly disregarded by senior officers except to clarify instances where discrepancies emerged in conducting statistical comparison.¹²² Westmoreland’s threats to restrict or withdraw military assistance from South Vietnamese units deemed “unproductive” highlights the extreme value placed on quantitative evaluations of activity.¹²³

MACV updated its evaluation scheme for the South Vietnamese military in 1968 with the development of the quarterly System for Evaluating the Effectiveness of Republic of Vietnam Armed Forces (SEER).¹²⁴ However, this “new” assessment system remained focused on providing quantitative assessments of agent activity. While its evaluation categories expanded to include 157 topics, its multiple-choice format continued to rank South Vietnamese activity on a very basic, if enlarged ordinal scale.¹²⁵

¹¹⁹ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 60.

¹²⁰ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 60.

¹²¹ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 241–242.

¹²² Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 242.

¹²³ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 244.

¹²⁴ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 324.

¹²⁵ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 325.

This included otherwise complex and malleable concepts like leadership, relationships, and morale. In addition to the time-intensive, formalized and standardized evaluation format of the SEER, advisors continued to fill out additional statistical reports on a monthly basis that further characterized their partner force's activities in simple, quantitative terms.¹²⁶

MACV's efforts to assess its pacification efforts followed a similar pattern as described with the SAME and SEER reporting. Robert Komer's Hamlet Evaluation System (HES), implemented in 1967 through the newly established Civil Operations and Revolutionary Development Support (CORDS) directorate, represents one significant example of this.¹²⁷ Despite the complexity of assessing and understanding the population, this monthly, computerized report strove to reduce pacification evaluations in South Vietnam's 44 provinces and 13,000 hamlets into quantitative terms for ease of analysis, interpretation and comparison.¹²⁸ Again, these reports primarily assessed a hamlet's activities and assigned them an ordinal score ('A' through 'E') in order to produce a final, overall ordinal ranking.¹²⁹ This format allowed little opportunity for advisors to contribute qualitative, descriptive assessments and observations, while simultaneously reducing complex relationships and behavior into over-simplified terms. In this way, as in other similar reporting formats, data collection itself became more important than the analysis and understanding it intended to facilitate.¹³⁰

The preceding examples provide insight into MACV's dominant metric preferences between 1965 and 1968. While the early advisory phases witnessed much greater tolerance for descriptive, qualitative assessments delivered less formally, the

¹²⁶ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 325.

¹²⁷ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 211–212.

¹²⁸ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 118–119.

¹²⁹ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 119.

¹³⁰ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 121.

increased size and scope of responsibilities correlate with a shift toward a heavily formalized and standardized format. More importantly, this format focused primarily on assessing activities, events and relationships in quantitative terms, often with an inward orientation at the organization itself. As argued in Chapter II, these characteristics, while certainly accessible, lack a great deal of descriptive depth when attempting to interpret the complexity and instability of the IW environment in South Vietnam.

F. APPROPRIATE/INAPPROPRIATE METRICS IN VIETNAM

MACV's dominant preference for measuring its progress through agent activity and quantification between 1965 and 1968 appears to be an inappropriate application of metrics in IW. These characteristics, and especially its strong inward orientation in assessing combat operations, prevented an outward orientation that would have greatly enhanced its ability to interpret and understand the IW environment. The insufficiency of these metrics emerged in all of MACV's efforts, to include its combat operations, advising the South Vietnamese, and pacification efforts.

MACV's efforts to assess the success of its combat operations primarily through quantification and analysis of agent activity prevented it from understanding the larger context of the political struggle. Its prioritization of engaging and destroying enemy forces (VC or NVA) implicitly assumes that the appearance and sustainment of these forces is, in itself, the central problem and not merely a symptom of the problem; in this case, the product of an extremely fractured and disenfranchised society. To this end, MACV sought to understand its progress in terms of the number of operations conducted, casualties inflicted, equipment damaged or destroyed, and other similar points of agent activity. These kinds of measures proved minimally useful since MACV experienced consistent difficulty in obtaining accurate and reliable information about the enemy forces and political structure to compare against these figures.¹³¹ In particular, MACV had minimal credible information detailing how large the communist forces were, or how

¹³¹ Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986), 229–230.

Thomas C. Thayer, *War Without Fronts: The American Experience in Vietnam* (Boulder, CO: Westview Press, 1985), 27–29.

quickly they could regenerate themselves. Later analysis suggested that the NVA could field nearly 200,000 replacements annually to offset the casualties it sustained.¹³² MACV estimates of the casualties inflicted, even those considered over-inflated, never came close to 200,000.¹³³ Thus, basing its reporting on quantitative agent activity was, in these instances, mostly misleading or useless.

Similarly, the metrics used by MACV to evaluate the South Vietnamese military proved misleading and ultimately inappropriate. In particular, the characterization of unit activity and performance on a simple ordinal scale facilitated a wide array of reliability issues with South Vietnamese units receiving inconsistent and seemingly counterintuitive ratings across multiple rating periods.¹³⁴ The South Vietnamese performance during the Tet Offensive in 1968 highlighted the uneven quality of their various forces, which the preceding evaluations did not seem to predict with any degree of precision.¹³⁵ Aside from the inconsistencies evident in the reporting and observed performance in Tet, the rigidly applied and simplified metrics failed to account for the nuance of each unit's unique contextual environment and conditions, thus degrading the metric's overall descriptive depth.¹³⁶ In this way, the MACV's assessments of the South Vietnamese military provided little that could help shape future advisor efforts to address shortcomings and enhance the capabilities of those units in need.

Finally, MACV's evaluation of its pacification efforts generally failed to accurately assess the true sentiment of the Vietnamese occupying the countryside, and thus missed arguably one of the most crucial elements of the larger conflict. As with the South Vietnamese military, MACV's measurement criteria and assessment format

¹³² Alain C. Enthoven and K. Wayne Smith, *How Much is Enough? Shaping the Defense Program 1961–1969* (Santa Monica, CA: Rand Corporation, 1971), 296.

¹³³ Alain C. Enthoven and K. Wayne Smith, *How Much is Enough? Shaping the Defense Program 1961–1969* (Santa Monica, CA: Rand Corporation, 1971), 297.

¹³⁴ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 242–243.

¹³⁵ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 325–327.

¹³⁶ Jeffrey J. Clarke, *Advice and Support: The Final Years, 1965–1973* (Washington D.C.: Center of Military History, United States Army, 1988), 330.

produced a relatively low degree of descriptive depth about the population and regular, inconsistent reporting which combined to confound any substantive conclusions. Thus, "...as MACV reported slow but steady gains in their pacification programs throughout 1967, the bulk of the Vietnamese in the countryside remained uncommitted to the Saigon government."¹³⁷ Additionally, a CBS News survey from the same period indicated that 48% of South Vietnamese respondents reported that their lives were worse than the previous year.¹³⁸ Therefore, while MACV and South Vietnamese efforts toward pacification proved to be insufficient or even failing, their metrics provided no indication of this, or worse, were ignored. In either case, they failed to foment a shift in effort toward addressing the grievances of the population and providing for their basic needs, which undoubtedly contributed significantly to the perpetuation of the conflict.

G. CONCLUSION

This survey of MACV's involvement in Vietnam between 1965 and 1968 provides significant observations and conclusions regarding the development and use of metrics in IW. This period observed a markedly high national imperative founded in the significant confrontations with Soviet and Chinese communist powers during the preceding years, but cresting with direct engagements against Vietnamese communist forces and the increased U.S. losses that resulted. Perceptions that Vietnam and Southeast Asia could fall into the communist sphere perpetuated concerns of a significant strategic loss that would provoke equally significant consequences in domestic and international politics. To prevent this outcome, the Johnson administration decided to increase its investment of resources into Vietnam dramatically, and embrace a more direct role in the conflict. As described in Chapter II, the high national imperative and the increased resources invested into the conflict would exert an adverse influence on the military force's development and application of metrics. Specifically, the military and political leadership's demands for decisive action and reports of progress leveraged

¹³⁷ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 122.

¹³⁸ Gregory A. Daddis, *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War* (New York: Oxford University Press, 2011), 122.

pressure on the military organization to use the most accessible metrics, quantitative measures of agent activity, which thereby reinforced a narrow, inward organizational orientation in assessing the conflict. Simultaneously, the rapidly increased size of the military organization, naturally inclined to machine bureaucratic behavior, encouraged greater emphasis on standardizing and formalizing the efforts of its subordinate elements to achieve better coordination and control. These systems and procedures further reinforced its natural inward orientation toward achieving the perception of ‘production’ and process efficiency at the expense of orienting its assessments outward toward the environment.

MACV’s inward orientation and reliance upon metrics with minimal descriptive depth obstructed a meaningful understanding of Vietnam’s IW environment, and thus prevented the organization from tailoring efforts to address the roots of the conflict. These involved deep fissures between the social, cultural, political, and religious identities of the nation aggravated by earlier periods of French colonization and Japanese occupation.¹³⁹ The wrecked economy and political vacuum following France’s departure only worsened these conditions and the increased infighting among these groups.¹⁴⁰ However, by focusing its primary efforts against the VC and NVA military forces, MACV focused mechanistically on mere symptoms of these problems and not their base causes. MACV’s primary reliance on inward-oriented metrics and quantifiable data that provided minimal descriptive depth did little to inform its leadership, or the senior national military and political leadership, of a needed shift in emphasis and effort.

Ultimately, MACV proved itself unable to overcome the significant political pressures generated by the high national imperative, and MACV failed to recognize the consequences of its bureaucratic characteristics and behavior. These errors thereby inhibited MACV’s ability to adapt and innovate its actions, and specifically its metrics, to

¹³⁹ George C. Herring, *America’s Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 46.

¹⁴⁰ George C. Herring, *America’s Longest War: The United States and Vietnam 1950–1975* (New York: John Wiley & Sons, 1979), 46.

Jeff Goodwin, *No Other Way Out: States and Revolutionary Movements, 1945–1991* (New York: Cambridge University Press, 2001), 110.

address and understand the deep complexity and instability of its IW environment. While the subsequent phase of its involvement in Vietnam included some reprioritization of effort in name; in practice, MACV remained fundamentally committed to the same metric forms and therefore, maintained a similar focus of effort in its operations until its departure in 1973.

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V. OPERATION IRAQI FREEDOM 2007

This final case study will focus on the period of Operation Iraqi Freedom, centered on the year 2007, commonly referred to as “the surge.” During this time period the United States increased the forces committed to Iraq and changed strategy to focus on population security. We selected this case because the national imperative of the conflict was at a high point with the rising violence in Iraq increasing political pressures and popular discontent for the conflict. Additionally, the surge of forces provides clear evidence of a high national imperative resulting in the selection of a larger military force package, which would imply an increase in machine bureaucratic tendencies that accompany larger military units. However, unique to this case was the ability of the U.S. military to succeed in these conditions. Starting with the surge and change of strategy in 2007, the U.S. military in Operation IRAQI FREEDOM was able to overcome the challenges of a high national imperative and machine bureaucratic tendencies to effectively utilize metrics to gauge progress and direct efforts toward success.

A. HISTORICAL NARRATIVE

In March 2003, the United States launched Operation Iraqi Freedom, an invasion to topple Saddam Hussein’s regime. In this conventional warfare-type invasion, America displayed military dominance and Iraq quickly fell. Soon the world was greeted with images such as President Bush declaring mission accomplished, pictures of Saddam’s dead sons, and the images of Saddam Hussein being pulled from his hiding spot. However, these positive images overshadowed the lack of a post invasion plan. Soon, the lack of governmental control led to instability and increased violence. As a complex insurgency began to grow from both Sunni and Shia elements, U.S. officials, like Secretary of Defense Donald Rumsfeld, rejected the possibility of this threat, and simply attributed the violence to remnants of the Ba’ath regime that were being dealt with by

coalition forces.¹⁴¹ Reluctantly, in 2004 and 2005, the United States finally began to formulate a national strategy for IW in Iraq and associated political objectives. The strategy focused on increasing the size and effectiveness of Iraqi Security Forces (ISF) in order to turn over responsibility to them as quickly as possible.¹⁴² Additionally, both U.S. civilian and military leaders believed that the presence of U.S. troops provoked hostility among the Iraqi people, “and thus sought to minimize the U.S. role, keeping American troops off the streets as much as possible and limiting their contact with the population.”¹⁴³ Thus, in the initial years of Operation Iraqi Freedom, military and civilian leaders focused on metrics indicating the ability to transition to Iraqi political control and the number of ISF produced. This quickly proved problematic as analysts collected data while blind to the entire layers of the conflict; and as a result, even as Iraq met political milestones and increased numbers of ISF took responsibility for security, conditions in Iraq continued to deteriorate.¹⁴⁴ Consequently, in 2006, the failure of this strategy became evident.

On February 22, 2006, Al Qaeda in Iraq (AQI) bombed the al-Askari Shrine (the Golden Mosque) in Samarra, which marked a downward turning point in the war. This act enraged the Shias in Iraq and led to rampant sectarian violence and mass killing between Shias and Sunnis. However, the U.S. military failed to properly interpret this event. A Department of Defense report published in May 2006 cited the bombing only to say that Iraq’s new leaders were standing united against further violence and seek to

¹⁴¹ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 3.

¹⁴² Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 4.

¹⁴³ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 4.

¹⁴⁴ Karen Guttieri, “Metrics in Iraq’s Complex Conflict Environment,” in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, & John Arquilla, (Washington D.C.: Potomac Books, 2010), 138, 147.

continue with the political process.¹⁴⁵ Up until this point, no one was accounting for levels of sectarian violence as indicators of successful strategy, and thus the military was not focused on stopping the violence. As a result of the increased sectarian violence, civilian casualties escalated, and Iraqi governmental and military organizations became increasingly sectarian and unreliable. The rise of violence also increased American popular discontent for the war and political pressure for ending the conflict and withdrawing the troops.

Consequently, the November 2006 U.S. elections led to the Democrats winning control of both houses of Congress, which signaled the need for a new strategy in Iraq. Under pressures from the Democratic Congress, President Bush launched a sweeping formal review of Iraq policy, and while inflexible on strategic objectives, Bush wanted change on “tactics, operational methods, force levels, and eventually, personnel.”¹⁴⁶ Additionally, the resignation of Secretary Rumsfeld removed a major obstacle toward change, as he dominated decision making and continuously advocated a more rapid transition to the ISF, which was evidently failing.¹⁴⁷ Then, with the advice of the National Security Council, the Joint Chiefs of Staff, and numerous outside counterinsurgency experts and policy analysts, the Bush administration conducted the important strategic shift of 2007, known as “the surge.”¹⁴⁸

B. HISTORICAL CONTEXT

In developing the new strategy, the United States realized that securing the population had to be the focus. As Jason Campbell and Michael O’Hanlon from the

¹⁴⁵ Karen Guttieri, “Metrics in Iraq’s Complex Conflict Environment,” in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, & John Arquilla, (Washington D.C.: Potomac Books, 2010), 140.

¹⁴⁶ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 11.

¹⁴⁷ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 18, 19.

¹⁴⁸ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 20.

Brookings Institute described, “overall civilian fatality rates from war-related violence must go down in Iraq if there this to be any hope of a better future.”¹⁴⁹ This change in strategy did not come without risks though, politically or physically. In December of 2006, “the bipartisan Iraq Study Group’s assessment argued that the situation was ‘deteriorating’ and that ‘the ability of the United States to shape outcomes is diminishing.’”¹⁵⁰ Thus, President Bush became more amenable to high risk options in order to save victory because “in strategy, negative trends often increase the risk tolerance of decision makers.”¹⁵¹ Subsequently, a report by an American Enterprise Institute (AEI) study group led by retired General John Keane and Frederick Kagan, advocated a major troop increase and a shift in strategy to population security, which was more in line with U.S. COIN doctrine and would control the sectarian violence in Baghdad.¹⁵² However, increasing troops was politically risky as Congress was actively lobbying for the removal of troops. Ultimately, in President Bush’s January 2007 State of the Union address, he “proposed a ‘surge’ of 21,500 new troops in a plan called ‘The New Way Forward in Iraq.’”¹⁵³ The riskiness of the new strategy clearly indicated a high national imperative for the conflict, because if this new strategy did not prove successful then Iraq would be lost. Additionally, this new strategy needed to quickly provide indicators of progress in order to appease political pressures and growing popular displeasure for the conflict.

The new strategy also brought in new leadership in the form of General David Petraeus as the new Multi-National Forces-Iraq commander. Based on our hypotheses in

¹⁴⁹ Jason Campbell and Michael E. O’Hanlon, “Measuring Progress in Iraq,” July 13, 2007, http://www.brookings.edu/opinions/2007/0713iraq_ohanlon.aspx (accessed on October 30, 2011).

¹⁵⁰ Karen Guttieri, “Metrics in Iraq’s Complex Conflict Environment,” in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, & John Arquilla, (Washington D.C.: Potomac Books, 2010), 142–143.

¹⁵¹ Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 23.

¹⁵² Steven Metz, “Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007,” in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 24–25.

¹⁵³ Karen Guttieri, “Metrics in Iraq’s Complex Conflict Environment,” in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, & John Arquilla, (Washington D.C.: Potomac Books, 2010), 143.

Chapter II, with the increased numbers of troops involved in the surge, Petraeus had to avoid the machine bureaucratic tendencies inherent with large military organizations in order to effectively interpret the IW environment in Iraq. Petraeus had written his Ph.D. about the success of COIN decentralization to district intelligence centers in Vietnam, and thus brought this concept to Iraq by installing Joint Security Stations (JSS) in every district to collect actionable intelligence and launch reaction forces.¹⁵⁴ Additionally, Petraeus was frustrated with Iraq's inability to move forward politically and the absence of "top-down" leadership; therefore, Petraeus wanted to focus on a "bottom-up" model for stability, believing that local population security would drive all other elements toward stability.¹⁵⁵ This began with moving soldiers off the large bases and into neighborhoods, especially along the fault lines where the Sunnis were being driven or where al Qaeda was in control.¹⁵⁶ Petraeus also issued COIN guidance that stressed the necessity to "Understand the Neighborhood," in order to fully understand the human terrain and the nuances of the local environment.¹⁵⁷ Additionally, population security became the primary mission by "maintaining a persistent, '24/7' forward presence among the population through Joint Security Stations, Coalition outposts, and active patrolling – day and night."¹⁵⁸ Thus, during the surge, every few weeks another JSS or Coalition outpost (COP) was constructed, and within a short time the residents and soldiers got to know each other, information tips began coming in, insurgents started moving out, and violence began to decline.¹⁵⁹ Furthermore, the focus on decentralization, co-location of forces with the population, and population security facilitated relationships with tribal sheikhs that led to Coalition Forces hiring and arming Sunni militias to further help

¹⁵⁴ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 313.

¹⁵⁵ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 321.

¹⁵⁶ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 365.

¹⁵⁷ Thomas E. Ricks, *The Gamble*, (New York: The Penguin Press, 2009), 370.

¹⁵⁸ Lieutenant General Raymond T. Odierno, "Counterinsurgency Guidance," Multi-National Corps-Iraq, Baghdad, Iraq, <http://smallwarsjournal.com/documents/mncicoinguide-english.pdf> (accessed November 2, 2011).

¹⁵⁹ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 330.

secure the population against sectarian violence and AQI threats. Overall, the new strategy enabled the U.S. military in Iraq to better understand the environment, protect the population, and establish stability from the bottom up to facilitate success in Iraq. Next, this case study will explore how General Petraeus and the U.S. military in Iraq was able to overcome the pressures associated with a high national imperative and organizational tendencies to effectively measure progress, evaluate operations, and achieve success during the surge.

C. NATIONAL IMPERATIVE

The high national imperative of the Iraq conflict in 2007 resulted in more troops being allocated to the conflict, and created political and public demands for indicators of progress. General Petraeus realized that he did not want to make the mistake of his predecessors by citing progress through activity based indicators that proved short lived and not representative of actual conditions.¹⁶⁰ However, Petraeus also understood that with the high national imperative, politicians and the public would need easily accessible metrics that quantitatively and succinctly portrayed signs of progress. As a result, Petraeus had members of his staff “systematically array all quantitative measures and double check them for accuracy. Monthly, they were released to the public.”¹⁶¹ This accurate, quantitative data was also related to trends over time to indicate valid progress. Members of Congress accused Petraeus of “cherry-picking” data that only highlighted the positives, a common fallacy with quantitative measures, but Petraeus promptly responded in his September 2007 testimony that “with respect to the facts that I have laid out today, I very much stand by those. If I did not think that it was an endeavor in which we could succeed, I would not have testified as I did.”¹⁶² Thus, Petraeus and the military organization in Iraq were able to overcome the national demands for results by

¹⁶⁰ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq* (New York: Random House, 2008), 318.

¹⁶¹ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq* (New York: Random House, 2008), 318.

¹⁶² Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq* (New York: Random House, 2008), 321.

systematically providing the politicians and the public with thorough and accurate metrics reflecting the current situation in Iraq.

Additionally, a high national imperative pressures the military organization to focus internally on readily accessible metrics in order to quickly satisfy policymaker demands for progress, instead of focusing outward on environmental outcomes, as is required in IW. However, Petraeus avoided these pressures in order to allow the strategy to succeed. Instead of requiring instant feedback from his subordinate units, Petraeus granted his subordinate units the latitude and time to understand the environment and focus efforts toward influencing outcomes. The decentralized nature of the new strategy required time in order to be successful. For instance, Congress was expecting a June or July assessment of whether the new strategy in Iraq was working. However, Petraeus postponed the hearings until September, realizing that it would take a while for the effects of the strategy to be evaluated.¹⁶³ Thus, Petraeus was able to overcome the influences of a high national imperative by effectively managing the external demands for indicators of progress with regular quantitative reports of the situation in Iraq, while in conjunction allowing time for the new strategy to work and time for his subordinate units to interpret the environment and focus on outcomes.

D. THE U.S. MILITARY ORGANIZATION IN OPERATION IRAQI FREEDOM

As discussed in Chapter II, when the military organization increases in size, the organization will develop more machine bureaucratic tendencies in order to effectively manage the increased numbers. Therefore, the surge of 21,500 additional troops should have led to increased bureaucracy and more reliance on the principles of standardization and formalization to manage resources and gauge performance. However, the U.S. military organization in Iraq, and the new strategy, avoided these dangers by relying on experience, professionalism, and the ability to mutually adjust across the battlefield. Specifically, one of the most important enablers of the new strategy was the improvement

¹⁶³ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 250.

of U.S. forces from more experience and training, to better tactics, techniques, and procedures (TTPs); and thus, not only more troops, but better troops.¹⁶⁴ These better troops allowed the military leaders to decentralize operations down to the JSS's and COPs, thus facilitating increased population security.

Additionally, the increased capability of U.S. forces allowed military leaders to push down responsibility to the lower levels at the outstations, which demonstrated the military's departure away from conventional reliance on standardization and formalization toward increased reliance on mutual adjustment, expertise, and innovation necessary for IW. In Petraeus's September 2007 report to Congress, he spoke to the increased capability of U.S. forces by stating that "we have employed counterinsurgency practices that underscore the importance of units living among the people they are securing, and accordingly, our forces have established dozens of joint security stations and patrol bases manned by Coalition and Iraqi forces in Baghdad and other areas across Iraq."¹⁶⁵ This decentralization of responsibility fostered organizational innovation as individual units were able to focus on creating new solutions to problems specific to their neighborhood and solvable only through detailed understanding of the environment. Additionally, the decentralization of responsibility and increased professionalism enhanced mutual adjustment, as adjacent units routinely cross-coordinated to react to environmental changes and enhance operations. Thus, the U.S. military organization during the surge was able to avoid the bureaucratic pressures caused by the increased force package. Instead, the increased professionalism of the forces and the new strategy's focus on decentralization, innovation, and mutual adjustment facilitated environmental understanding and successful operations.

¹⁶⁴ Steven Metz, "Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007," in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 40.

¹⁶⁵ General David H. Petraeus, "Report to Congress on the Situation in Iraq," 10–11 September 2007, 2.

E. THE NATURE OF METRICS

With the new strategy of the surge in motion, the role of metrics was increasingly important to evaluate the success of operations and the strategy itself. As Karen Guttieri describes, “analysis of data collected can shape strategy to great advantage, but a false reading of the environment is potentially dangerous.”¹⁶⁶ Thus, with the high national imperative of the conflict and the increased commitment of resources, metrics became crucial. Petraeus alluded to their importance by describing that “we do not, however, just rely on gut feel or personal observations; we also conduct considerable data collection and analysis to gauge progress and determine trends.”¹⁶⁷ More importantly, the data collected was focused on depicting the environment, or outcomes, and not on the activities of the organization itself. This was accomplished by collecting data from both coalition and Iraqi operation centers, using methods greatly enhanced by the presence of coalition forces living among the Iraqi people.¹⁶⁸ Thus, the United States’ strategy of securing the population by living amongst them in JSS’s and COP’s enabled the military to effectively acquire and focus on outcome based metrics to interpret the environment.

Also, the surge strategy relied on both quantitative and qualitative measurements of outcomes to indicate progress and success. Quantitative measurements were still a necessity in order to satisfy the demands of external stakeholders and the high national imperative. However, what was unique to the new strategy was the increased ability to gain qualitative measures of outcomes. The JSS’s and COP’s enabled the collection of qualitative measurements that facilitated and evaluated crucial local relationships and enabled detailed understanding of the local environment. Therefore, while satisfying

¹⁶⁶ Karen Guttieri, “Metrics in Iraq’s Complex Conflict Environment,” in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, and John Arquilla (Washington D.C.: Potomac Books, 2010), p. 137

¹⁶⁷ General David H. Petraeus, “Report to Congress on the Situation in Iraq,” 10–11 September 2007, 3.

¹⁶⁸ General David H. Petraeus, “Report to Congress on the Situation in Iraq,” 10–11 September 2007, 3.

external stakeholders with quantitative measures of outcomes, the military also focused on qualitative measures of outcomes to enhance internal understanding of the complex conflict.

F. APPROPRIATE/INAPPROPRIATE METRICS IN OPERATION IRAQI FEEDOM

Lastly, it is important to determine if the metrics utilized by the military in Iraq were appropriate for that period of the conflict. With quantitative metrics, problems can arise with the selectiveness of the data and its inadequacies in capturing the multiple layers of the conflict. For instance, naysayers of Petraeus's reports to Congress state that he used the trends in ethno-sectarian violence beginning in May 2006 to show progress, because the high level of attacks in 2006 serve as a baseline, and anything lower provides a "rosier picture of progress."¹⁶⁹ However, with the new strategy in 2007, military leaders realized that "the key indicator of progress in security was Iraqi civilian casualties, not those inflicted on the American or Iraqi militaries."¹⁷⁰ With the current levels of high ethno-sectarian violence, Petraeus believed that a decrease in civilian casualties would indicate increased stability; whereas, American or Iraqi casualties were difficult to interpret because as the military increased their operations in previously uncontested areas, casualties were bound to increase as well. Furthermore, Petraeus's quantitative metrics had qualitative aspects to increase environmental understanding. Showing trends over time of measurements, and breaking down the measurements by district, village, and even neighborhood, adds a qualitative aspect to better understand what is actually occurring in the conflict and if the forces are making progress. For instance, in Petraeus's September 2007 report to Congress, he displayed a chart showing the density of sectarian incidents in Baghdad neighborhoods to reflect progress being made in reducing ethno-sectarian violence, and to identify the areas that remain

¹⁶⁹ Karen Guttieri, "Metrics in Iraq's Complex Conflict Environment," in *The Three Circles of War: Understanding the Dynamics of Conflict in Iraq*, eds. Heather S. Gregg, Hy S. Rothstein, & John Arquilla, (Washington D.C.: Potomac Books, 2010), 141.

¹⁷⁰ Thomas E. Ricks, *The Gamble*, (New York: The Penguin Press, 2009), 156.

challenging and need increased emphasis.¹⁷¹ Since these quantitative metrics provided feedback on the primary mission of population security and helped to adjust operations toward decisive areas, then the metrics proved appropriate for the conflict.

However, quantitative metrics on sectarian violence and other enumerated data are not alone sufficient for guiding successful operations in IW. As Jason Campbell and Michael O’Hanlon describe, historically success in IW, and specifically COIN, requires thorough understanding of population perceptions:

The experience of successful counterinsurgency and stabilization missions in places such as the Philippines and Malaysia, by contrast, leads us to place a premium on tracking trends in the daily lives of typical citizens. How secure are they, and who do they credit for that security? How hopeful do they find their economic situation, regardless of the nation’s GDP or even their own personal wealth at a moment in time? Do they think their country’s politics are giving them a voice?¹⁷²

These aforementioned details on population security and population perceptions are best captured through qualitative, outcome-based metrics. Petraeus realized that for the new strategy to be successful they had to “make life better in the neighborhoods,” and doing so required “feedback from the field, and then issuing ‘Frag-Os,’ or fragmentary changes, to the existing campaign plan.¹⁷³ The qualitative reports generated through the daily population engagements and activities of the JSS’s and COP’s provided detailed understanding of the population. Additionally, Petraeus demanded the qualitative aspect metrics by ensuring “our analysis of that data is conducted with rigor and consistency, as our ability to achieve a nuanced understanding of the security environment is dependent on collecting and analyzing data in a consistent way over time.”¹⁷⁴ Thus, the qualitative metrics were important in order to understand the complex conditions in individual

¹⁷¹ General David H. Petraeus, “Report to Congress on the Situation in Iraq,” 10–11 September 2007, 3.

¹⁷² Jason Campbell & Michael E. O’Hanlon, “Measuring Progress in Iraq,” July 13, 2007, http://www.brookings.edu/opinions/2007/0713iraq_ohanlon.aspx (accessed on October 30, 2011).

¹⁷³ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, (New York: Random House, 2008), 247.

¹⁷⁴ General David H. Petraeus, “Report to Congress on the Situation in Iraq,” 10–11 September 2007, 3.

neighborhoods and adjust strategy as necessary to fit the environment. Consequently, since the strategy's primary mission was population security, the metrics utilized by Petraeus and his forces were appropriate for the conflict.

G. CONCLUSION

Overall, analysis of the 2007 strategy in Operation IRAQI FREEDOM provides important insights into the metrics development process for IW conflicts. During this time period, the conflict had a high national imperative as political and popular discontent for the increasingly violent conflict made the new strategy an all or nothing venture. If conditions did not improve, the United States faced strategic withdrawal and potential failure. In an attempt to save the conflict, the Bush administration surged additional troops to Iraq and changed the mission priority to securing the population. Based on our Metrics Development Chain explained in Chapter II, the high national imperative and the increased resources committed to the conflict could have detrimental effects on the military organization and the metrics development process. The high national imperative places stress on the military organization, as demands for progress from policymakers pressure the military organization to focus inward on measures of activity because they are easily accessible and provide a short-term illusion of progress. Furthermore, the increased force size pressures the military organization to rely more on standardization and formalization to manage the additional resources, and thus evaluate itself more on internal productivity instead of on effects on the environment. However, the military forces in Iraq, under the leadership of General Petraeus, managed to effectively deal with these negative pressures, develop appropriate metrics, and achieve success.

The key to the new strategy and its eventual success was the shift in focus to population security and the establishment of military security stations and outposts among the population to ensure security and stability. The forward projection of military forces out into the population allowed accurate and timely collection of both quantitative and qualitative measurements of the outcomes of military actions, or the effects of operations on the environment, at local levels. Petraeus was then able to use this accumulated data to provide external stakeholders with easily portrayed quantitative

metrics that indicated progress in qualitative detail. Thus, the military was able to appease the pressures of the high national imperative, while still remaining focused on the conflict environment.

Likewise, the military in Iraq was able to avoid pressures of bureaucratic standardization and formalization often inherent with an increase in forces because of the increased professionalism and experience of the forces. With the new strategy, Petraeus could maximize the increased capabilities of the forces by decentralizing operations and neighborhood responsibilities down to the JSS's and COP's. As these individual units managed their own conflicts from their outstations, they relied more on qualitative, outcome-based metrics to effectively describe their environment, create conditions for increased stability, and achieve success.

However, it is important to note that the employment of small U.S. units to remote locations tasked with population security worked in Iraq because of the unique conditions of that environment. At the end of 2006, the insurgents had already lost much of their local support, the population was tired of the conflict, and U.S. support and reinforcement was always close by—conditions that are not readily transferrable to other conflicts, like Afghanistan.¹⁷⁵ Thus, one IW strategy and its associated metrics are not universal to every conflict. What is necessary is the ability to develop the appropriate metrics that allow understanding of the complex IW environment. In Iraq in 2007, the military was able to overcome the pressures of a high national imperative and machine bureaucratic tendencies to effectively develop and utilize qualitative metrics that accurately reflected outcomes and directed U.S. efforts toward success.

¹⁷⁵ Steven Metz, "Decisionmaking in Operation Iraqi Freedom: The Strategic Shift of 2007," in *Operation IRAQI FREEDOM Key Decisions Monograph Series*, vol. 2, ed. John R. Martin (Carlisle, PA: U.S. Army War College, May 2010), 55.

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VI. CONCLUSION

The case studies described in the previous chapters illustrate the impact of the Metrics Development Chain on the creation and selection of metrics to evaluate success in IW. The national imperative of the conflict and the organizational tendencies of the military force package selected for the conflict appear to influence how the military evaluates itself and adjusts its strategy, based off appropriate or inappropriate metrics. Table 1 summarizes the Metrics Development Chain in the IW conflicts of the Greek Civil War, the Vietnam War, and Operation Iraqi Freedom.

	National Imperative	Organizational Tendencies	Predominant Type of Metrics	Appropriate Metrics for the Conflict?
Greek Civil War	Low	Adaptive, Innovative, & Mutual Adjustment	Qualitative Measures of Outcome	Yes
Vietnam 1965-1968	High	Standardized & Formalized	Quantitative Measures of Activity	No
Iraq 2007	High	Adaptive, Innovative, & Mutual Adjustment	Qualitative Measures of Outcomes	Yes

Table 1. The Metrics Development Chain in the Greek Civil War, Vietnam, and Iraq

As Table 1 shows, the Greek Civil War and the Vietnam War from 1965–1968 lie at opposite ends of the spectrum, in terms of having favorable conditions for developing and selecting metrics appropriate for the IW conflict. In the Greek Civil War, the low national imperative of the conflict resulted in less demands for information and less pressure for progress. Additionally, the low national imperative resulted in the deployment of a smaller force package that had both the capabilities and latitude to be flexible, adaptive, and organized to best suit the environment of the conflict. As a result, the force package relied on metrics mostly derived from qualitative measures of

outcomes to best interpret the environment, assess the conflict, and focus strategy toward success. However, in Vietnam from 1965–1968, this was not the case. The high national imperative of the conflict created both political and military demands for decisive action and reports of progress. This pressured the military organization to use the most accessible metrics based on quantitative measures of activity to satisfy external demands. Additionally, the high national imperative resulted in the deployment of a large force package that immediately developed an inward focus, relying on bureaucratic principles of standardization and formalization to efficiently manage the massive amount of resources. These organizational tendencies inhibited MACV's ability to be adaptive and focus on the qualitative measurements of outcomes necessary to understanding the complex IW environment. Thus, the pressures on MACV prevented the organization from focusing on the appropriate metrics and recognizing that its strategy was failing.

Operation Iraqi Freedom in 2007 demonstrated that a military organization in IW can overcome the negative influences associated with the Metrics Development Chain. During this period, the conflict had a high national imperative due to the political tensions and rising violence. Additionally, the United States increased the force package allocated to the conflict with the new surge strategy. However, the military organization in Iraq was able to overcome these pressures by decentralizing their forces to foster organizational tendencies more reliant on adaptation and mutual adjustment. This allowed the military to rely more on quantitative, outcome-based metrics to effectively understand the environment and create conditions for success. With the increased understanding of the environment, the military was able to easily provide external stakeholders with clear metrics that indicated progress in qualitative detail and reflected the outcomes of the strategy's actions. Thus, the military in Iraq successfully managed the Metrics Development Chain toward using appropriate metrics for the IW conflict.

Overall, the case studies indicate that simply finding universal metrics for IW applicable across time and space is not, in itself, sufficient in solving the U.S.'s difficulties measuring its progress. In other words, solving our problems of metrics in IW is not solely about selecting the correct metrics. Instead, it is also about managing the pressures that influence the organization's development and selection of metrics to

interpret the environment, evaluate strategy, and adjust operations. The pressures generated by the national imperative and military organizational tendencies hinder the selection of appropriate metrics.

The national imperative functions as one of the driving influences in determining military commitment to a conflict. In this process, policy makers must consider a myriad of factors and demands that may transcend the scope of responsibilities of those military leaders assigned to the conflict. Satisfying these complex factors creates a pressure for results showing the efficient use of national resources. This pressure can create a demand for evaluations of progress that trade depth and accuracy for expediency. As a result of this pressure, senior military leaders are tasked with the responsibility to articulate the characteristics of the conflict to policy makers in easily expressed quantitative forms. Additionally, the high demand for information can persuade the military organization to express progress through easily attainable measurements of activity, instead of measurements focus on outcomes and true effects on the environment. However, the military must not let these demands guide the focus of the organization and the evaluation of strategy. General Petraeus in Iraq successfully managed the pressures of a high national imperative by keeping the organization focused on qualitative assessments of the environment, while satisfying policy makers with detailed, quantitative reports that depicted improving trends over time and evidence of the strategy's success. Thus, it is possible to manage a high national imperative and remain focused on evaluating the complex IW environment.

Additionally, the military organization selected to carry out an IW mission must deliberately work toward limiting and preventing its natural, but counterproductive organizational tendencies from evolving. Specifically, it must resist reliance upon the standardization and formalization associated with dogmatic commitment to doctrine and conventional processes. This process begins with senior military leaders' assuming the responsibility to advise policymakers on appropriate force package selection for the unique demands of the IW conflict at hand, regardless of any political pressure to the

contrary. These leaders must provide strong advocacy for solutions and measures that reduce or mute the negative organizational tendencies prevalent in large bureaucratic military organizations.

Adaptive, innovative, and flexible organizations find success in IW because of the complex and unstable nature of such conflicts. The examples of JUSMAPG and the strategy shift in the OIF surge are just such examples. Immediately following WWII, at the height of the military's bureaucratic power and influence, it managed to resist its natural organizational inclinations and instead form the JUSMAPG in a way that permitted constant adaptation to reflect the significant aspects of the Greek Civil War. The surge in Iraq owes its success to more the adaptive techniques and increased mutual adjustment of the forces, than to an increase in available combat power. In a contrasting example, the MACV maintained the tenets of doctrine, constantly investing time, energy, and manpower to degrading enemy combat power; therefore, the metrics that MACV selected and employed to assess efforts never fully reflected the nature of the conflict in Vietnam.

Furthermore, military leaders must understand the nature of the conflict in order to effectively organize their forces, evaluate the environment, and advise their political leadership. Generals Petraeus and Van Fleet based their assessments on the situation in Iraq and Greece in such a manner, refusing to be compelled to articulate the situation to support an agenda other than the reality on the battlefield. Their successes, as compared to the failed example of MACV efforts in Vietnam, illustrate that simple data collection is insufficient. The analytical effort required to honestly and objectively weight and employ that collected data must be commensurate with the task.

To determine the most accurate methods for gaining and interpreting environmental assessments, certain organizational tendencies favor the IW combatant. The decentralization of authority and responsibility allows for qualitative analysis of specific events, circumstances, and geographic regions. This implies certain responsibilities and requirements for subordinate elements in order for them to make a meaningful contribution. First, the decentralized elements must have the competence to encapsulate the relevant details of their experience. A professional force is required, one

that has the ability to qualitatively and/or quantitatively articulate the meaningful factors of their environment in accordance with the commander's intent and the desired end state. Second, the military organization must have the analytical ability to collect, process, and interpret these assessments, collating the subordinate feedback into a coherent assessment that can accurately inform military leaders on future courses of action and ultimately provide frank and valid feedback to national level decision makers. For instance, JUSMAPG's evaluation of the environment in the Greek Civil War is demonstrative of this relationship as junior military advisors' feedback regarding their Greek counterparts' ability and aggressiveness became a significant qualitative feedback mechanism. This strategy was confirmed and reinforced by quantitative measures. As the communist guerillas became more and more estranged from the populace, the number of enemy killed and captured, and the exchange ratio from engagements became a relevant indicator. Without establishing the conditions that improved the Greek Army, such measures would have been less telling. In Iraq, the higher headquarters relied on subordinate units to become experts on their assigned area of responsibility. This deliberate empowerment of subordinate headquarters allowed for detailed and accurate assessments that built a more accurate feedback mechanism to support the new strategy. The latitude to make area-specific assessments provided for variation, which was not present at the lower levels of MACV, where the emphasis to engage enemy combatant units overpowered the regionally specific recommendations of subordinate commands. Thus, the decentralization of forces and authority is essential in IW conflicts, provided the forces have the professional capability, in order to maximize understanding of the local environments and measure progress and success. Some contend that these preferred organizational characteristics favor the employment of Special Operations Forces. However, our cases demonstrate that any type of military unit, given the appropriate training, capabilities, and autonomy to facilitate environmental understanding and adaptation can exhibit these preferred characteristics.

As shown by our case studies on the Greek Civil War, the Vietnam War from 1965–1968, and Operation Iraqi Freedom in 2007, the influences of the Metrics Development Chain can result in a military organization in IW selecting metrics that are

inappropriate for the conflict and ineffective in gauging success. Additional research could examine the impact of the Metrics Development Chain on other IW conflicts in order to further assess the specific influences of this causal chain, or to determine how different military organizations coped with the pressures affecting metrics creation and selection. For instance, a cursory examination of U.S. involvement in Operation Enduring Freedom-Afghanistan (OEF-A) and Operation Enduring Freedom-Philippines (OEF-P) appears to reinforce the influences of the Metrics Development Chain. In Afghanistan, despite the evident early success of smaller decentralized forces, the relatively high national imperative of the conflict ostensibly drove the commitment of larger forces and greater resources to the conflict. Managing this increased force size and the demands for information associated with a high national imperative, the military organization in Afghanistan appears to have become reliant on the bureaucratic tendencies of standardization and formalization to ensure the efficient management of resources and timely reporting. In turn, after over 10 years of continuous conflict, U.S. forces in Afghanistan still appear to struggle to effectively interpret the conflict environment. This outcome seems to result from the failure to utilize ideal organizational characteristics for IW, and an inability to focus on the necessary qualitative assessments of outcomes. As a result, the military in Afghanistan continues to have difficulty developing and selecting appropriate metrics for evaluating progress and success.

In contrast, in OEF-P the U.S. military appears to be effectively developing and utilizing appropriate metrics of success. The low national imperative of the IW conflict in the Philippines has resulted in the commitment of fewer resources and less constraining demands for indicators of progress and success. Thus, the low national imperative has allowed the deployed military force to focus on the correct organizational characteristics best suited to manage the conflict. The U.S. military in the Philippines seems to successfully employ the characteristics of decentralization, adaptation, and mutual adjustment to effectively understand the complex and unstable IW environment. Additionally, through qualitative assessments of the host nation military force capabilities, population perceptions, and enemy capabilities, the U.S. military has gained increased knowledge of the outcomes of its efforts. Consequently, in the Philippines the

military organization appears to create and apply appropriate metrics that facilitate the evaluation and adjustment of strategy toward eventual success. Thus, it initially appears that the United States' efforts in OEF-A and OEF-P demonstrate the potential positive and negative influences of the Metrics Development Chain. Further analysis of these conflicts, and additional IW conflicts like the United States involvement in the El Salvadorian civil war, could provide further case studies to validate our findings.

Along with additional case studies, further exploration of civil-military relationships can provide more insight into the problems of metrics development. The necessary interaction between senior military leaders and the civil authority responsible for directing the application of military power prompts important questions about how to resolve conflicts arising from the differing interests and perspectives. Instances where the limited requirements of a given conflict contrast with the demands prompted by a high national imperative illustrate merely one way in which tension can arise between these two groups when deciding upon the type of force package and strategy to employ. How does the military authoritatively advocate an appropriate package and strategy when a high national imperative prompts political pressure to the contrary? Ultimately, civilian authority must remain sovereign, as mandated by the Constitution, but acquiescing to political pressure that advocates an inappropriate force package and strategy that will potentially prolong the conflict and increase its cost is unacceptable. Senior military leaders, understanding the nature of the conflict in question, must work to ensure the organization deployed achieves its objectives as efficiently and effectively as possible, thereby minimizing unnecessary loss.

Alternatively, history demonstrates that senior military leaders often advocate the deployment of large bureaucratic force packages irrespective of the attendant national imperative and type of conflict in question. In these instances, to what degree should the civilian leadership exert their authority and dictate the specific force package composition and strategy? The political leadership may well insist on a smaller force package when faced with a low-imperative conflict, contrary to the inclination of the military leadership who view this as significantly increasing risk to the force and the mission. The conflict between Secretary of Defense Donald Rumsfeld and senior

military leaders planning the invasion of Iraq highlights this dynamic. Senior military leaders pushed for an extremely large invasion force due to perceived risks to the force and innate bureaucratic tendencies, while Secretary Rumsfeld instead demanded a smaller commitment of resources. The prolonged duration of the conflict and Iraq's uncertain future prompts concerns about how the tensions between civil and military leaders can affect how the military organizes, executes, and assesses its strategy in IW. Clearly, the need for strong senior military advocacy raises important questions about civil-military relations and specifically, how far into the DoD organization the civilian authority should reach. As IW conflicts appear to remain a feature of the future global environment, improving these relationships remains important in order to effectively organize our forces for the conflict and interpret the conflict environment.

Most importantly, the United States and its military must figure out how to effectively develop and employ metrics to evaluate progress and success in current and future IW conflicts in order to effectively utilize national resources. It is not an easy task. "Metrics are dangerous and easily abused. But they may also be just about the best thing we have to inform our debate, keep our politicians honest, and help those Americans still legitimately confused about Iraq to figure out what they really think."¹⁷⁶ Therefore, the first step in effectively developing and applying metrics is to first understand them, understand the influences that affect their development and selection, and understand which metrics are appropriate to the individual conflict.

¹⁷⁶ Jason Campbell and Michael E. O'Hanlon, "Measuring Progress in Iraq," July 13, 2007, http://www.brookings.edu/opinions/2007/0713iraq_ohanlon.aspx (accessed on October 30, 2011).

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