ASYMMETRIC: MYTH IN UNITED STATES MILITARY DOCTRINE

A thesis presented to the Faculty of the US Army
Command and General Staff College in partial
fulfillment of the requirements
for the degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

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Fort Leavenworth, Kansas
2004

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MASTER OF MILITARY ART AND SCIENCE

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the US Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

ASYMMETRIC: MYTH IN UNITED STATES MILITARY DOCTRINE by Major Stephen D. Pomper, USA, 96 pages.

The word asymmetric and theory of it is embedded in US joint and services doctrine, professional magazines, and countless other military publications. As such, the term is used with ever-increasing frequency in military jargon. A problem is derived from this: definitions of the term vary widely across and within the services. This creates a larger problem when service members attempt to apply or react to asymmetry in their profession.

This study examines whether US service personnel have an appreciation for the doctrinal term asymmetric or asymmetry. This central question requires a review of joint and services doctrine as well as contemporary professional works on the topic. From this, the study compares the results of an inter-service survey to determine if service members have appreciation for asymmetry in military operations.

Service members' appreciation for the term asymmetric is as broad as the definitions provided by US military doctrine. Personnel most associate asymmetry with the accepted English definition--imbalanced or not equal. This is not wholly in accordance with the characteristics that doctrine provides. Without an appreciation of asymmetric methodology, US doctrine at all levels should abandon the word or make significant efforts to refine and train this doctrinal term and important concept.

ACKNOWLEDGMENTS

This completed work owes much to the many professionals of the US Army Command and General Staff College. Foremost, for the opportunity to study, because a Soldier's other duties do not allow this level of fidelity. Additionally, and not inclusive, nor in any particular order: The committee that supported this endeavor and a singular gratitude to Dr. Mike Ray for his calm and supportive approach over the past eight months; the Development and Assessment Division of the College, specifically Lieutenant Colonel Robert Gaslin for his time and energy to teach, and Dr. David Bitters for valuable statistical aid; reference librarian Rusty Rafferty for his assistance at the Combined Arms Research Library; support from student-peers; and the enthusiastic assistance of nearly thirty College service members and other agency civilians. No door was ever closed and no request ever went unanswered by these professionals. I am still enamored by the wholehearted help I received when I introduced myself as an MMAS candidate. Pens literally went down and I was always welcomed. Thank you for a first-class performance.

Endnotes offer additional acknowledgements to specific circumstances.

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ACRONYMS

ABCA	America-Britain-Canada-Australia
AFDD	Air Force Doctrine Document
AFH	Air Force Handbook
AFI	Air Force Instruction
AFM	Air Force Manual
AFP	Air Force Pamphlet
AFPD	Air Force Policy Directive
DIME	Diplomatic, Information, Military, and Economic
DOD	Department of Defense
FM	Field Manual (Army)
GW	Guerrilla Warfare
IO	Information Operations
IW	Information Warfare
JEL	Joint Electronic Library
JFC	Joint Force Commander
JP	Joint Publication
JV	Joint Vision
LIC	Low Intensity Conflict
PME	Professional Military Education
SME	Subject Matter Expert
MCDP	Marine Corps Doctrinal Publication
NBC	Nuclear, Biological, and Chemical
NDP	Naval Doctrine Publication

NWP	Navy Warfare Publication
UC	Unconventional Warfare
WMD	Weapons of Mass Destruction

Chapters 4 and 5 use these abbreviations to survey responses in the body of the text:

SA	Strongly Agree
A	Agree
U	Unsure
D	Disagree
SD	Strongly Disagree
O3	Captain
O4	Major or Lieutenant Commander--Navy
O5	Lieutenant Colonel
O6	Colonel or Captain--Navy

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CHAPTER 1

INTRODUCTION

> I think the doctrine is OK. I'm not sure we've assimilated the doctrine as well as we ought to. We've been talking about asymmetric threats for years. The nature of asymmetric threats is that they're so unpredictable. (2003, A-12)
>
> Lieutenant General William Wallace

The terms "asymmetric," "asymmetry," and "asymmetrical"[1] have taken center stage in United States (US) military writing and discussions. These terms are used to explain an endless array of accepted military terms and may often standalone in meaning. The enemy is now an asymmetric threat armed with asymmetric weapons operating from an asymmetric environment. So far the US retains an asymmetrical advantage over this menace, but is it certain that asymmetric war and strategy are ongoing and that asymmetric warfare is the definite future?

This is not an attempt at humor, but rather a short example of contemporary uses of the term asymmetry in military venues (see Table 1: 33 Asymmetric Occurrences). It can be heard on cable news commentaries, read in professional journals, and used to defend a friendly discussion; and recently it has made its way into US joint publications (JPs) and service documents. Recent is a relative term for "utilizing asymmetric approaches is as old as warfare itself" (Hughes 1998, speech). Classic military theorists, such as Sun Tzu, Carl von Clausewitz, and others, also echo the concept of asymmetry. Why then has this term become so widespread in its use over the past several years? Is this the best choice of words or just a new one? Does asymmetric belong in US military doctrine? These are natural and immediate questions that service members have. An

airman captures the prevailing appreciation level well; “It’s an important concept that has become a ‘buzz-word’ for everything” (Survey comment).

Research Questions and Problems

Asymmetry may be a “buzz-word,” but it is surely an “important concept.” Therefore, the primary question for this thesis is: Do service members appreciate asymmetry? The thesis will address this question and others that the term asymmetric creates in US military doctrine and understanding; how is asymmetry defined by doctrine; is there common appreciation in each branch and across the services; is US doctrine used to gain appreciation; is asymmetry forever embedded in the doctrine? A July-August 2001 *Military Review* article realizes this debate is not new, “The term apparently assumes whatever meaning military authors wish to portray and is thrown around like the grammatically incorrect term ‘irregardless’” (Thomas, 33).

A problem is that the simplest answer to the primary question may be no. The greatest support for this is found, or more accurately, not found in JP 1-02: *Department of Defense* (DOD) *Dictionary of Military and Associated Terms*; the term asymmetry does not appear. Although a related problem of timely doctrine is discussed in greater detail in chapter 2, it is important to mention that this document was appended in June 2003. This omission illuminates the main problem this thesis undertakes: US doctrine poorly describes asymmetry. Ultimately this limits service members’ appreciation for the important concept.

The reality of today’s service doctrine supports the need for closer research. Joint publication 1-02 refines the already stated problem by defining the criterion for acceptable military terminology: it “should be of general military or associated

significance." Is asymmetry therefore, not significant? The publication also directs that all other DOD dictionaries and glossaries will coordinate publishing with the Joint Staff prior to release (2003, ii). From this a hollow assumption is made that newly published DOD materials will no longer use the term asymmetric, because it is not found in the leading joint publication. This is known to be false, so the dilemma is an ever expanding problem. The word appears thousands of times in countless documents--both in military and professional publications; and with as many definitions.

The problem is not isolated to only these publications and it is not simply a case of being included in the text. The next release(s) is likely to mention asymmetry in some fashion that is similar to our United Kingdom allies' version of the *Dictionary of Military and Associated Terms* (See Glossary, UK JWP 0-0.1 2002, A-26). The problem is more closely tied to the many diverging definitions of a significant concept.

An example of diverging definitions adds clarity to the problem. "Joint Vision 2020" references asymmetry as it applies to: approaches, methods, advantages, concepts, threats and engagements (2000). It does not define asymmetry. Joint publication 1-0 only addresses "asymmetric threats" and defines these as, "states or non-state groups - to seek to exploit asymmetries and focus on US vulnerabilities" (14 November 2000, II-3). This is the joint capstone document that should guide senior military leaders and forces, yet it omits clarification of the other asymmetries commonly referred to (i.e., methods); and it is vague to define one term by using the same to explain it. Further complicating this is JP 3-07, the *Joint Doctrine Encyclopedia*. It clearly approaches asymmetric from a US offensive role and provides an example to the Joint Force Commander (JFC): Air attacks on ground force formations in convoy (1997). In the age of growing multinational

military operations, it is also interesting to note that the *America-Britain-Canada-Australia Coalition Operations Handbook* only defines "asymmetric threats" (ABCA 2001, 12-1). The joint problem has naturally made its way down to the services: Army, Navy, Air Force and Marines.

For example, the Army has gone as far as to add asymmetry to explain the "Fundamentals of Full Spectrum Operations." These include time-tested concepts such as: The Principles of War, Tenets of Army Operations, and the Operational Framework (FM 3-90 2001, 4-11:4-32). It is no wonder that asymmetry can be heard and read daily in the pursuit of a Professional Military Education (PME) in US service schools.

In summary, the problem found in our doctrine is directly related to application in the "real world" that pays for a quandary in blood. The problem is defined by accuracy and multiple meanings. In vernacular, the term asymmetric has become a bumper-sticker that many wrongly attach to things they do not understand. Proving an appreciation level of asymmetry in service members is the catalyst to correct or disprove this problem.

Definitions

Doctrine is, as defined by JP 1-02: "Fundamental principles by which the military force or elements thereof guide their actions in support of national objectives" (2003, 165). Chapter 2 investigates service and joint doctrine in more detail.

The English meaning of the term "asymmetric," as defined by a dictionary, usually points to the absence of symmetry or specifically a lack of balance (Berbube 1982, 137). Fortunately for the winners, and unfortunately for the losers, this lack of balance is what warring states (or individuals for that matter) have always planned for in their search for victory. It is not strange that this term has gravitated into military

manuals. Yet it takes a veteran student of military art and science to understand and apply this basic rule for winning. The purely English definition can add substance to short, almost adjective-like explanations for military personnel. For example, you may have an asymmetric or numeric difference; twenty tanks versus ten tanks. Yet defining the military lack of balance will require a directed and more detailed analysis; twenty T-54s versus ten M1A2 main battle tanks. Where does the asymmetry begin and end in this example? A difficult military question, yet the English definition can provide a good beginning reference for this study.

Perhaps the most accepted military definition of "asymmetric warfare" derives from, "attacking an adversary's weakness with unexpected or innovated means while avoiding his strengths" (Hughes 1998, speech). In this definition examples of asymmetric attack include weapons of mass destruction (WMD), which ultimately includes nuclear weapons. Herein lays another problem in defining the term in military venues; asymmetry is very much perception. This generally accepted definition and perception requires some explanation. It is a notion that should not escape the reader, because it compliments the objective approach used by the researcher.

An oversimplified example of perception and asymmetric attack helps prove this definition can be murky without scientific tests or analysis. If a non-state group exploded a suitcase enclosed nuclear device in a major US city, would this be an asymmetric attack? In one sense it may appear to be--the group chose a multi-million person city and not inside Cheyenne Mountain (avoiding strengths), and used a suitcase knowing that it would not be randomly inspected (innovative means). Another interpretation of this would consider that if the nuclear-armed US were attacked with a nuclear weapon, it

would be a balanced or symmetric attack, not an asymmetric one. Still another perception would solely question the attacks morality (i.e., using western standards); a simple question of the right or wrong thing to do, and to whom. Drawing further into this example is the question of who can be asymmetric? Perhaps the US is the most asymmetric player on the planet? The lone freedom fighter in some distant place would undoubtedly consider a Tomahawk cruise missile strike the closest thing to innovative he has ever seen. Yet after twenty-five strikes this may just become routine, or they will find a way to lesson the effect. This notion is refined further and becomes the basis for an important assumption to the study.

The thesis asks the question if service members appreciate. The concept appreciate is used over other terms to best capture the level of learning this work seeks to answer. In a way this is also a limitation to the study, because capturing higher levels of learning may not be possible for the term asymmetry. The above illustration of perception forces this study into the affective learning domain. Therefore, appreciation is used to capture the value that service members place on asymmetry. It does not question the application of this appreciation, which is another thesis. Chapter 3 expands and defines appreciation into stated measures, but a simple and effective definition is, “To be fully aware of or sensitive to; realize” (Berube 1997, 121).

Service members are defined by active US airmen, Marines, soldiers and sailors. A critical aspect to this research is a survey completed by random service personnel. This sample serves as a proxy for the entire population of service members. Chapter 3 clarifies the population and sampling frame within the methodology.

Assumptions

Several assumptions allow this thesis. The first and most important is that asymmetry is a concept. This is in contrast to terms used to issue orders, such as “attack” or “fire.” Because asymmetry is a concept, it should therefore be applicable to all levels of war: tactical, operational, and strategic. This assumption stands alone, because it does not delineate the level of appreciation (or application) needed in each level of war. The assumption is simply: Asymmetry “affects all levels of war” (Hall 2003, 46). In defense of this assumption, it is important to comment that asymmetry is already present in doctrine closely associated with tactics, operational art and strategy. Although some persuasive authors make a clear distinction between the three levels of war and asymmetric, this study does not.

Another important assumption is derived from the perception example in the last section and is expanded on in chapter 4: Based on current US doctrine and use, no two points of view will likely be the same when using the term asymmetric to explain military applications. Contemporary mathematical force ratios cannot explain how weak is weak, and a method that appears unbalanced to one commander, may be expected by another in the same force. Chapters 2 and 4 will expand on the prevalence of perception, but clearly, the term is no longer used with a dictionary meaning in mind (save some), but rather with a mental capital “A” that is already embedded in US doctrine. This is not saying that a common appreciation or awareness of the concept can never be attained or measured. It does however highlight the difficulty of this research.

Regardless of perception, asymmetric is not simply something new; in the literal sense. The distinction is that just because some tactic, strategy or weapon is new, does

not instantly make it asymmetric. This assumes that new implies unbalanced, and that is rarely the case: And if it is, it is not for long. If this were true, the atom bomb, Air-Land-Battle doctrine, and satellites in space would simply be a kin to today's asymmetric weapons, doctrine and environment. Yet each of the fore mentioned required volumes to define them, their use, and this is ongoing. More simply said--why use asymmetric if new defined the concept? An expanded assumption from this does allow for changes in asymmetry over time. Time and other characteristics of asymmetry are explained in chapter 4.

Last, asymmetric is not the doctrinal Principle of War--Surprise, "to strike the enemy at a time or place or in a manner for which it is unprepared" (JP 3-07 1997, 667). Granted, striking the opposition while he is unprepared will most likely provide you an advantage, but it is not the complete asymmetry this thesis seeks to answer.

These assumptions clarify the need to define with absolution our definition of the term asymmetric in US doctrine. The term cannot be routinely tagged to others with little or no appreciation to its doctrinal meaning or application. An Army Lieutenant Colonel summarizes the dyslexic appreciation level and his frustration, "Warfare has always been asymmetric. The use of asymmetry as a learning tool serves no purpose" (Survey comment).

Limitations and Delimitations

This study has two major limitations that were beyond the researcher's control. These were the scope of the research, and the amount of time to complete it. Thousands of doctrinal manuals exist and there are literally millions of US service members. It is not possible to capture all doctrinal references that pertain to asymmetric, or define the

appreciation of all service personnel in the time available (or perhaps ever). To offset these over-arching limitations, conscious boundaries were imposed on the study. A less significant, but present limitation is the timeliness of doctrinal references. This is explained fully in chapter 2.

This study is feasible due to imposed constraints by the researcher. First, the literature review in chapter 2 is narrowed to only a finite selection of joint and branch doctrinal publications. Second, a fixed sample population of US service members is selected to serve as a proxy for all service members. The research methodology in chapter 3 explains how these delimitations were refined and selected to decrease the threat to the validity of the research, and ultimately the conclusion.

Significance of the Study

> A more general and complete definition of asymmetry is needed as a foundation for doctrine and for integrating maximum adaptability and flexibility. (2001, 31)
>
> Dr. Steven Metz, *Strategic Asymmetry*

This study holds significance for several reasons beyond the continuous cry for it. First, this study will illuminate discrepancies in service and joint doctrine--specifically in the definition of asymmetry. It will also call into question how and when the word is used and provides a summary definition of asymmetry based on this study's research. Second, the results will provide a benchmark level of appreciation in service members for current and future publications and training. The research also allows each branch of service to gauge its doctrine and troop appreciation level. Additionally, it can serve as a tool to educate current personnel and as a source for military history of our time. Finally, this

study will serve as a preface to future research into the contemporary application of asymmetry.

Summary

This study will answer the primary research questions: Do service members appreciate asymmetry? The two main functions that control the answer to this question are: service and joint doctrine; and service members' appreciation level. The literature review (chapter 2) expands doctrinal definitions with a summary of joint and service definitions and uses, and adds contemporary schools of thought on the concept. The research methodology (chapter 3) outlines the creation of an instrument to measure service members' appreciation; the result is a distributed survey. Chapter 4 provides qualitative and quantitative analysis of the doctrine and the survey results and offers some limited conclusions; while chapter 5 completes the study and provides an overall conclusion from the analysis and makes recommendations based on them. Additionally, the final section of this study posses expanded topics for future research.

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[1]These terms are interchangeable throughout the document. The reader should not attempt to infer any conclusions from the author's word choice.

CHAPTER 2

LITERATURE REVIEW

> The word asymmetry highlights the problem of using terms loosely or improperly. When this happens, words are not properly understood, confusion reigns, and endless time is spent in futile explanation. (2001, 33)
>
> Timothy L. Thomas,[1] *Deciphering Asymmetry's Word Game*

This chapter will examine what sources are available to service members. From these, leaders and subordinates should be able to learn, understand, and then explain what asymmetry means; and ultimately use this to their military advantage. This chapter provides facts to the contrary; asymmetry and enlightenment via doctrine is not always clear or attainable. Although there is wide interpretation and definitions across all of the services and in modern professional writing, there is one positive trend--a common definition. There are two major themes that will become clearer in this chapter; some references and authors define the word, but more, simply use it. An example of its use is, " . . . protection of domestic ports and the US maritime transportation system from asymmetric warfare and terrorist threats" (JP 3-57 2001, A-H-2). In this case, no attempt is made to define 'asymmetric warfare,' but a faux assumption to the service member is that it will include 'domestic ports' and 'transportation.' For the purposes of clarity and brevity, this review focuses on defining the term. It also provides insight into discrepancies that are discussed in greater detail in chapters 4 and 5.

An important aspect of this review is the timeliness of the information. For the purposes of this thesis, timeliness may be as relative as the term investigated. Steven Metz's "Strategic Asymmetry" article in the 2001 *Military Review* publication recognizes

that asymmetry was evident in the Cold War period, but was not yet labeled asymmetric. By the early 1990s asymmetry was taking shape, but not completely accepted or understood (2001, 23). Yet a study from 1991 asks and answers the question, “Why do weaker powers in an asymmetric conflict situation engage in wars against their stronger opponents?” (Thazhakuzhyil 1991). Chapter 1 reminds us that asymmetry is perhaps as “old as war itself.”

Many military publications go through a long process of refinement and final publication. Documents dated 2001 may have been first drafted in 1997. It is therefore difficult to articulate with absolute accuracy what the DOD and its services are currently proposing. More evidence of this is found in recent contemporary works, in which authors debate the relative meaning, use, and application of asymmetric. To provide understanding to the limits of this timeliness, a purposeful attempt is made in this chapter to provide the date and quoted text of these documents. Every attempt is made to cite the most current work and in some cases these include publications in the “doctrinal review and approval process” (or DRAG in Army jargon). Occasionally, a superceded manual is used to contrast changes over time and provide a limited trend.

This review is purposefully restricted and addresses only a fraction of the sources that address asymmetry. These include documents that military service personnel would use to learn or explain other terms, definitions, and concepts: Joint publications to include other joint service documents, Army Field Manuals, Air Force Doctrine Documents, and Naval and Marine Doctrine Publications are included. In addition to these sources, the chapter provides additional and critical insight from professionals that write about military ways and means. Chapter 3 outlines the specific methodology used to create this

chapter. The purpose of the remaining subparagraphs is to provide a basis for analysis in Chapters 4 and 5.

Joint Publications

Joint doctrine is defined as the "fundamental principles that guide the employment of forces of two or more services in coordinated action toward a common objective" (JEL CD 2003). As mentioned in chapter 1, JP 1-02, *DOD Dictionary of Military and Associated Terms*, does not address asymmetry. Yet the term appears 438 times on the *Joint Electronic Library* (JEL) CD-ROM that includes 99 completed manuals, back issues of *Joint Forces Quarterly* (JFQ) and other miscellaneous joint service information. An interesting point about asymmetry and JFQ is that in the autumn 1995 issue asymmetric is used in its pure English form defined in chapter 1. By the summer of 2000, it has expanded to 15 entries with as many uses; asymmetric: advantage, approach, method, threat, concept, engagement, tactics, and containment (See Table 1 for a complete list of all asymmetric and associated terms found in this review). This trend of use continues in the doctrinal publications, but less effort is made at a clear, stand-alone definition.

The first clear definition of asymmetry as it applies to military applications comes from JP 1: *Joint Warfare of the Armed Forces of the United States*. It echoes many and provides a clear concept; "Asymmetric Threats." It states, "A timeless fundamental principle of the profession of arms is to avoid the strengths and focus on the vulnerabilities that will most rapidly and decisively cause the opponent's defeat" (2000, II-3). It continues and warns combatant commanders to plan for threats that would seek to attack their vulnerabilities. In a further effort to define asymmetry, JP 1 makes a clear

distinction between “symmetric” and “asymmetric;” a difference in types of forces and their capabilities (V-3). Yet the publication’s division of symmetric and asymmetric warfare (VIII-1) counters each other, implying that symmetric warfare would seek to defeat his opponent slowly and indecisively. Or is the publication referring to the number of forces and capabilities associated with them? In the end, JP 1 clouds its own definition of asymmetric threats.

Service members are apt to find divergent explanations of asymmetry in different JPs. Joint publication 2-01.3, *Joint Tactics, Techniques and Procedures for Joint Intelligence Preparation of the Battlefield* produces some likely tools or characteristics of what service members and commanders should look for in asymmetric threats: offensive information operations, camouflage, concealment, deception, WMD, theater missiles, unconventional warfare, and terrorism are a few (2000, IV-2). Joint publication 3-0, *Doctrine for Joint Operations*, provides a definition of an “asymmetric environment,” “Many of today’s joint operations preclude conventional force-on-force operations” (2001, II-1). An assumption is that the threats defined in JP 2-01.3 would be found in this same asymmetric environment? Two contrasting notions identify themselves in the publications’ explanation. An oversimplified example sheds some light on this interpretation.

First, it was not long ago that the USSR threatened the US with theater missiles in Europe (and vice versa). Although missiles may have provided an advantage, they were certainly not called asymmetric. It was accepted that theater missiles would be part of that conventional force-on-force engagement. Weapons of mass destruction, such as nuclear missiles were also not called asymmetric, but rather what they were--a nuclear

missile and a relative advantage. These two joint documents would have a service member believe, although oversimplified, that encountering camouflage meant asymmetric threat and therefore an asymmetric environment. Neither is true, but the lack of clarity is evident. The other notion is the use of conventional and unconventional when describing asymmetry in military ways and means.

Unconventional warfare (UW) is defined by the *Joint Doctrine Encyclopedia*, "A broad spectrum of military and paramilitary operations, normally of long duration, predominately conducted by indigenous or surrogate forces who are organized, trained, equipped, supported and directed in varying degrees by an external source" (JP 3-07 1997, 713). The dilemma for the service member is this; if there are instances of UW, then the threat is most likely asymmetric and operating from or in an asymmetric environment. This would also imply asymmetric warfare, but only if the unconventional warriors were not seeking an advantage in their operations. This example is included to further support asymmetry and perception explained in chapter 1.

The term matures in JP 3-0 to include "asymmetric actions." These are clearly used in favor of the US and in an offensive capacity. The publication advocates that commanders take advantage of US strengths and attack the enemy's weakness, specifically when he is not yet postured to fight (II-1 and III-9). Yet this definition already has another term--preemptive in the vernacular or spoiling attack in doctrine. JP 3-03 refines actions with an "asymmetric engagement," "The properly functioning joint force is powerful in asymmetric attack, posing threats from a variety of directions with a broad range of weapon systems to stress the enemy's defenses" (I-2). The importance of this definition is an attempt to add value or measure to the asymmetric attack; varying

weapons systems and stresses placed on the enemy's defense; and although not clear--stresses on all of the enemy's functions. An altogether different publication provides a complex visual description of this definition (see Figure 1), which also serves as a summary of joint publications, and asymmetry:

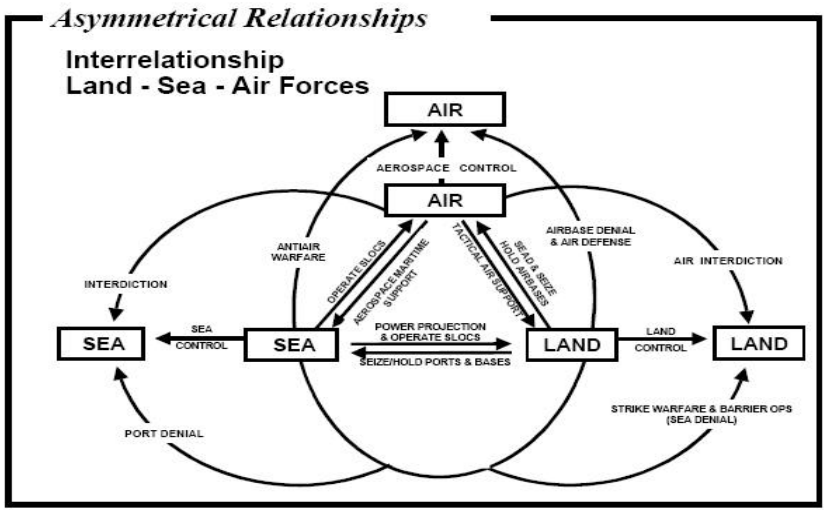

Figure 1. Visualization of Asymmetry in Joint Operations.

Source: Joint Forces Staff College 2000, 3-12.

Army

Army doctrine and publications have, perhaps more than any other service, taken lead in predominate use of asymmetry in military jargon and text. And it is clear that this predominance is expanding. A staple FM in company and field grade ranks is *Operational Terms and Graphics* and is used primarily by the Army and to a lesser extent the Marines (found in MCRP 5-2R). Its primary purpose is to communicate via terms and graphics, much like the title demonstrates. This makes for a very interesting addition in

the most recent version and enunciates the important notion of timeliness in doctrine (FM 101-5-1 1997).

The September 1997 Field Manual does not mention asymmetric. However, the 2003 DRAG version does, “Dissimilarities in organization, equipment, doctrine and values between other armed forces (formally organized or not) and US Forces.” The definition also provides a contrast to military symmetry similar to JPs, yet expanded, “Engagements are symmetric if forces, technologies, and weapons are similar; they are asymmetric if forces, technologies, and weapons are different, or if a resort to terrorism and rejection of more conventional rules of engagement are the norm” (FM 1-03--DRAG 2003, not in circulation). Unfortunately this draft definition uses an already accepted term to define itself--which is (with some liberty) unconventional (or less than more is simply un-).

The leading segment of this definition does provide soldiers with an all encompassing series of characteristics that include measures. The new definition also applies asymmetry as singular and in a stand-alone context. It plainly provides a series of measurable instances that would convince a trooper that asymmetry exists. These are succinctly echoed and expanded in FM 3-0, *Operations*, which is discussed in greater depth below.

Army FMs are similar to JPs in that they simply use asymmetric throughout doctrine. A clear example includes FM 3-0, “ . . . operational fires with operational maneuver generates asymmetric, enormously destructive, one-sided battles” (2001, 4-7). In this case, asymmetry is an adjective as described in chapter 1 and is repeated by ‘one-side.’ Chapter 1 introduced FM 3-0 and reminds soldiers that the document is the

“keystone” to full spectrum operations that will provide them the ability to dominate land warfare. In support of this, the Army has added asymmetry to its “Fundamentals of Full Spectrum Operations” that provides “the basis for efficient and effective . . . Army forces” (4-2). Within these fundamentals, asymmetry is grouped under “Army Capabilities” that include: “Task Organization, Combined Arms, Command and Support Relationships and Complementary and Reinforcing Effects” (4-27--4-32).

Operations continues with a good description of a difficult term, “In one sense, there are always asymmetries between forces: differing circumstances lead to differing military structures” (4-31). There is nothing overtly new about this sentence, but the doctrine highlights it with an explanation of a “degree” of imbalance and the ability to use this measure to “exploit” advantages. Additionally, the doctrine relates asymmetry to “time” and admits that an advantage is reduced over time, while accepting the reality that opponents adapt. Although 3-0 uses this explanation in doctrine for US means, which is offensive in nature, it is easily surmised that the US’s enemy will also use asymmetry--matching friendly forces by degree, exploitation, and time. Unfortunately, the vignettes provided as examples to clarify asymmetry fall short of providing an absolute defining measure. These include a US “asymmetric attack” via air assets on Serbian ground forces that used concealment to reduce their combat losses. In this case, the Serbs negated our advantage (4-31) with camouflage.

Two additional characteristics are provided by *Operations* and they are discussed further in chapters 4 and 5. This is the concept that asymmetry effects both friendly and enemy forces simultaneously. Joint doctrine hints at this, but it is not as clear. As important, is the idea that higher-level units will take longer to counter asymmetry. Time

is not the only factor with larger sized organizations. Army doctrine makes clear that organization, training and equipment may have to be adapted to negate or reverse asymmetry imposed by enemy forces (4-32). This is not only more difficult, but makes a distinction between the size of units and perhaps the level of war. As defined in chapter 1, this thesis assumes that because asymmetric is found in all levels of doctrine, it is also found at all levels of war.

At the purely tactical level of war, The Army uses FM 3-90, *Tactics*, "to win in combat" (2001, xiii). The review of this manual adds little to the definition of asymmetric, but does provide an apparent lapse or directed effort on the part of the Army not to define it. In fact, for a manual released one month after *Operations*, it mentions very little in the way of asymmetry in military applications. It does use the word on six occasions, but each entry directs the soldier to FM 3-0 for a definition. This is common in doctrine, but usually the answer is nested in the sourced document. In the case of 3-90 and 3-0 it is not so clear, but perhaps it is the relative nature of the word?

Navy and Marine Corps

The Navy and Marine Corps may have the same secretary; and although some consider them one force, they are technically and surely two separate services. Regardless, they are closely tied in many ways. This author purposely combined this portion of the review to expand one aspect of an undisputable split in the two services. This difference is in the use of asymmetric in Navy and Marine Corps doctrine and ultimately in appreciation.

Put bluntly, the Navy does not define or use the term asymmetric. The oddity of this is magnified by the 2001 Naval Warfare Publication (NWP) 3-56, *Composite*

Warfare Commander's Manual. This author was told by a senior-ranking sailor that this manual was the essential location for, and the core of Navy doctrine. It truly is an all encompassing document, yet after listing a dozen joint publications as a reference; it still does not mention asymmetry. It clearly parallels joint and other service doctrine with this introduction, "Notwithstanding the demise of the Soviet Union, potential air, surface, subsurface, and littoral threats facing our navy forces have continued to grow in recent years. These new threats have resulted from improved weapons, sensors, and delivery systems" (2001, 1-1). The parallel ends by not addressing asymmetry, or least not calling it such.

Other prominent Navy doctrine searches included Naval Doctrine Publications (NDP) 1 through 5. These NDPs include Navy fundamentals in intelligence, warfare, logistic and planning; and no mention of asymmetry. Admittedly, these sources are older than joint and Army publications and range from 1994 to 2001. Sailors will find one specific use of asymmetry--"asymmetrical sweep," but this has everything to do with the English use of the word and maritime mine-clearing.

Conversely, the Marines do explain asymmetry in clear and unambiguous language. Marine doctrine makes an obvious distinction when using asymmetry--it is tied to strategy. This should not be confused with the strategic level of war. The following document makes it clear that strategy applies to all levels of war. Marine Corps Doctrinal Publication (MCDP) 1-1, *Strategy's* outstanding definition, "An asymmetric strategy is one that attempts to apply one category of means against another category, to use some means to which the enemy cannot effectively respond in kind" (1997, 66).

The beauty of this definition allows Marines to "educate the mind" by using it (MCDP 1-1 1997, Forward to document--no page). Although this doctrine does contrast and provide some examples of asymmetric and symmetric strategies, the definitions of each stand alone. They are both clear in word and vague enough for application. Means are left for the Marine to decide, as are the measures of effectiveness. The definition is also neutral in application. It is neither offensive nor defensive in nature, and leaves open the interpretation that Marines are someone's enemy too. This doctrine also admits that most strategy is a mix of symmetry and asymmetry and offers this passage that summarizes an often difficult concept, "The interplay between asymmetry and symmetry in any struggle is unique and covers a wide range of possibilities" (68). This latitude in definition is discussed further in chapter 5.

The Marines doctrine matured in four years from the publishing date of MCDP 1-1, *Strategy*. In essence, it has come closer in line with joint publications, but still provides refreshing clarity. Similar to the Army's *Operations* manual, the 2001 MCDP 1-0, *Marine Corps Operations*, has added asymmetry to their "Tactical Tenets." Intermixed with tempo, surprise and adapting, there is asymmetry; "means gaining advantage through imbalance, applying strengths against an enemy's weakness in an unexpected way" (6-38). This doctrine provides some less enlightening examples of asymmetry, such as "fast moving tanks" in the enemy's rear area. It does however, provide for two important concepts already noted: asymmetry erodes over time; and the enemy is just as likely to apply it.

A curious fact from Marine Corps doctrine surfaced during the research. There is no mention of asymmetry in MCDP 2, *Intelligence* or 5, *Planning*. Yet both were

published in 1997, the same year as MCDP 1-1 that was mentioned earlier. *Expeditionary Operations* or MCDP 3 was published in 1998 and does use the term on three occasions. If nothing else this confirms a constraint to this research; the timing of doctrinal publications makes it difficult to capture an all-in-one definition by service.

Air Force

Airmen consulting their doctrine will gain limited, if not a conflicting appreciation for asymmetry. The vast preponderance of its use is dedicated to the English definition. This is inevitably linked to what this service mainly does--they fly, or support air operations. And aircraft design, even to the untrained eye, lends itself to symmetry in shape and then some. Yet other Air Force doctrine does provide for asymmetry in a non-flying description. Later in this section it will become clear that this use is either decidedly threat based or offensive in nature.

An example of the English form of asymmetry highlights the need for its use in Air Force doctrine. Air Force Instruction 11-2A/OA-10 V3 provides a very common use, "Configure aircraft so as not to exceed an asymmetrical load moment of 12,000 foot-pounds" (2002, 14). Similar publications stress the importance of asymmetry and symmetry in flaps, thrust, weapons-configuration, cargo, loading and maintenance procedures. It is obvious that this term is required in Air Force doctrine. It is also refreshing, because each English occurrence is quantified in some math or physics application.

Other doctrine in this service addresses the question that this paper poses. Do Airmen have an appreciation for asymmetric? If they do it will based on a threat-type use: measures, strategy, terrorism, and WMD. Recent Air Force Handbooks (AFH),

Manuals (AFM) and Doctrine Documents (AFDD) are similar to other services; they equate asymmetry to threat, and to a narrow extent, a friendly offensive role.

The glossary from the 2001 AFH 10-2502 defines “Asymmetric Threat” as “Emerging threats that are unconventional in nature, such as WMD threats” (162). The more recent 2002 AFM 10-2602 expands this same definition and explains that adversaries will use “methods” and “strategies” to counter obvious US strengths.

The 2000 AFDD 2 adds “Asymmetric Operations” to Table 1: “Asymmetric attack uses the speed and range of aerospace power, couple with its three-dimensional advantage, to strike the enemy where it hurts the most.” The airman will find that the doctrine defines ‘where it hurts the most’ as command and control facilities, critical infrastructure and other centers of gravity. The advantage, and thus asymmetry, is the Air Force’s precision strike capability. According to doctrine, this type of operation is best conducted in conjunction with “Parallel Operations,” opposed to “serial” and symmetric ones (2000, 7-8).

The discussion of asymmetric and parallel operations in AFDD 2 is confusing at best, but it highlights the lack of a clear and standalone definition. Air Force doctrine does not attempt to quantify these operations other than the quote above. Adding to this puzzle of terms, the doctrine admits that air-to-air operations are serial and symmetric in nature. It does not leave open the possibility of applying its own definition of asymmetric operations to air combat. Yet this thought is obvious to the reader; why not use my speed, range and three-dimensional advantage to destroy threat aircraft? Of course pilots will.

The Air Force doctrine addresses asymmetric threats similar to joint publications and with less definition than the Army and Marines, but more than the Navy. It makes a

distinction in offensive use; air-ground attacks are asymmetric, while air-air combat is not. One additional fact concerning Air Force doctrine is noteworthy. The Air Force Basic Doctrine (AFDD 1) published in 1997 includes asymmetry eight times, but the 1999 Air Force Glossary omits it. By the year 2000 it has become a type of operation and a core principle to the air-combat function.

Professional Publications

Similar to doctrine, recent professional work is filled with the term asymmetric. A simple Amazon.com book search using asymmetry produces 13,846 results (conducted on 14 February 2004). Granted, these were not all military in nature, but it gives some appreciation to the prevalence of use. The following review is limited, but important to provide the broadest definition possible (see chapter 4 or appendix C). Many of the works reviewed were very similar to already published doctrine, but not all. An added and fair assumption is that service personnel have read comparable work in pursuit of their PME.

A recent book tackles the topic head on; Roger W. Barnett's *Asymmetrical Warfare*. Barnett confirms the clarity problem of asymmetry, but never concisely closes in on the definition this thesis seeks. Rather, he admits that it is a "concept to be bounded reasonably" and it "must be more finely tuned" (2003, 15). Keeping in mind that his book addresses the entire concept of "asymmetrical warfare" from a strategic view, he does provide some baseline characteristics of the concept: "one cannot (or will not) respond in kind" and "asymmetric attacks and defenses lean toward the counterculture" (16). This counterculture breaks stride from doctrinal references and is the author's primary thesis throughout the work. Another important aspect is the delineation (and relation) of

asymmetry in the ways, means, ends and risk of military operations. This convenient structure is also utilized in chapter 4.

Barnett provides no new examples of this warfare, which include: terrorism, taking hostages, NBC and environmental intrusion. The common denominator of these is the aspect of counterculture, or what the author equally defines by constraints--this is new. These include operational, organizational, legal and moral shortcomings of the US, which ultimately create the conditions for weakness, strength, and eventually imbalance. In his own words, "the United States has been accepting and undertaking constraints on its ability to employ the military instrument such that it has lost many degrees of freedom, provided vulnerabilities and asymmetrical opportunities to those who would not be so constrained" (153). The "four axes of constraint" (154) is equally worthy of discussion, but the US legal and moral difficulties best highlight a concept accepted across the levels of war.

The maxim, "the playing field is not level" best and simply describes Barnett's constraints. The US has national and international laws that prevent it from action, but would-be adversaries do not prescribe to them. Therefore, this creates the imbalance and allows threats to wage asymmetrical warfare. The moral constraint argues a similar point and also contrasts the threat; "Americans must find release from powerfully ingrained moral strictures" (83). Barnett's four constraints are valid, but the legal and moral aspects add immeasurably to a more comprehensive appreciation for asymmetry.

A balancing notion of asymmetry (if that is possible) comes from Robert R. Leonard's *The Principles of War for the Information Age*. This work is not devoted to the thesis topic, but provides a differing avenue for consideration. The books' fourteenth

chapter, “The Law of Duality” (1998, 226-239) asserts there is “subjective” and “objective” phases of conflict, where subjective is symmetric, and objective is asymmetric.[2] This notion contrasts the existing principles of war, offense, and defense as we know it, and eventually concedes: “this dichotomy - this bloody and deeply ingrained dual failure to account for both phases of conflict - pervades military history and theory” (232). The importance herein is the fact that conflict wears two faces, and if either phase is not understood there can be no success--no weakness to strike or imbalance to capitalize on. In summary, Leonard says an objective--asymmetric understanding “is essentially the ability to mentally connect two ideas that were previously unconnected” (239). The reader should not lose the concept of time in this quote.

A good source for service personal to expand their understanding of contemporary and future diplomatic, information, military and economic (DIME) trends and relationships is *Stray Voltage* by author Dr. Wayne Michael Hall. Dr. Hall’s interpretation of “Asymmetric Warfare” is almost too encompassing and difficult to completely understand, but this also may be the nature of the concept. The adjectives used are numerous: intangible, surprise, shock-effect, indirect, influence, unexpected, unanticipated, deception and manipulation are just some (2003, 43-48). Hall also recognizes the long history of asymmetry, but provides one central idea linked to the concept, “the increasing capabilities the information revolution presents for asymmetric adversaries to help create the offsets they desire” (50). Hall considers this new, but Jean de Bloch did not lose the idea that innovation offsets anything in1902. Regardless, it is accurate; and the importance of it is found in the recognition that capabilities change, and is not necessarily the act of change.[3]

Dr. Steven Metz deserves credit for an all-encompassing pass at "Strategic Asymmetry" in the July-August 2001 *Military Review* article. The author says it best:

> In military affairs and national security, asymmetry is acting, organizing and thinking differently from opponents to maximize relative strengths, exploit opponents' weaknesses or gain greater freedom of action. It can be political-strategic, military-strategic, operational or a combination, and entail different methods, technologies, values, organizations or time perspectives. It can be short-term, long-term, deliberate or by default. It can also be discrete or pursued in conjunction with symmetric approaches and have both psychological and physical dimension. (25)

In addition to this concise explanation, Metz offers several other characteristics of asymmetry: It is "positive" or offensive--"uses differences to gain advantage;" or it is "negative" or defensive--"an opponent's threat to one's vulnerabilities" (25). He also outlines six forms of asymmetry: methods, technologies, will, morale, organization, and time perspective (27). Dr. Metz's strategic point of view and asymmetry is worthy of reading in its entirety.

The author Colin Gray approaches asymmetric threats and the concept of asymmetry-in-general from a clearly different point of view than most. The 2002 *Parameters* article describes several characteristics of asymmetry, and supports each of these with good arguments that pass the common sense test and more critical evaluation. Even though Gray's main thesis centers on a discussion of threats, his detailed description draws out many of the spurious traits that others use to describe or define the asymmetric battlefield. Colin Gray breaks from the rank and file in his summary, "the contemporary American fascination with asymmetry comprises rediscovery of the stunningly obvious. To behave in ways different from those expected by an enemy can be simply good tactics, operational art, and strategy" (2002, 14). In essence, Grey contends that asymmetric simply "means different;" and because an argument can be made for

differences in all things--everything was, is and will remain asymmetric. The author blasts defense officials and others for discovering, or re-discovering an age-old concept that has become "the latest fashionable Big Idea (following on from the concept of a revolution in military affairs)" (13).

Colin Grey continues and says, "asymmetry essentially is a hollow concept" (14). The justification for this argument is based on the fact that merely being different does not present an advantage or disadvantage by itself. In the end, this author discounts the importance of the term asymmetry, but not necessarily the characteristics that create differences. The significance of this work is not lost in chapter 4.

In summary, asymmetry and military appreciation is a difficult and wide-ranging affair. There is no one-single source that definitively captures the concept. The more accurate summary to this chapter is found in chapter 4: Analysis and Conclusions. A pseudo-definition or compilation of the above material answers an important subordinate question to the thesis. This will also serve as the basis for conclusions in chapter 5.

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[1] Mr. Thomas is acknowledged for his committee assistance already, but a singular recognition is here for his work in the field and for thought provoking discussions beyond asymmetry.

[2] Leonard provides no groundbreaking definition and uses like, unlike and vulnerabilities to explain objective.

[3] The author thanks Dr. Hall for an inspiring conversation that contributed to this work and recommends *Stray Voltage* for a comprehensive sense of what asymmetry may comprise today, and in the future.

CHAPTER 3

RESEARCH METHODOLOGY

> How often misused words generate misleading thoughts. (1979, 426)
>
> Herbert Spencer, *The Principles of Ethics*

The goal of this study is to determine if US service members have an appreciation for the term asymmetric as it is used in doctrine. The importance of answering the question is directly related to the appreciation of doctrine and ultimately to its application. This chapter outlines the methodology that was used throughout the research process.

The methodology used is best described as deductive. The thesis defines the problem, adds some background, and poses the primary research question. Limitations, delimitations, and assumptions guide the fidelity level of the entire work. The study then provides a lengthy review of service doctrine and other professional material. This evaluation serves a basis for understanding the difficult concept and allows the creation of an instrument to capture a service member's appreciation. The instrument is a scaled survey (see appendixes A and B); after the raw data is collected, it is quantitatively analyzed by response. Qualitative analysis of the aggregate results also supports findings and allows answers to subordinate questions. The study concludes with conclusions from this analysis; answers the primary research question; subsequent questions; and makes recommendations based on this. The chapter layout forms the basis of this methodology. Figure 2 captures the major controlling functions of this methodology.

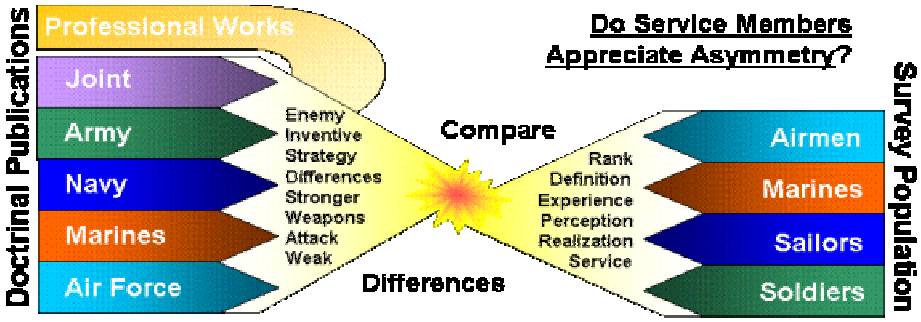

Figure 2. Controlling Functions of Study Methodology

Choosing Doctrine and Validity

Chapter 1 introduced several important assumptions, limitations, and delimitations. These are important to the methodology and the internal validity of the research. Although previously stated in chapters 1 and 2, the literature review was narrowed to only a finite selection. First, the defined selection addressed major US joint and service doctrine to capture a mutual, or a semi common definition that ultimately allowed the research question to be answered--do service members. Refining selections within each service's doctrine was the next step and involved two criteria: newest and common. Newest doctrine provides the most modern definitions of asymmetry. Chapters 1 and 2 illustrate how the term has migrated in definition over the years.

Manuals or doctrine that is readily available to all service members defines common. Readily available includes world-wide-web accessible and CD-ROM based publications (see References Consulted). Therefore, this portion of the research was conducted by searching joint and service web sites that provide advanced electronic search engines. In some instances, (Army and Air Force) CD-ROMs were available that allowed detailed word searches via the Adobe program "Acrobat Reader." To limit the

threat to validity, this researcher (an Army soldier) approached other component experts (at the Command and General Staff College, Fort Leavenworth, Kansas) from all of the services to ensure suitable doctrine was selected. The procedure also gave this researcher a better understanding of how this doctrine was arranged, and allowed more focus searches.[1] Additionally, these word searches often produce thousands of occurrences and it was the researcher's discretion, coupled with the insight from these subject matter experts (SMEs) that provide the final criteria for use in the study. Every attempt was made to draw on occurrences that provide a definition of asymmetry and not simply its use (refer to chapter 2 for additional explanation of use).

A similar method is applied to selecting professional authors for the literature review. Asymmetric is often associated with future warfare and there are a limited number of authors that regularly contribute to the topic. Defining these works and authors becomes a simple process of reviewing published bibliographies and web searches. Similar to the lack of understanding in how all service doctrine is organized, this researcher sought the informal advice and approval of one of these expert authors: Timothy L. Thomas, US Army Foreign Military Studies Office, US Army Combined Armed Center at Fort Leavenworth, Kansas. The researcher also made limited contact via email with John Arquilla (RAND: National Defense Research Institute) and Dr. Stephen J. Blank (US Army War College: Strategic Studies Institute). Additionally, a meeting with Wayne M. Hall, the author of *Stray Voltage: War in the Information Age*, assisted in the selection process. These SMEs provided invaluable insight into additional works and validated in the researches mind that the sources were adequate for the purpose of this thesis.

Survey

The result of the literature review is a series of characteristics of asymmetric that is common across all US doctrine and prevailing works (see Table 1). These characterizes form the basis of the survey questions and ultimately provides the tool to analyze the collected data to service member appreciation (see Appendices A and B). The aggregate of each service's appreciation provides the statistics to form qualitative conclusions.

The survey also had delimitations that allowed this research. This researcher chose officers from the rank of captain (O3) to colonel (O6) and omitted enlisted personnel. Although service members' include all ranks, the selected ranks are primarily responsible for training, plans preparations and ultimately must have an appreciation for asymmetry before it can be trained, planned for, or used. Rank serves as a proxy for experience and education in chapter 4. In addition to the facts above, this sample was also the largest population available during the research period. Chapter 5 promotes the need for additional study that should include all ranks, which can capture an enlisted appreciation for the doctrinal term asymmetry.

As with the doctrinal review, the survey includes data from all of the services. An important aspect of this data, and ultimately the results, is the decision not to attempt to refine military specialties within each service. For example: some Marines are infantry while others are pilots; and some soldiers perform combat operations and others serve logistics functions. The assumption is that service members from the rank of captain to colonel, regardless of service, are grounded in similar basic doctrinal concepts. While the researcher admits that intelligence officers may come in contact with the term asymmetric more often, this does not necessarily provide them any additional

appreciation for the concept. It may even skew their opinion based on the prevalence of threat and asymmetry already found in doctrine?

The survey addresses two main quantitative variables for analysis; rank and service. From rank, analysis is able to distinguish an appreciation for asymmetry based on military experience, if not simply an average time in service. This is important to the methodology, because it is false to pre-assume that more experience would equal a greater appreciation. In the case of asymmetry, the term is relatively new to doctrine. Service component (Army, Air Force, Navy and Marines) provides another variable that indicates greater or lesser appreciation by service. This will serve to answer the subsequent question: Is doctrine being used to gain appreciation? Again, the aggregate results from all of the services will form the basis to answer the primary question.

The survey measures appreciation for asymmetry in military applications. Individually, these measures are: self description--or "do I think I understand asymmetry?"; description of peers--or "do I think my peers understand asymmetry?"; over or under uses; and correct or incorrect use. These statements are recorded using a scale from "Highly Agree" to "Highly Disagree," with five total choices--or a Liker scale. Additionally, one purely quantitative survey question asks the respondent to identify elements of an accepted definition of asymmetry. In this case there are no wrong answers (they are all derived from doctrinal sources), but analysis can demonstrate a greater tendency to one definition over others.

One question asks, "How will your appreciation of asymmetry translate into military success?" This question did not serve to answer the primary question, but rather, provide insight for a future study of asymmetry in its application.[2]

To refine the instrument, this researcher created several draft versions and disseminated them to test ideas and gather feedback. Majors completed twenty-four surveys: twenty-one soldiers, one sailor, airman and a Marine. After responding, the service members were questioned about the ease and time of taking the survey and word choice, and were asked to provide any input. This proved to be a valuable means to the final product. It also invoked twenty-four separate discussions on asymmetry, which helped to solidify in this author's mind the need for the study.

An important aspect in the creation of the survey was the involvement of the Development and Assessment Division (DAD) of the Command and General Staff College at Fort Leavenworth. Several DAD subject matter experts in data collection, interpretation, and statistics provided invaluable assistance throughout the research and analysis process.[3]

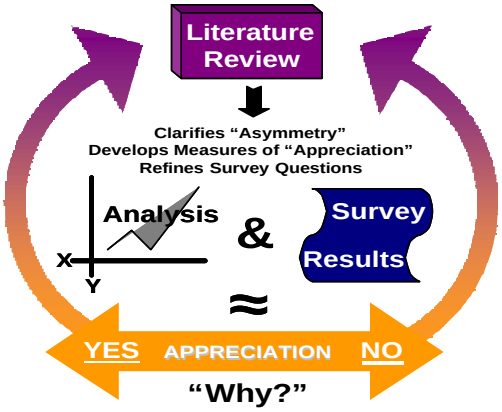

Figure 3. Analysis Process to Obtain Study Answers

The analysis portion of this methodology compares the literature review to the survey results (see Figure 3). More accurately, the results of the survey quantitatively support a greater or lesser appreciation of asymmetry by the measures mentioned above. The aggregate of these measures further defines appreciation by service; while additional statistics support all services, or service members. This portion of the analysis is mainly qualitative, but uses quantitative measures to support the conclusion(s). The final appreciation level by service members is then traced back to doctrinal references to answer subsequent questions and selected anomalies from the survey results. For example: Sailors may have an equivalent appreciation in asymmetry to soldiers, but the review already established a lack of definition in Navy doctrine. Analysis may or may not be able to identify the cause(s) for instances such as this.

The final portion of this methodology uses all of the steps before mentioned and is the conclusion(s). These conclusions are derived from quantitative and qualitative analysis from the survey results and literature review. It also provides recommendations for creating greater appreciation in military asymmetry, and offers additional research proposals for future study.

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[1]Contributing service SMEs: USMC: LTC Anthony McNeill, USN: CMDR John Kuehn, USAF: Lt Col Dirk Hutchison.

[2]This survey question is posed by COL (Ret.) Clinton Ancker (Director, Combined Arms Doctrine Directorate at Fort Leavenworth, KS) coauthor of "Doctrine for Asymmetric Warfare." The author thanks Mr. Ancker for an enlightening discussion on asymmetry and Army doctrine.

[3]Dr. David L. Bitters (CGSC Statistician) provides the statistical analysis in Tables 3-15.

CHAPTER 4

ANALYSIS AND CONCLUSIONS

The purpose of this chapter is threefold: analyze US doctrine from chapter 2 and define asymmetry; analyze the survey results and offer conclusions; and compare service member's appreciation of asymmetric to existing doctrine. The chapter also serves as a venue to interpret service and rank specific results. The volume of doctrine and the complexity of the survey results warrant analysis followed by immediate conclusions. Chapter 5 will: summarize these conclusions; answer the primary question: Do service members appreciate asymmetry?; answer subordinate questions; and recommend future research.

Asymmetry in US Military Doctrine

US military doctrine does not accurately address or define the concept of asymmetry. In addition to this failure, US doctrine worsens the effect by consistently using the word to describe other concepts, actions and terms. The confusing void is found across all of the services to varying degrees, but is founded in joint doctrine. Chapter 2 supports countless examples of multiple meanings, use, and contradiction. This study is not the first and perhaps not the last to derive this conclusion. In singular context this is neither good nor bad, but fact nonetheless. An expanded perspective has a less positive result, as evidence from a survey comment makes clear, "Asymmetry sounds good when we look at it by itself, however, when we are planning our own operations in a stressful, sleep negligent environment, we tend to become fixated on our actions and not so much [on] the asymmetrical [actions] which the enemy may use" (Army Major, survey comment).

The definitions of asymmetry in doctrine are too many, and eventually led the service member to believe that just about anything or everything is asymmetric. Which is true based on the perception assumption in chapter 1. Still the problem remains, because service personnel suffer from inaccuracy. Joint publications tend to rely on the idea of attacking weaknesses, while avoiding strengths. Army and Marine publications are the most mature documents. These definitions expand the concept to include: time, values, and a lack of normal or accepted procedures. The Air Force acknowledges asymmetry in the offense and the defense, but takes a step backwards in 1999 by omitting the concept from AFDD 1 (while it was present in 1997). The Air Force also confuses asymmetry by introducing the concept of parallel operations, because both are too similar. The Navy discuses many of the aspects of asymmetry, but never uses the term. In essence, sailors acknowledge the concept, but not the word (and therefore the concept?). This is in contrast to the other services, which recognize the word, but flounder on the concept. These characteristics of asymmetry are drawn from service wide publications and recent professional works and semi conclude a definition of asymmetry in doctrine.

Table 1 illustrates two final conclusions: Asymmetry from US doctrine has too many characteristics to be grouped into one stand-alone definition; and using asymmetric to explain other terms and actions will undoubtedly lead to confusion. For instance, a soldier may say to an airman that the tank is obsolete, because of the asymmetric environment US forces face. In this example, the environment has to somehow conform to the many characteristics of asymmetry, but it cannot. Therefore the only description and detail the term adds is the one the airman is familiar with based on his doctrine--

three-dimensional advantage. The soldiers' likely meaning is the recent urban or mountainous environment that mechanized forces face in Iraq and Afghanistan.

Table 1. Characteristics of Asymmetry	
Both offensive and defensive	Apply strength against weakness
Inability to respond to an action	Differences: numeric, equipment, organization, values, morals, training, terrain, technology, culture, etc.
Unconventional (not the definition)	
Gaining advantage	Unexpected, unanticipated, surprised
Imbalanced or not equal	Changes over time; grows and erodes
An old concept in conflict	Applies to ways, means and end
Innovative, or new	Avoids strengths
Physical and psychological aspects	Long-term to short-term action or effect
Tactics, operational art, and strategy	Weapons of mass destruction and terrorism
Greater freedom of action	Terrorist, guerrilla, insurgent

Chapter 1 asks, what is asymmetry? The answer is "unbalanced or not alike" and is derived directly from the commonly understood English definition. This has application in military ways, means, and ends, yet it is quantifiable. An example for future doctrine: The XXA1 and the XXA3 models are asymmetric, because the A3 variant extends the optical range by 1200 meters and reduces the electronic signature by a factor of two. This is asymmetric--a difference that is defined in detail!

Defense doctrine and professional journals should clarify the concept of military asymmetry by simply adding an “M” to the beginning of the word--masymmetric. Yes, this is a new word coined by the author. But it also alerts the service member that a description, definition, action, way, mean or end is coming and it will require significant and detailed discussion to clarify the exact nature of the concept. In essence, it launches the audience into the world of unknowns and a mental scramble to make them known. Based on this authors’ doctrinal research, an Army PME through the grade of major, experiences and numerous discussions with peers and superiors over the past ten months, the following paragraphs is offered to the reader and the Department of Defense:

Military-Asymmetry (Masymmetry)

> Asymmetry is imbalance or unequal and is not the same as masymmetry, because it can be quantified with certainty. For example, there is asymmetry between the M1A2 MBT and the M2A3 BFV by approximately 35 tons, which is surely an important fact if forces intend to cross bridges.
>
> Masymmetry is an age-old concept that simply recognizes that a relationship between conditions creates fleeting unknowns. It is synonymous with another timeless phrase that has become common jargon, “the fog of war,” but cannot be left to the maxim alone. Conditions are numerous and are not limited to: physical, psychological, numeric, environmental, perceived and actual objects that affect tactics, operations and strategy in conflict. The relationship is often spurious and involves many existing or created conditions. Recognizing these relations and conditions allows combatants to answer unknowns.
>
> Once the relation of these conditions is known, existing or new doctrinal terms are used to better define the circumstance. Even so masymmetry remains, because it also recognizes constant, diverse, fast and slow change over time--or fleeting. What is definite now may be become masymmetric an instant later. Masymmetry is not solely a reactionary concept, but rather a continuum of conditions, relations and cognition. As such, it is difficult and critical to appreciate at all levels of war.
>
> Masymmetry may or may not create an environment of advantage for friendly or enemy forces and it is not simply attacking weakness, while avoiding strength: Although the concept is applicable in this case, because a series of conditions is created or used to force an unknown on your opponent. Therefore,

> using the term masymmetric to define the concept requires that service members explain the conditions and the relationship between them.
>
> Masymmetry is not an adjective--it modifies nothing by itself. It is not enough to say that masymmetry always exists and be content. Knowing is critically important to successful military operations. Defining, creating or reversing relations to conditions fuses the art and science of warfare. In essence, understanding the masymmetry concept in detail lifts "the fog of war."

In summary, asymmetry is a myth in US military doctrine. This is not necessarily a bad circumstance if you compare the definition of myth to doctrine, "a real or fictional story, recurring theme, or character type that appeals to the consciousness of a people by embodying its cultural ideas or by giving expression to deep, commonly felt emotions" (Berbube 1982, 827). Given some liberty this definition embodies what is associated with doctrine. A disconnect for service members is the idea that asymmetry is commonly felt or appreciated.

Survey of Appreciation

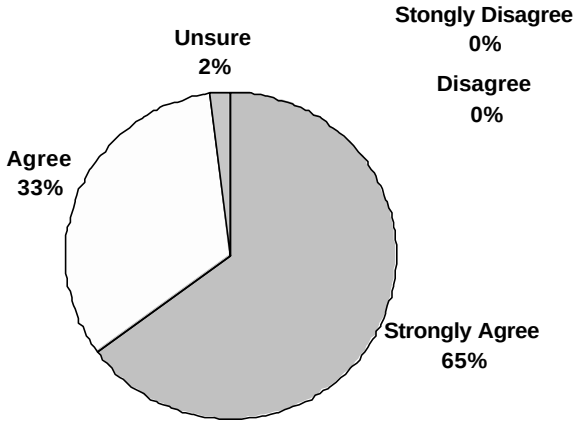
The most critical aspect of this study is the results generated from the survey in appendixes A and B. The next most important aspect is the analysis of this data that allows the primary question to be answered. These statistics are found in Tables 3 through 15 in the Tables section. The analysis blurs the lines between the quantitative and factual percentages and their qualitative meaning--appreciation of asymmetry. The measures discussed in chapter 3 allow this bridge.

Two irregularities in the survey results must be mentioned. First, question nine (How will your appreciation of asymmetry translate into military success?) has only 102 responses from the 254 total responses (this number does not include 11 responses from retired personnel). This was due to a technical shortcoming from the online survey (see Appendix B and www.speedsurvey.com); the data was not collected for this question

only. The 102 complete responses are collected from paper surveys (see Appendix A). The oddity did not affect the overall results, because this question was asked to provide data for future works on asymmetry and application.

The online survey is different from the paper survey. Although the questions remained the same, the obvious change is in the layout of form. This presented a visual problem for the respondent that was not observed until over half of the final data used was collected. The online survey required the service member to scroll through the questions. Depending on the screen size and resolution of the computer used, the scale on the survey disappeared after question four or five. The affect appeared to be negligible after a casual comparison of paper data collected to the electronic data. At that point in the collection, eighty two paper and seventy two electronic results mirrored each other in average and mean to the hundredth decimal. An informed decision was made to resume collection and ultimately to use the online data to create the final statistics. The technical problem could not be fixed.

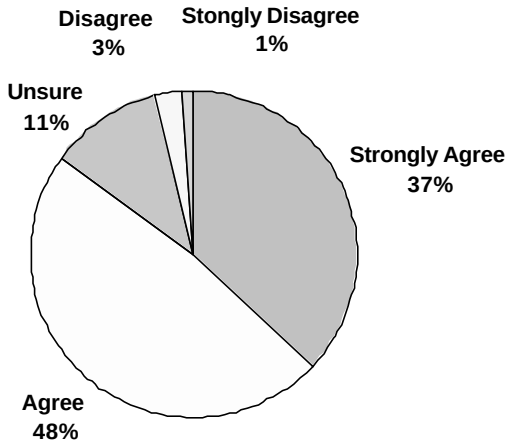
The first measure asked is self-appreciation for asymmetry (see Figure 4). To provide the respondent with a mental benchmark for his appreciation for asymmetry, they were asked to respond to a question on a topic they should be more familiar with--leadership. The result is reassuring, other than the two percent that were unsure (U):



Question 1: I appreciate, or am fully aware of <u>leadership</u> as it applies to military operations.

Figure 4. Graph Results of Survey Question 1

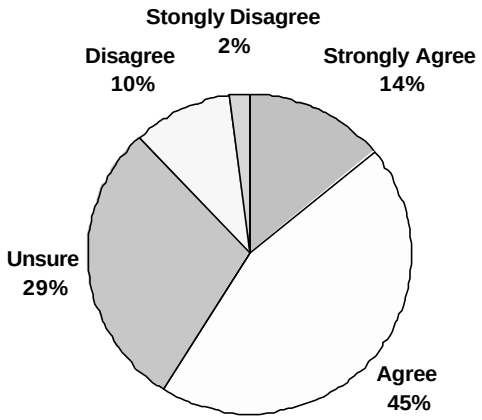
The second question directly asks if the service member appreciates asymmetry and the results were predictable. Compared to leadership, they are less comfortable with asymmetry, but by no order of magnitude to draw any revealing conclusion. The result in Figure 5 by itself heralds a strong appreciation level:



Question 2: I appreciate, or am fully aware of <u>asymmetry</u> as it applies to military operations.

Figure 5. Graph Results of Survey Question 2

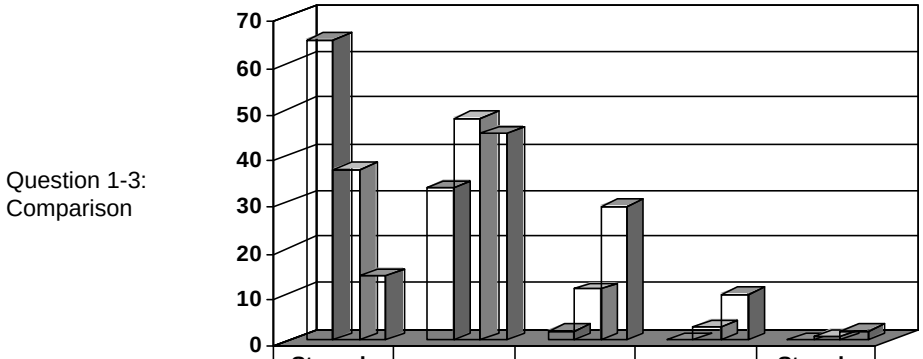
The service member is then asked to rate his peers' appreciation level. This is the second measure of appreciation as discussed in chapter 3. The result in Figure 6 is significant because the percentage of Strong Agree (SA) responses is 13 percent less compared to question two (self-appreciation) and the U-responses are 18 percent greater:



Question 3: My peers appreciate, or are fully aware of the term 'asymmetry.'

Figure 6. Graph Results of Survey Question 3

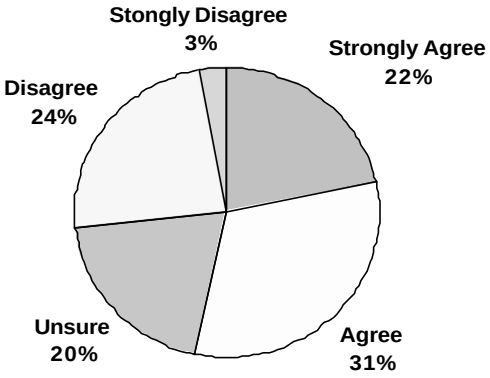
The following graph represents the responses from questions one, two and three (see Figure 7). The significance of the shift in responses leads to an important conclusion: Service members most likely appreciate leadership, but have a smaller amount of appreciation, but appreciation nonetheless of asymmetry. Question three completes the conclusion: I appreciate asymmetry, but my peers do not. Then who has appreciation? The comparison result is a moderate level of appreciation:



	Strongly Agree	Agree	Unsure	Disagree	Stongly Disagree
☐ Bench Mark: Leadership	65	33	2	0	0
☐ Self Appreciation for Asymmetry	37	48	11	3	1
☐ Peer Appreciation for Asymmetry	14	45	29	10	2

Figure 7. Graph Comparing Results From Survey Question 1, 2, and 3

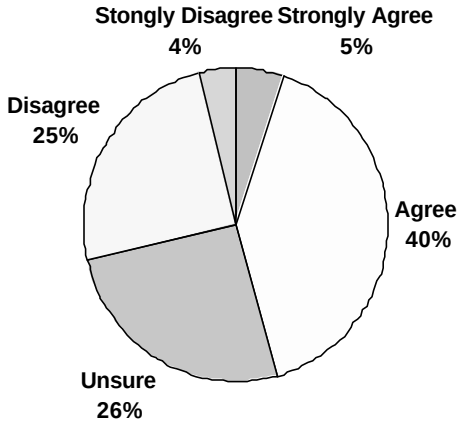
In Figure 8, the question and result standalone. Fifty three (53) percent of respondents SA or Agree (A) that asymmetric is overused, while only 27 percent Strongly Disagree (SD) or Disagree (D) with the statement. The result is a lack of appreciation by service members:



Question 4: The term 'asymmetric' is overused in military jargon and professional discussions.

Figure 8. Graph Results of Survey Question 4

Question five by itself indicates a positive appreciation for asymmetry (see Figure 9), but when it is compared to the doctrine in the next section of this chapter, the results are less encouraging. Still, 45 percent believe that the term is used within the bounds of doctrine and their experiences (SA+A). The results of the question remain mixed as indicated by a 26 percent unsure response and a disagreeing 29 percent (D+SD):



Question 5: 'Asymmetric' is used in accordance with doctrine, based on my education and experiences.

Figure 9. Graph Results of Survey Question 5

This next question expands on the measure of doctrinal use and is also discussed in the next section. The statistic concludes that 45 percent of service members are generally not using doctrine (D+SD) to appreciate asymmetry, while 38 percent are (A+SA). Figure 10 illustrates this delta:

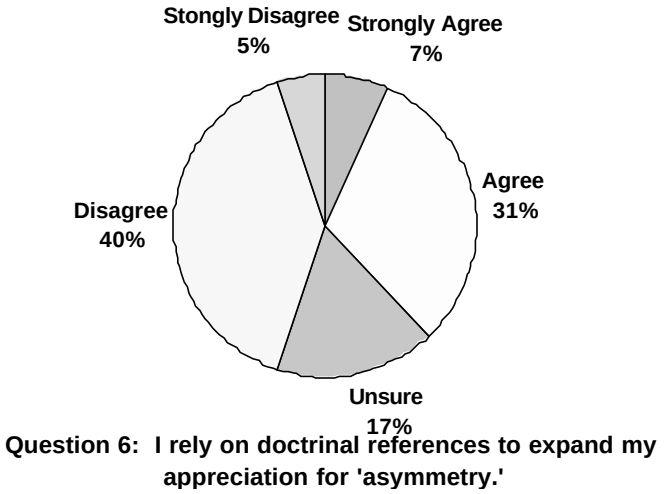


Figure 10. Graph Results of Survey Question 6

A final conclusion is derived from questions five and six when the two are compared (see Figure 11). The graph below plots the percent from responses and the inverse relation of the two curves is clearly evident. The conclusion is that the amount of personnel that believe asymmetry is used in line with doctrine is equal to the amount that fails to use it. In effect, but not statistically comparable, the 45 percent that are not using doctrine could be the same peers that are not fully aware of asymmetry (41% if U-responses are included):

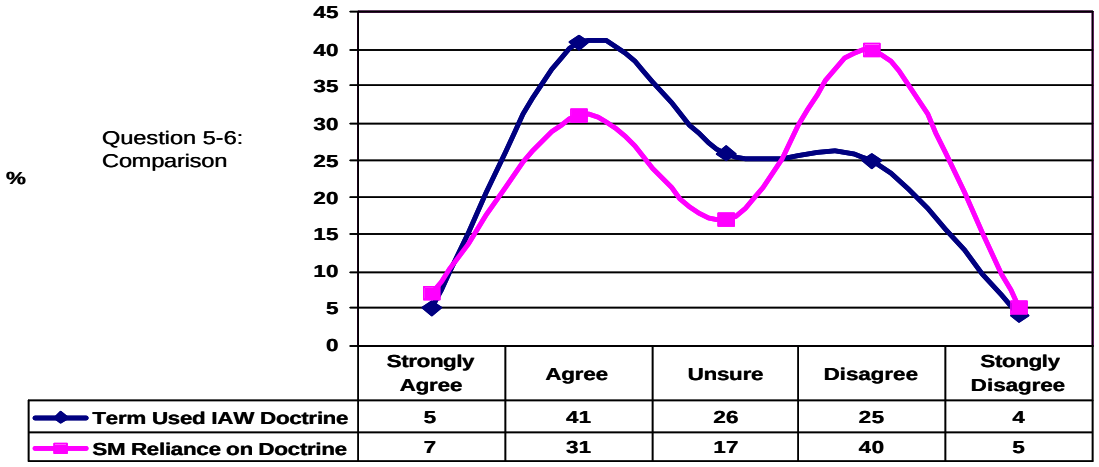
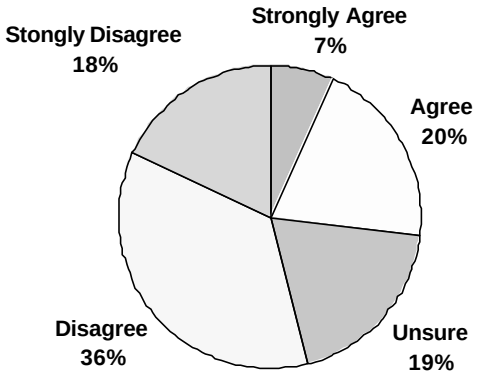


Figure 11. Graph Comparing Results From Survey Question 5 and 6

The last question measuring appreciation presents a doctrinal example of asymmetry and asks personnel to confirm an asymmetric attack. The results in Figure 12 summarize with little ambiguity, a lack of appreciation. Fifty four (54) percent do not agree with doctrine, while only 27 percent do. The 19 percent that are unsure, by default fall into the first category, making 73 percent in contrast to doctrine. This result also calls into questions the findings from Question 5: 45 percent claim to use doctrine. Even a brief review of this data erodes any perceived appreciation service members have. This finding also supports the definition of masymmetry offered in the last section. If doctrine already has a term, concept, or common understanding of a procedure, do not use the term asymmetric, because it does not serve to modify anything.



Question 7: Fixed-wing close air support (CAS) should be considered an 'asymmetric attack.'

Figure 12. Graph Results of Survey Question 7

An additional comparison supports a lack of appreciation. Already established, the vast majority of respondents believe they have appreciation for the concept; while peer appreciation shifts this level down. We can postulate that the truth lies somewhere in the middle. When these data points are compared to the doctrinal example of an asymmetric attack, the resulting curves are nearly opposite to one another. The conclusion is not surprising; personnel think they appreciate asymmetry, but are not able to accept a doctrinal example as truth. Yet the link between the two is not that clear: Perhaps the doctrine is wrong and service members are correct? This idea addressed in the next section. Figure 13 provides the visual conclusion:

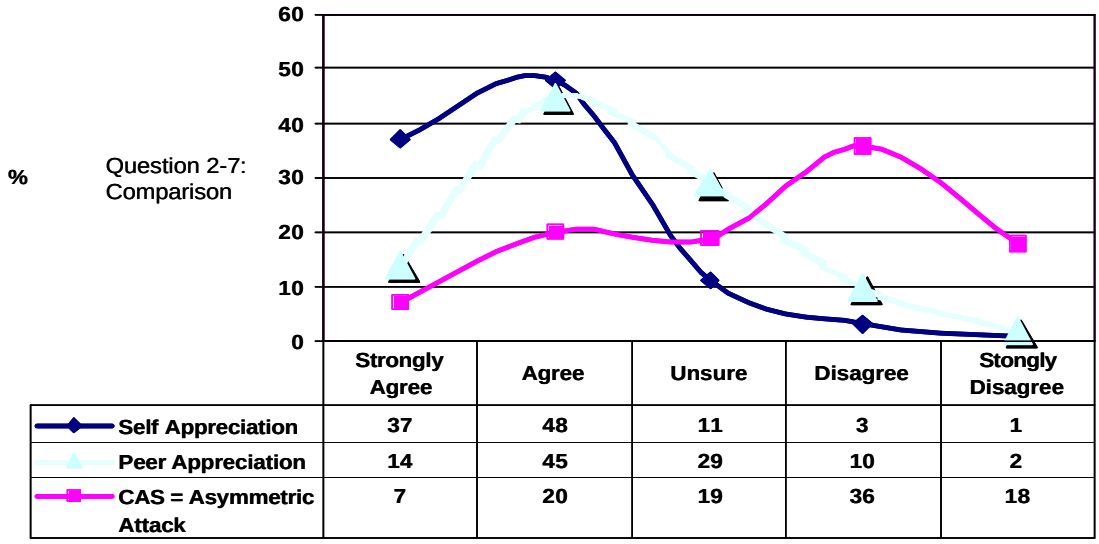


Figure 13. Graph Comparing Results From Survey Questions 1, 2, and 7

The final question adds to the measure of self-appreciation and supports prior conclusions and appreciation level. It also creates a twist to the interpretation of the data previously analyzed. There is no incorrect answer to this question. All of the available responses were derived from doctrinal sources across the services. In effect, all 257 personnel are correct. An interesting conclusion again supports the definition offered in the last section; 34 percent believe asymmetry is simply imbalanced or not equal. The conclusion in support of the primary research question rests in the asymmetry of the responses in question one and two, and question seven--doctrinal truth. The end product of this data also calls into question the responses from the seven previous answers and of question eight. That is to say, when personnel were answering questions about doctrinal use, were they sure asymmetry is unconventional or striking weakness? It is beyond the fidelity of this study to answer this question of cause. The result in Figure 14 standalone:

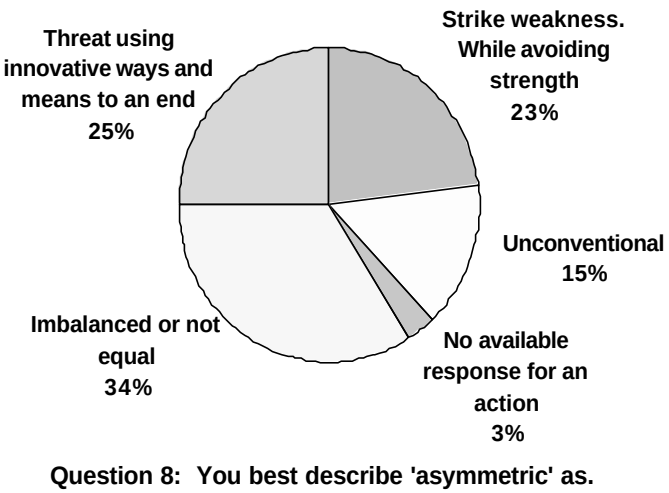


Figure 14. Graph Results From Survey Question 8

Question nine is intended to foster further study of asymmetry in application. The results are available for review in Tables 9-11. Chapter 5 addresses some possible problems and questions the data reveals.

The final conclusion from the results of the survey is admittedly based on the measures defined by the study. The statistics are available for the reader to draw separate or different endings. The survey answers the primary question of this study: Do service members appreciate asymmetry? They do not. The justification for this assessment is based on the fact that an appreciation level would fall on a scale from yes, they have appreciation to no--they do not. Regardless of the doctrine, the contrasting evidence from the survey strongly weights the indefinite scale to no. Additional support for this conclusion is in the next section.

Appreciation and Doctrine

The analysis and findings preceding this section serve to strengthen the primary problem associated with US military doctrine and the concept of asymmetry. The

problem is ever expanding, while doctrine poorly describes asymmetry. First, doctrine assaults service members with too many definitions of asymmetry; and second, doctrine uses the term as an adjective versus the concept that it truly is. For instance, the phase "surprise attack" is accepted anywhere, except in the military and is akin to "aggressively attacking" an objective or target. The problem is evident from the survey results, which show wide variances in appreciation based on the measures used.

Accept that doctrine poorly defines asymmetry. Then compare this to the 45 percent of respondents that believe asymmetric is used in accordance with doctrine. This assumption and fact question whether personnel are using a flawed or poor doctrine in the first place. The result of this analysis concludes that at least 45 percent of personnel surveyed began with a poor description from doctrine. Therefore the resulting appreciation level is lower if doctrine was considered wholly accurate. This is not to say that doctrine caused the entire response or this finding, because the question also allows personnel to draw on education and experiences (experience is an important factor and addressed in the next section). Conversely, 29 percent do not believe asymmetry is used in accordance with doctrine. Is this anymore wrong than using the contradictory publications? The result is a lack of common knowledge which doctrine is intended to provide.

Perhaps service members have great appreciation for asymmetry and the doctrine is simply incorrect? Written responses from the survey do not support this, because they are as varied as the doctrine. This may appear positive, or on doctrine's side, until the factual variations in doctrine are remembered. There are seventy-eight (78) written comments out of 257 surveys colleted. Of these, eighteen support current doctrine;

twenty provide neither supportive nor negative comments (general and flippant remarks), while forty responses were openly hostile to the concept of asymmetry and clearly negative toward doctrine and or the concept (these categories are based on the researcher's judgment). The top five responses provide the reader with a representative appreciation for the fifty-eight (58) comments that were pro or against asymmetry and doctrine. Spelling and some minor grammar is adjusted in the following quotes:

Supportive Survey Comments

> None of the definitions seem to precisely "fit" my conception. I feel that asymmetry is essentially a qualitative principle, but also has mathematical aspects. In my mind asymmetry is characterized predominately by an inability of the defender (against the proposed asymmetric attack) to respond "in kind" OR to employ a countermeasure/defense that negates the advantage provided by the asymmetry. (Sailor, O4)

> I believe we have spent much energy and resources on ensuring we have an asymmetrical advantage on the battlefield and have neglected to properly address those who use what I call negative asymmetry or a weaker enemy's success in striking our strengths. (Marine, O4)

> The use of asymmetry in our doctrine has been useful for describing enemy use weapons and tactics to strike our vulnerable areas; it is a means for our soldiers to understand and estimate such capabilities. (Soldier, O5)

> Asymmetry is a useful word--however the idea behind it is not new. It also covers a wide range of topics. Many talk of asymmetric warfare as if it's a new concept – it isn't. It includes terrorism, but asymmetric warfare is not terrorism. It does not have a narrow context. (Marine, O5)

> I can understand my enemy to consider: first, where I am vulnerable to an attack that negatively affects me much more in proportion to the effort or resources that the enemy expends; second, where the enemy is vulnerable to an attack that negatively affects him much more in proportion to the effort. (Airman, O4)

Negative Survey Comments

> Asymmetry has not been given a lot of attention from the education/training and planning perspective. It appears on the surface to be well-understood by all, yet not thoroughly explored as a tool/technique in warfare--for

> us or our adversary. Our particular doctrinal weakness is how to create effects through the employment of asymmetric events in "offensive" planning and "counter-XXX" planning. We're still stuck in a "mirror-imaging" and conventional force quagmire at all levels of war. (Airman, O4)
>
> The term asymmetry is nothing new and is overused in the context of the contemporary operational environment, which again is nothing new, but using the term can get you noticed in a room of inexperienced and less astute individuals. (Soldier, unknown)
>
> The term is much overused. Even the doctrinal definition--striking weakness while avoiding strengths--is increasing inane. Get CGSOC students past the notion that the US should be primarily concerned about addressing technical asymmetries. (Soldier, O4)
>
> Overused term; should be used sparingly at the strategic level; confuses the tactical construct. (Soldier, O4)
>
> Asymmetry is a term used without being understood. I was an [observer control] at the [Army's] National Training Center and we used to hear units talking about asymmetric tactical and support operations without really knowing what it meant. Hell, I don't even know what it means. I think what everybody thinks it means is non-linear and non-contiguous. Is that what it means? I still don't really know. (Solider, O4)

The last soldier's comment encapsulates countless calls for a better appreciation of asymmetry. This research, professional discussions in an academic environment, and the online survey produced an unexpected result: No less than fifteen electronic mails, and countless verbal requests requesting the results of the data. Service members are anxious to improve their appreciation of the concept of masymmetry. It is certain that doctrine has not provided it to this point.

Service and Rank Specific Findings

Notable variations in the data collected and the resulting statistics question aspects of rank and service affiliation in relation to the aggregate and evaluation results. This study offers the most significant deviations and postulates the reasons for them. The reader may continue the laborious task of reviewing the statistics in the tables provided.

The most interesting trend in relation to service occurred between the Navy, the Marines and the aggregate results. It is not what would be expected after reviewing their doctrine. Compared to 27 percent of the aggregate result, 50 percent of Marines do not think the term asymmetric is overused, while the same percent believe it is used properly (compared to 46 percent--aggregate). The lay conclusion would point to the Marines decent approach to asymmetry in doctrine, but it would be incorrect. Sixty percent of Marines do not rely on doctrine according to the statistics (compared to 45 percent--aggregate). Still more interesting is the response to the question about CAS and asymmetric attack. The aggregate result refuting this question is 54 percent, but the Marines were decidedly against CAS being an asymmetric attack: 70 percent. The organic nature of fix-winged aircraft and ground Marine units should clarify this change.

Responses from sailors would indicate that their level of appreciation for asymmetry is par with their service peers. Statistics show that Navy personnel are nearly as apt to use their doctrine as their service peers (24 versus 38 percent), but Naval Warfare Publications are void of asymmetry. The only other significant deviation is found in question 5: Asymmetric is used in line with doctrine, based on my education and experience. The majority of sailors (53 percent) do not feel that asymmetry is used IAW doctrine (compared to 29 percent--aggregate). The disparity cannot be clearly linked, but the fact that these sailors were attending an Army senior school which exposed them to joint and Army publications leads this researcher to believe that sailors drew on these publications and not their own (Navy publications).

The statistics prove that service member's rank plays an important role in their appreciation level. The trend is what would be expected; appreciation level improves as

rank increases. This is evident in almost all the measures used and because rank serves as a proxy for experience in this study, appreciation is markedly linked to experience. This becomes clear when responses of self-appreciation of leadership and asymmetry are viewed. The strongly agree trend from O3 to O6 on leadership: 58, 63, 79, and 100 percent. The same scale and rank on asymmetry: 25, 39, 42, and 67 percent. No graph is required to show the obvious.

A less clear, yet telling picture of rank and appreciation is found in the responses to the question and measure of peer-appreciation. A contrast between captains and colonels is great: Thirty-six (36) percent of captains strongly agree and agree that their peers appreciate the concept, while 67 percents of colonels do. An inverse is evident in the unsure response: Fifty-one (51) percent of captains and only 33 percent of colonels are unsure if their peers appreciate asymmetry. A similar statistical result is found when the respondents were asked if the term was overused in military jargon. Captains were mostly unsure, while colonels were decidedly clear in their response (67% think is it over used). This confidence level of peers and ability to judge is beyond the scope of this study, but adds validity to the link between greater rank and appreciation of asymmetry.

The most notable break from the conclusion above is the fact that 100 percent of the colonels believe that CAS is not an asymmetric attack! This is made more surprising by the fact that colonels were more likely than any other rank to use doctrinal references (22% more likely compared to the nearest data: O5s). When doctrinal-use is compared to the question asking personnel to “best describe asymmetric,” the results are twofold. The first, 67 percent of colonels choose, “threat using innovative ways and means to an end.” The answer is not incorrect, but significantly greater than the 24 percent aggregate

response percentage. Also revealing is the trend from captains to colonels on the same question: 18, 21, 47, and 67 percent. This conclusion is not: Greater ranks have more appreciation; therefore asymmetry is more similar to “threat using innovative ways and means.” A better summary of the analysis would indicate that greater rank shares a more common view of doctrine--correct or not. A common understanding is positive trend for the services, but incomplete in the aggregate.

The percent results of the survey are found in Tables 3 through 11. The author maintains the raw data for one year. In addition to these statistics and data, Tables 12 through 15 provide the results of the Kruskal-Wallis test. This test was not used in the analysis of the preceding results, but they are provided for future research. Preference, the size of the population, and a desire to simplify the conclusions did not warrant this analysis of variance test. In fairness to these results, some questions proved to have a modest discrepancy, while others were more accurate (see Tables 12 and 13).

CHAPTER 5

FINAL CONCLUSION AND RECOMMENDATIONS

> Asymmetric threats and activities are real, challenging, and dangerous. Asymmetric warfare represents a more significant challenge to the country than any threat that has heretofore surfaced in the country's history. (2003, 55)
>
> Dr. Wayne Michael Hall, *Stray Voltage*

This chapter provides a summary of the conclusions reached in chapter 4 and answers the primary and subordinate questions posed in chapter 1. It also outlines recommendations to solve a problem found in doctrine. The final section of this chapter and the study recommends topics for future research on the concept of asymmetry.

Final Conclusion and Recommendations

United States service members do not appreciate asymmetry in accordance with doctrine. This answers the primary research question: Do service members appreciate asymmetry? This conclusion only highlights the problem that doctrine poorly describes asymmetry. Chapter 4 provides a recommended definition (see also Appendix C), but the importance of the concept requires more from doctrine if Dr. Hall's vision of asymmetric warfare is correct.

There is correlation between current US doctrine and service member's appreciation level of asymmetry. The multitude of definitions provided by doctrine is also captured by the survey results. The result is a wide range, yet nearly even proportion of answers from personnel. Therefore, solving this problem becomes a function of standardizing the concept of asymmetry in military doctrine.

Chapter 1 showed that the problem sustains itself in two ways. First, service doctrine has broken from joint manuals. The reason for this can only be surmised, but is surely a result of diverging joint definitions. Second, the over use and plain use of the term to explain other terms is rampant (see Table 2); and there is a purposeful disregard of asymmetry as a concept. These notions are linked. Simply using asymmetric in doctrine leads to more confusion, because service members do not appreciate it. It is dangerous to call an attack asymmetric knowing that 19 percent of personnel will be unsure of your description, and 54 percent may disagree altogether. Doctrine must stop using the term as an adjective. This will translate into less use in jargon and more productive professional discourse.

Once asymmetric is no longer used as an adjective or word, it should be given its rightful place as a concept. The importance of the concept is not in dispute. Therefore, more than a stand-alone definition is needed in US military doctrine. Pages of text, diagrams and historical vignettes are owed to asymmetry in capstone doctrinal publications. A result will be greater appreciation and ultimately greater application of the asymmetric concept. The concept applied to all levels of war will also serve to increase appreciation in junior service members.

This study asks several subordinate questions that helped to answer the primary question. The answers to these questions are woven into the conclusion above, but can be addressed directly. One question posed earlier is not answered: Is there common appreciation in each branch and across the services? A good question, but beyond the ability of the data and the amount of time to complete this research could answer. It is

posed again in the next section of this chapter, and the data points from this research do provide start point for continued scientific analysis.

How is asymmetry defined by doctrine? Poorly is the answer. Poorly is defined by: overuse in text; too many definitions; definitions that often conflict with other doctrinal terms; and no definition at all. Table 1: Characteristics of Asymmetry proves that this task is difficult, but not impossible if the end-product is redefined. This supports the recommendation that a stand-alone definition be abandoned and that asymmetric be addressed over pages and not sentences. Another question: Is doctrine used to gain appreciation for asymmetry? The majority of personnel do not rely on doctrine and that is likely a smart choice. Conversely, those that do rely on doctrine are left with the proven appreciation level. Viewed aggregately, there remains little question to the primary conclusion above.

Is asymmetry forever embedded in US doctrine? The answer to this question is both quantitative and qualitative. The sheer prevalence of the term already found in manuals from 1996 to 2003, coupled with the snail like publishing timeline of military doctrine, concludes a very positive response. Asymmetry will be, and should be found in US military doctrine for at least the next twenty years. A merely qualitative answer achieves the same answer and is based on the unknowns that combating terrorism creates; or at least the unknowns that terrorists spawn. This conclusion has been safe for twenty-five years and will remain so for another twenty or more.

Recommendations for Future Research

This final section is devoted to topics or questions of asymmetry that are associated with, but beyond the scope of this study. It is this researcher's discretion to

limit the list to three, but more are unquestionably apparent. An effort is made to make it easy to scan:

Asymmetry in application? More specifically, how do service members apply their appreciation of asymmetry to military operations? This research would be a direct extension to this study and would likely require a survey to answer the question. Question nine from this research was added for this very reason and the results in Figure 15 are intriguing (see Appendix A and B). The addition of applicable measures and a methodology to translate them would serve to assist instruction of asymmetry in military schools. Tables 9, 10, and 11 highlight the data from 102 responses:

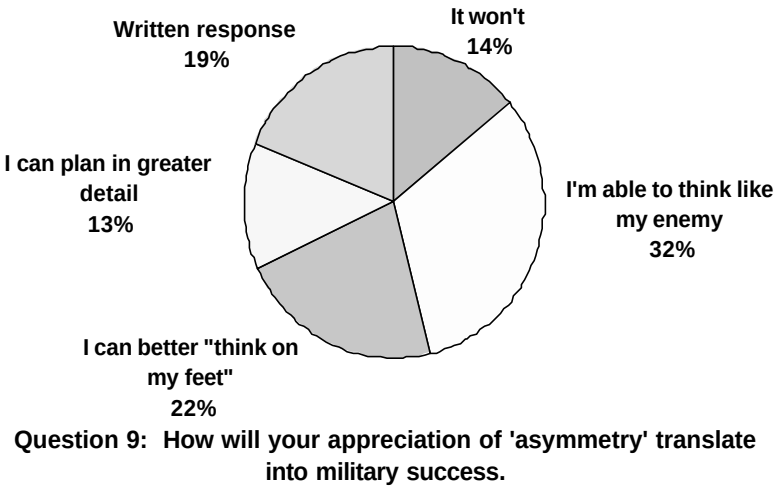


Figure 15. Graph Results From Survey Question 9

Asymmetry defined by other nations' militaries is another area of study that can further shed light on a definition, or serve to contrast US doctrine. The glossary in this

study provides the United Kingdoms' definition. A study may assume two major tracks: US allies or potential threats' definition of asymmetry. Both areas would support continued US and coalition military operations, because the line between ally and threat is becoming ever more blurred. The importance of culture in asymmetry would be an obvious subordinate question to the thesis.

Appreciation within each service and, or by rank is another topic. For example, do Navy lieutenant commanders appreciate asymmetry? This study could also include military specialties within a given service (i.e., logistician versus a pilot). The final section of chapter 4 outlined some branch and rank specific trends that can be expanded on. This course of study would allow greater fidelity in the doctrine and literature review and would narrow the population for survey. Recommendations from this research could focus on specific and particular adjustments in doctrine and PME at different levels. Another spin on this research could examine asymmetry across the battle space of a war zone: deep, near and rear. Is it similar, or fundamentally different?

Appreciation solely by rank is another option in this research. Chapter 4 recognizes the increased appreciation level by more senior personnel. The analysis links this to their experience level, but stops short at defining what experiences cause the jump in appreciation. Is it personnel or professional experiences, or some combination of them? Are there defining units or deployments that affect asymmetric appreciation? Can doctrine accelerate this experience level and asymmetry?

Another version of measuring rank and appreciation of asymmetry should focus specifically on the enlisted corps. This population is more likely than most to endure any affect of the concept of asymmetry. They too should be "able to appreciate complex

factors--that [has] the power to contribute to the success or failure of a force on force action” (survey comment).

TABLES

Table 2. 33 Asymmetric Occurrences		
Response	Methods	Approaches
Threat(s)	Attacks	Strategy
Weapons	Ways	Means
Offense	War / Warfare	Terrorists
Environment	Conditions	Enemy
Engagements	Concepts	Advantages
Forces	Relationships	Effects
Manner	Weapon System	Combat Power
Measures	Information Warfare	Symmetry
Operations	Force	Application
Leverage	Personnel Services	Activities

Table 3. Aggregate: Scale Responses

Question	Strongly Agree %	Agree %	Unsure %	Disagree %	Strongly Disagree %
I appreciate, or am fully aware of leadership as it applies to military applications	65	33	2	0	0
I appreciate, or am fully aware of asymmetry as it applies to military applications	37	48	11	3	1
My peers appreciate, or are fully aware of the term 'asymmetry'	14	45	29	10	2
The term 'asymmetric' is overused in military jargon and professional discussions	22	32	20	24	3
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	5	41	26	25	4
I rely on doctrinal references to expand my appreciation for 'asymmetry'	7	31	17	40	5
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	7	20	19	36	18

Table 4. By Service: Scale Responses

Question	Service	Strongly Agree %	Agree %	Unsure %	Disagree %	Strongly Disagree %
I appreciate, or am fully aware of leadership as it applies to military applications	Missing	67	33	0	0	0
	AF	56	44	0	0	0
	ARMY	65	33	1	0	0
	MARINES	90	0	10	0	0
	NAVY	76	19	5	0	0
	Aggregate	**65**	**33**	**2**	**0**	**0**
I appreciate, or am fully aware of asymmetry as it applies to military applications	Missing	33	67	0	0	0
	AF	52	43	2	3	0
	ARMY	30	50	15	4	1
	MARINES	40	50	10	0	0
	NAVY	43	48	10	0	0
	Aggregate	**37**	**48**	**11**	**3**	**1**
My peers appreciate, or are fully aware of the term 'asymmetry'	Missing	0	33	33	33	0
	AF	25	48	15	10	2
	ARMY	10	43	35	10	2
	MARINES	10	70	20	0	0
	NAVY	24	38	19	14	5
	Aggregate	**14**	**45**	**29**	**10**	**2**
The term 'asymmetric' is overused in military jargon and professional discussions	Missing	33	33	0	33	0
	AF	15	31	13	34	7
	ARMY	23	32	25	20	1
	MARINES	10	30	10	40	10
	NAVY	43	33	5	14	5
	Aggregate	**22**	**32**	**20**	**24**	**3**
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	Missing	0	33	33	33	0
	AF	10	44	18	26	2
	ARMY	3	40	29	23	4
	MARINES	0	50	40	0	10
	NAVY	5	33	10	43	10
	Aggregate	**5**	**41**	**26**	**25**	**4**
I rely on doctrinal references to expand my appreciation for 'asymmetry'	Missing	0	33	33	0	33
	AF	5	28	13	51	3
	ARMY	9	35	16	36	4
	MARINES	0	10	30	60	0
	NAVY	5	19	24	33	19
	Aggregate	**7**	**31**	**17**	**40**	**5**
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	Missing	33	33	0	33	0
	AF	13	23	13	41	10
	ARMY	5	17	23	33	22
	MARINES	0	20	10	50	20
	NAVY	5	33	14	33	14
	Aggregate	**7**	**20**	**19**	**36**	**18**

Table 5. By Rank: Scale Responses						
Question	**Rank**	**Strongly Agree %**	**Agree %**	**Unsure %**	**Disagree %**	**Strongly Disagree %**
I appreciate, or am fully aware of leadership as it applies to military applications	CPT	58	42	0	0	0
	MAJ	63	35	2	0	0
	LTC	79	21	0	0	0
	COL	100	0	0	0	0
	RET	55	36	9	0	0
	AGGREGATE	**65**	**34**	**2**	**0**	**0**
I appreciate, or am fully aware of asymmetry as it applies to military applications	CPT	25	47	21	6	2
	MAJ	39	49	8	3	1
	LTC	42	47	12	0	0
	COL	67	33	0	0	0
	RET	36	36	18	9	0
	AGGREGATE	**37**	**48**	**11**	**3**	**1**
My peers appreciate, or are fully aware of the term 'asymmetry'	CPT	6	30	51	11	2
	MAJ	17	49	21	10	2
	LTC	14	45	29	10	2
	COL	0	67	33	0	0
	RET	9	45	9	36	0
	AGGREGATE	**14**	**45**	**28**	**11**	**2**
The term 'asymmetric' is overused in military jargon and professional discussions	CPT	6	28	42	23	2
	MAJ	26	31	14	26	3
	LTC	23	40	16	19	2
	COL	67	0	0	33	0
	RET	9	45	9	27	9
	AGGREGATE	**22**	**32**	**19**	**24**	**3**
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	CPT	2	37	46	13	2
	MAJ	5	44	21	25	4
	LTC	2	35	19	37	7
	COL	33	33	0	33	0
	RET	0	36	36	18	9
	AGGREGATE	**4**	**41**	**26**	**25**	**4**
I rely on doctrinal references to expand my appreciation for 'asymmetry'	CPT	4	36	25	32	4
	MAJ	8	28	15	43	5
	LTC	7	37	14	37	5
	COL	33	33	0	33	0
	RET	9	36	18	27	9
	AGGREGATE	**7**	**31**	**17**	**39**	**5**
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	CPT	6	17	30	28	19
	MAJ	7	23	18	38	13
	LTC	7	12	14	37	30
	COL	0	0	0	0	100
	RET	0	27	27	27	18
	AGGREGATE	**7**	**20**	**20**	**35**	**18**

Table 6. Aggregate: "You best describe 'asymmetric' as"					
Question	**Striking weakness, while avoiding strengths**	**Unconventional**	**No available response for an action**	**Imbalanced or not equal**	**Threat using innovative ways and means to an end**
You best describe 'asymmetric' as	23%	15%	3%	34%	25%

Table 7. By Service: "You best describe 'asymmetric' as"						
Question	**Service**	**Striking weakness, while avoiding strengths %**	**Unconventional %**	**No available response for an action %**	**Imbalanced or not equal %**	**Threat using innovative ways and means to an end %**
You best describe 'asymmetric' as	Missing	0	0	0	33	67
	AF	27	5	0	42	26
	ARMY	24	18	3	31	24
	MARINES	10	40	0	20	30
	NAVY	19	10	10	48	14
	Aggregate	**23%**	**15%**	**3%**	**34%**	**24%**

Table 8. By Rank: "You best describe 'asymmetric' as"						
Question	**Service**	**Striking weakness, while avoiding strengths %**	**Unconventional %**	**No available response for an action %**	**Imbalanced or not equal %**	**Threat using innovative ways and means to an end %**
You best describe 'asymmetric' as	CPT	30	26	0	26	18
	MAJ	23	15	2	39	21
	LTC	16	7	5	26	47
	COL	0	0	33	0	67
	RET	27	0	9	55	9
	Aggregate	**23%**	**15%**	**3%**	**34%**	**24%**

Table 9. Aggregate: Translate into military success					
Question	**It won't**	**I'm able to think like my enemy**	**I can better "think on my feet"**	**I can plan in greater detail**	**Open Response**
How will your appreciation of 'asymmetry' translate into military success	14%	32%	22%	13%	19%

Table 10. By Service: Translate into military success						
Question	**Service**	**It won't %**	**I'm able to think like my enemy %**	**I can better "think on my feet" %**	**I can plan in greater detail %**	**Open Response %**
How will your appreciation of 'asymmetry' translate into military success	AF	13	25	0	13	50
	ARMY	14	32	24	13	16
	Aggregate	**14%**	**31%**	**22%**	**13%**	**20%**

Table 11. By Rank: Translate into military success						
Question	**Rank**	**It won't %**	**I'm able to think like my enemy %**	**I can better "think on my feet" %**	**I can plan in greater detail %**	**Open Response %**
How will your appreciation of 'asymmetry' translate into military success	CPT	4	43	23	17	13
	MAJ	25	21	25	8	21
	LTC	25	25	13	8	29
	COL	0	0	50	50	0
	RET	0	0	33	0	67
	Aggregate	**14%**	**31%**	**22%**	**13%**	**20%**

Table 12. By Rank: Kruskal Wallis Statistics									
	I appreciate, or am fully aware of leadership as it applies to military applications	I appreciate, or am fully aware of asymmetry as it applies to military applications	My peers appreciate, or are fully aware of the term 'asymmetry'	The term asymmetric is overused in military jargon and professional discussions	'Asymmetric' is used in accordance with doctrine, based on my education and experiences	I rely on doctrinal references to expand my appreciation for 'asymmetry'	Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	You best describe 'asymmetric' as	How will your appreciation of 'asymmetry' translate into military success
Chi-Square	6.701	9.721	11.247	7.484	4.375	2.363	11.997	13.029	.889
df	3	3	3	3	3	3	3	3	3
Asymp Sig.	.082	.021	.010	.058	.224	.501	.007	.005	.828

Table 13. By Service: Kruskal Wallis Statistics									
	I appreciate, or am fully aware of leadership as it applies to military applications	I appreciate, or am fully aware of asymmetry as it applies to military applications	My peers appreciate, or are fully aware of the term 'asymmetry'	The term asymmetric is overused in military jargon and professional discussions	'Asymmetric' is used in accordance with doctrine, based on my education and experiences	I rely on doctrinal references to expand my appreciation for 'asymmetry'	Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	You best describe 'asymmetric' as	How will your appreciation of 'asymmetry' translate into military success
Chi-Square	4.508	14.390	11.505	11.001	4.955	7.301	6.005	.546	6.018
df	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.212	.002	.009	.012	.175	.063	.111	.909	.111

Table 14. By Rank: Kruskal Wallis Test

Question	RANK	N	Mean Rank
I appreciate, or am fully aware of leadership as it applies to military applications	CPT	53	139.75
	MAJ	164	135.29
	LTC	43	113.10
	COL	3	86.00
	Total	263	
I appreciate, or am fully aware of asymmetry as it applies to military applications	CPT	53	157.09
	MAJ	164	127.04
	LTC	43	123.19
	COL	3	86.33
	Total	263	
My peers appreciate, or are fully aware of the term 'asymmetry'	CPT	53	160.27
	MAJ	164	122.57
	LTC	42	130.32
	COL	3	128.00
	Total	262	
The term 'asymmetric' is overused in military jargon and professional discussions	CPT	53	155.35
	MAJ	164	127.87
	LTC	43	121.57
	COL	3	94.67
	Total	263	
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	CPT	52	129.28
	MAJ	164	127.70
	LTC	43	151.06
	COL	3	97.17
	Total	262	
I rely on doctrinal references to expand my appreciation for 'asymmetry'	CPT	53	125.57
	MAJ	164	136.41
	LTC	43	126.07
	COL	3	89.50
	Total	263	
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	CPT	53	129.95
	MAJ	164	124.84
	LTC	43	154.34
	COL	3	239.50
	Total	263	
You best describe 'asymmetric' as	CPT	50	110.20
	MAJ	163	127.23
	LTC	43	159.63
	COL	3	186.00
	Total	259	
How will your appreciation of 'asymmetry' translate into military success	CPT	47	49.91
	MAJ	24	46.65
	LTC	24	48.27
	COL	2	64.50
	Total	97	

Table 15. By Service: Kruskal Wallis Test

Question	Service	N	Mean Rank
I appreciate, or am fully aware of leadership as it applies to military applications	AF	62	145.92
	ARMY	178	135.88
	MARINES	10	106.10
	NAVY	21	121.95
	Total	271	
I appreciate, or am fully aware of asymmetry as it applies to military applications	AF	62	108.57
	ARMY	178	147.52
	MARINES	10	127.20
	NAVY	21	123.55
	Total	271	
My peers appreciate, or are fully aware of the term 'asymmetry'	AF	61	111.48
	ARMY	178	145.98
	MARINES	10	110.65
	NAVY	21	128.26
	Total	270	
The term 'asymmetric' is overused in military jargon and professional discussions	AF	62	154.88
	ARMY	178	131.70
	MARINES	10	169.90
	NAVY	21	100.57
	Total	271	
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	AF	62	121.52
	ARMY	177	138.23
	MARINES	10	123.20
	NAVY	21	159.64
	Total	270	
I rely on doctrinal references to expand my appreciation for 'asymmetry'	AF	62	145.27
	ARMY	178	127.99
	MARINES	10	167.40
	NAVY	21	161.62
	Total	271	
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	AF	62	118.45
	ARMY	178	142.66
	MARINES	10	154.80
	NAVY	21	122.38
	Total	271	
You best describe 'asymmetric' as	AF	62	139.64
	ARMY	174	131.85
	MARINES	10	138.75
	NAVY	21	132.93
	Total	267	
How will your appreciation of 'asymmetry' translate into military success	AF	8	62.94
	ARMY	90	48.51
	MARINES	1	90.50
	NAVY	1	90.50
	Total	100	

GLOSSARY

Appreciate. 1. To recognize the quality, significance, or magnitude of; value. 2. To be fully aware of or sensitive to; realize (Berube 1982, 121).

Asymmetry. Dissimilarities in organization, equipment, doctrine and values between other armed forces (formally organized or not) and US forces. Engagements are symmetric if forces, technologies, and weapons are similar; they are asymmetric if forces, technologies, and weapons are different, or if a resort to terrorism and rejection of more conventional rules of engagement are the norm (FM 1-02--DRAG 2003, not in circulation--no page).

Asymmetric Attack (United Kingdom). Actions undertaken by state or non-state parties (friendly or adversary), to circumvent or negate an opponent's strength and capitalize on perceived weaknesses through the exploitation of dissimilar values, strategies, organisations and capabilities. Such actions are capable, by design or default, of achieving disproportionate effects, thereby gaining the instigator an advantage probably not attainable through conventional means (UK, JWP 0-01.1 2002, A-26).

Guerrilla Warfare. Military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces (JP1-02 2003, 227).

Surprise. The purpose of surprise is to strike the enemy at a time or place or in a manner for which it is unprepared (JP 3-07 1997, 667).

Unconventional Warfare. A broad spectrum of military and paramilitary operations, normally of long duration, predominately conducted by indigenous or surrogate forces who are organized, trained, equipped, supported and directed in varying degrees by an external source (JP 3-07 1997, 713).

APPENDIX A

PAPER SURVEY

Current and Future Military Operations

This survey will take approximately five minutes of your time.

Thank you for your time and effort!

The purpose of this research is to enhance service member's education for current and future military operations.

This survey is used to partially complete a thesis for a Masters in Military Science at Fort Leavenworth, Kansas.

Individual responses on this survey form are **anonymous**; comments on this form may be used in the research with your approval.

Aggregate results of this survey are used in statistical analysis to form broad conclusions and recommendations.

Return this form by:

- Emailing: MAJ Stephen Pomper
  stephen.pomper@us.army.mil
- Calling to arrange pick up:
  913-680-1021
- Returning to carrier.
- Drop-off at Bell Hall:
  Development and Assessment Division, Survey Drop Box Room: 132

Control Number
04-015
CGSC – DAD
Official: **RG**

Please complete the following:

I am a (an):

- O Airman
- O Soldier
- O Marine
- O Sailor

I am a:

- O Captain (O3)
- O Major or Lt Commander (O4)
- O Lieutenant Colonel (O5)
- O Colonel or Captain (O6)
- O Retired / Civilian with close military ties

~ Turn over to complete ~

Current and Future Military Operations

Respond to the following using this scale:	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
I appreciate, or am fully aware of leadership as it applies to military applications	O	O	O	O	O
I appreciate, or am fully aware of asymmetry as it applies to military applications	O	O	O	O	O
My peers appreciate, or are fully aware of the term 'asymmetry'	O	O	O	O	O
The term 'asymmetric' is overused in military jargon and professional discussions	O	O	O	O	O
'Asymmetric' is used in accordance with doctrine, based on my education and experiences	O	O	O	O	O
I rely on doctrinal references to expand my appreciation for 'asymmetry'	O	O	O	O	O
Fixed-wing close air support (CAS) should be considered an 'asymmetric attack'	O	O	O	O	O

You best describe 'asymmetric' as (*select one*):

- O Striking weakness, while avoiding strengths
- O Unconventional
- O No available response for an action
- O Imbalanced or not equal
- O Threat using innovative ways and means to an end

How will your appreciation of 'asymmetry' translate into military success (*select one*):

- O It won't
- O I'm able to think like my enemy
- O I can better "think on my feet"
- O I can plan in greater detail
- O _____

Please provide comments below on 'asymmetry' that are on your mind or not addressed.

If you do not want your anonymous comments published please select:

O *Do not use*

_____

_____

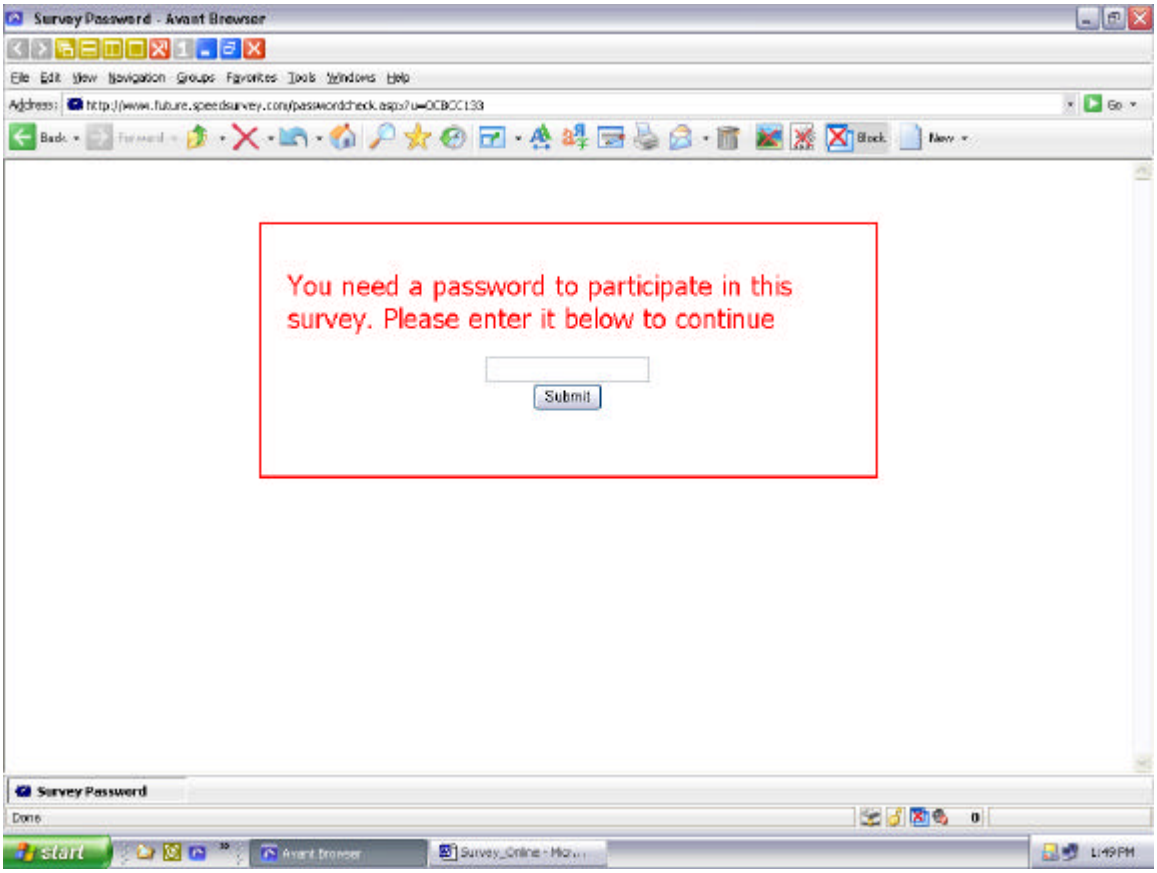
_____

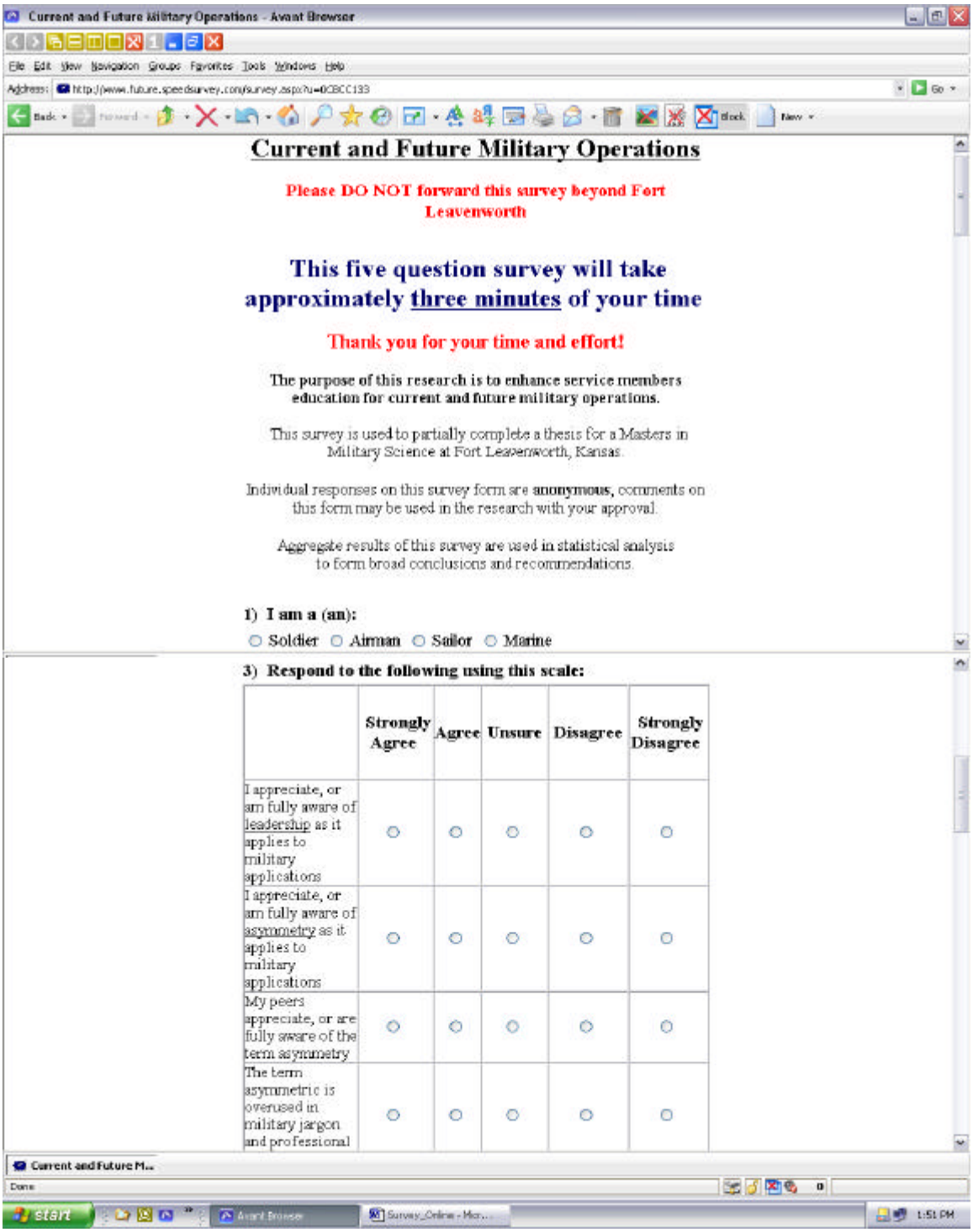
_____

~ Return information is on the reverse. Thank you again! ~

APPENDIX B

AUTOMATED SURVEY





Current and Future Military Operations

Please DO NOT forward this survey beyond Fort Leavenworth

This five question survey will take approximately three minutes of your time

Thank you for your time and effort!

The purpose of this research is to enhance service members education for current and future military operations.

This survey is used to partially complete a thesis for a Masters in Military Science at Fort Leavenworth, Kansas.

Individual responses on this survey form are anonymous, comments on this form may be used in the research with your approval.

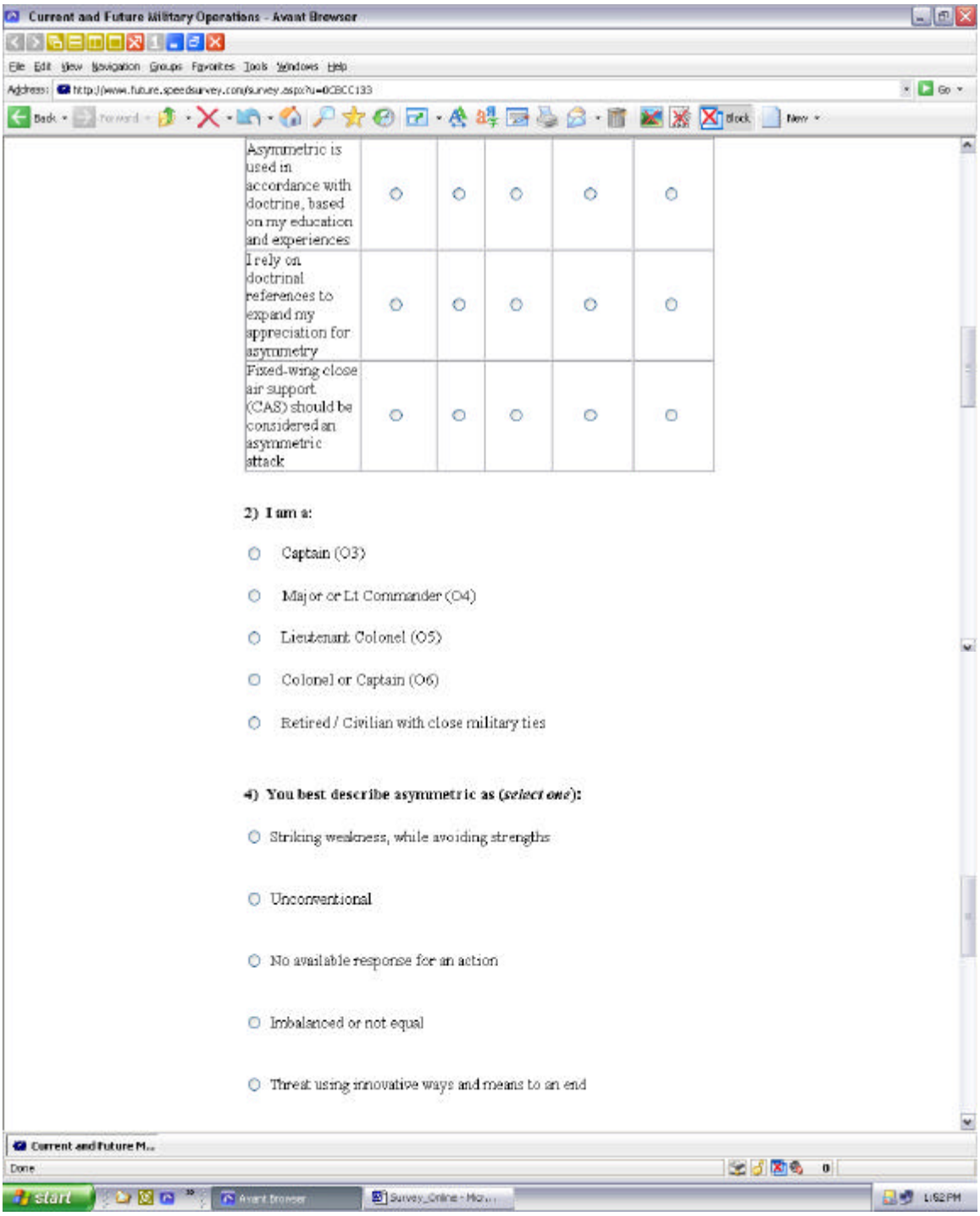
Aggregate results of this survey are used in statistical analysis to form broad conclusions and recommendations.

1) I am a (an):

○ Soldier ○ Airman ○ Sailor ○ Marine

3) Respond to the following using this scale:

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
I appreciate, or am fully aware of leadership as it applies to military applications	○	○	○	○	○
I appreciate, or am fully aware of asymmetry as it applies to military applications	○	○	○	○	○
My peers appreciate, or are fully aware of the term asymmetry	○	○	○	○	○
The term asymmetric is overused in military jargon and professional	○	○	○	○	○



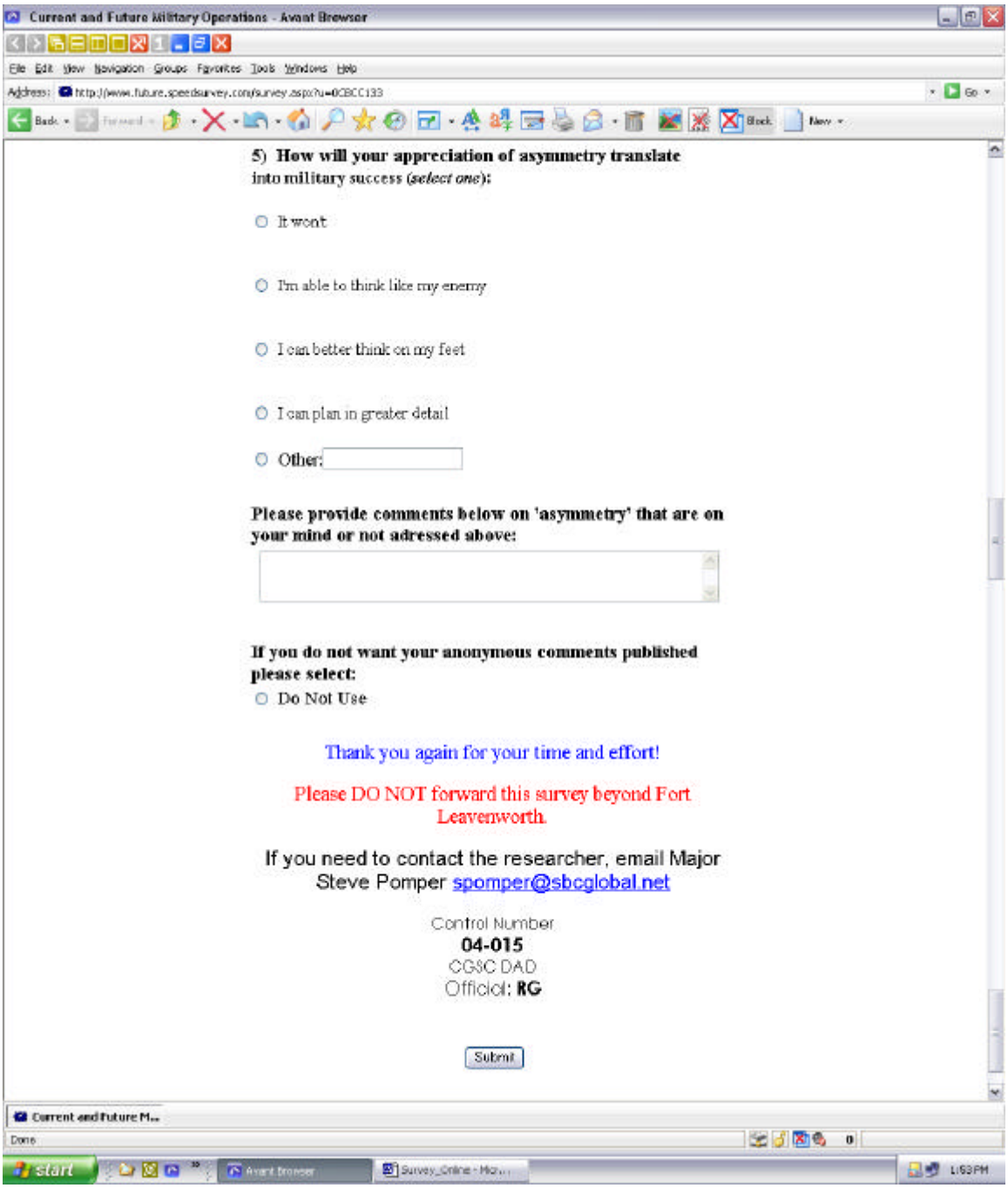
Asymmetric is used in accordance with doctrine, based on my education and experiences	○	○	○	○	○
I rely on doctrinal references to expand my appreciation for asymmetry	○	○	○	○	○
Fixed-wing close air support (CAS) should be considered an asymmetric attack	○	○	○	○	○

2) I am a:

- ○ Captain (O3)
- ○ Major or Lt Commander (O4)
- ○ Lieutenant Colonel (O5)
- ○ Colonel or Captain (O6)
- ○ Retired / Civilian with close military ties

4) You best describe asymmetric as (*select one*):

- ○ Striking weakness, while avoiding strengths
- ○ Unconventional
- ○ No available response for an action
- ○ Imbalanced or not equal
- ○ Threat using innovative ways and means to an end



Current and Future Military Operations - Avant Browser

5) How will your appreciation of asymmetry translate into military success (*select one*):

- It won't
- I'm able to think like my enemy
- I can better think on my feet
- I can plan in greater detail
- Other:

Please provide comments below on 'asymmetry' that are on your mind or not adressed above:

If you do not want your anonymous comments published please select:

- Do Not Use

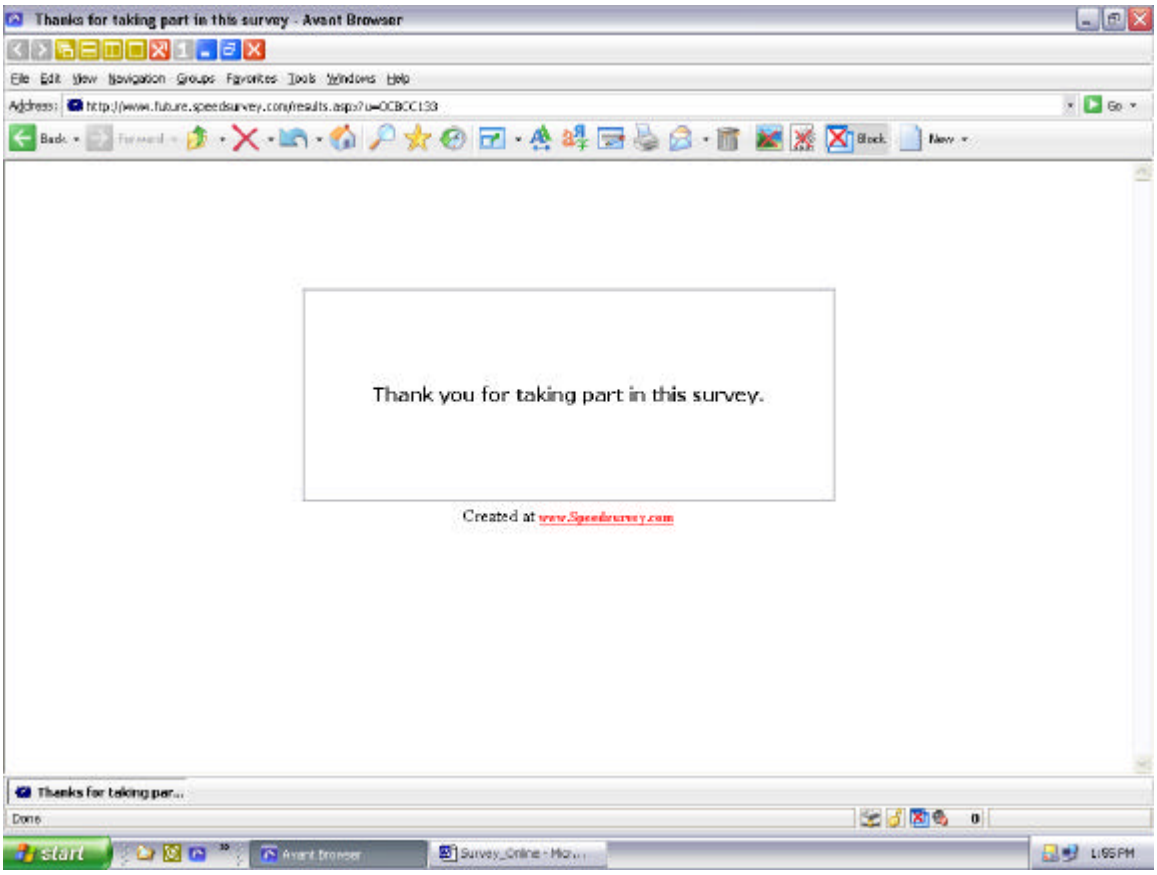
Thank you again for your time and effort!

Please DO NOT forward this survey beyond Fort Leavenworth.

If you need to contact the researcher, email Major Steve Pomper spomper@sbcglobal.net

Control Number
04-015
CGSC DAD
Official: **RG**

Submit


Thanks for taking part in this survey - Avant Browser
Thank you for taking part in this survey.
Created at www.Speedsurvey.com

APPENDIX C

MASYMMETRY

Asymmetry is imbalance or unequal and is not the same as masymmetry, because it can be quantified with certainty. For example, there is asymmetry between the M1A2 MBT and the M2A3 BFV by approximately 35 tons, which is surely an important fact if you intend to cross bridges.

Masymmetry is an age-old concept that simply recognizes that a relationship between conditions creates fleeting unknowns. It is synonymous with another timeless phrase that has become common jargon, “the fog of war,” but cannot be left to the maxim alone. Conditions are numerous and are not limited to: physical, psychological, numeric, environmental, perceived and actual objects that affect tactics, operations and strategy in conflict. The relationship is often spurious and involves many existing or created conditions. Recognizing these relations and conditions allows combatants to answer unknowns.

Once the relation of these conditions is known, existing or new doctrinal terms are used to better define the circumstance. Even so masymmetry remains, because it also recognizes constant, diverse, fast and slow change over time--or fleeting. What is definite now may be become masymmetric an instant later. Masymmetry is not solely a reactionary concept, but rather a continuum of conditions, relations and cognition. As such, it is difficult and critical to appreciate.

Masymmetry may or may not create an environment of advantage for friendly or enemy forces and it is not simply attacking weakness, while avoiding strength: Although the concept is applicable in this case, because a series of conditions is created or used to force an unknown on your opponent. Therefore, using the term masymmetric to define the concept requires that service members explain the conditions and the relationship between them.

Masymmetry is not an adjective--it modifies nothing by itself. It is not enough to say that masymmetry always exists and be content. Knowing is critically important to successful military operations. Defining, creating or reversing this relation to conditions fuses the art and science of warfare. In essence, understanding the masymmetry concept in detail lifts ‘the fog of war.’

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