WHAT WERE WE THINKING?

AN ANALYSIS OF DEPARTMENT OF DEFENSE ADVANCED STUDIES GROUP THESES FROM OPERATION DESERT STORM TO OPERATION IRAQI FREEDOM I, 1992-2002

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By

ANDREW J. GEBARA

Dr. Sandra Hutchinson, Dissertation Supervisor

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

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presented by Andrew J. Gebara, a candidate for the degree of doctor of education, and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Sandy Hutchinson

Professor Barbara Martin

Professor Patricia Antrim

Professor David Kreiner

Dedication

Nikki, I think we made a great team studying together over the last few years, and I couldn't have done this without your encouragement and suggestions—thank you.

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ABSTRACT

The aftermath of the 2003 invasion of Iraq left little doubt that many military and civilian leaders downplayed or entirely missed the possibility of an Iraqi insurgency. Volumes have been or will be written about the major decisions made by senior civilian and military leaders at the time. Similarly, historians have attempted to record the attitudes of those junior Soldiers, Sailors, Airmen, Marines, and Coastguardsmen tasked with implementing the operations derived from those decisions. Absent from the research, however, is a concentrated analysis of countless operational-level decisions made by mid-level officers, or the motivations behind these decisions.

A mixed-methods study investigating the research produced by the 1,124 graduates of each of the armed services' elite Advanced Studies Group planning schools provides an avenue to answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" Through a qualitative assessment of graduates' theses and a quantitative review through collation along the Range of Military Operations instrument, the researcher gained important insights into what key mid-level military officers were thinking during the time between the 1991 liberation of Kuwait and the 2003 invasion of Iraq.

A review of the data shows little substantive difference between the graduates of the three schools: one third of the graduates wrote theses concerning conventional warfare and another one fifth wrote about routine military operations. With few exceptions, these officers, studying at three different locations in Kansas, Virginia, and Alabama, thought the same issues were compelling during the last decade of the twentieth century. It is notable that only 2.7% of graduates wrote their papers about the topics that have defined the military operating environment in the first decade of the twenty-first century: terrorism and counterinsurgency.

While the failure to anticipate the operating environment is disappointing, the goals of these schools are not to produce graduates that predict the future, but ones who can engage in double-loop learning and thus adapt quickly to changing circumstances. By discouraging or even restricting students from writing about topics in their primary field of expertise, Advanced Studies Group faculty can better exercise the intellectual flexibility of their students, to the long-term benefit of their graduates, the military, and the United States.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

"The most powerful tool any soldier carries is not his weapon but his mind."

—General David H. Petraeus, USA
Commander, U.S. Central Command

Background

On August 8th, 1990, an Air Force Reserve aircrew landed in Saudi Arabia and offloaded an Airlift Control Element from their C-141B cargo aircraft (Boyne, 2007). Within a few hours this team, trained to manage aircrews and air operations in forward operating locations on short notice, established the support needed to recover 48 F-15 Eagle air superiority fighters, who arrived soon thereafter. These airmen subsequently established combat air patrols at key locations over the skies of Saudi Arabia to protect the kingdom from Saddam Hussein's war machine, at the time the fourth largest in the world (Knights, 2005). Few involved could have possibly guessed that this r$elatively small-scale transport mission would be merely the first sortie in what has proven to be almost 20 years of continuous combat operations for the U.S. armed forces. Since then, not a day has gone by without the U.S. military undertaking some combat operation in some part of the

world, be it in Haiti, Somalia, Bosnia, Kosovo, Afghanistan, the Gulf of Aden, or Iraq.

The experiences of these last two decades have undeniably affected the outlook of today's senior military leaders. But how did it affect them? Did the practical and educational experiences these men and women received cause a significant shift in their thinking? Has the passage of 20 years given our military leaders better insight into how to defend our nation's security interests?

Often, it is derogatively suggested that generals prepare to fight the last war. In some cases, this is true; history is replete with examples of military leaders who were unable to grasp the changing course of their contemporary operating environment. This failure led directly to the British tragedy at the Somme (Dixon, 1991), the French army's failure against the Nazis in 1940 (Yingling, 2007), and the stubborn American reliance on conventional tactics in Viet Nam (R.M. Peters, 2009). In other cases, however, preparing for the last war was appropriate; the operating environment does not change at a uniform rate, but rather it is "dynamic with an infinite number of variables" (Mattis, 2008, p. 105). Military leaders often are obligated to guess what future operating environments will resemble, with incomplete or inaccurate

information to guide them, and little or no strategic guidance to assist them (Janser, 2007; Vizzard, 2004). The art of knowing when leaders must adapt strategy and tactics and when they must not is at the heart of Clausewitzian genius (Clausewitz, 1832; Rogers, 2002).

The immediate aftermath of the 2003 invasion of Iraq leaves little doubt that many military and civilian leaders downplayed or entirely missed the possibility of an Iraqi insurgency. Volumes have been and will be written about the major decisions made by senior civilian and military leaders at the time. Similarly, historians have attempted to record the attitudes of those junior Soldiers, Sailors, Airmen, and Marines tasked with implementing the operations derived from those decisions. Absent from the research, however, is a concentrated analysis of countless operational-level decisions made by mid-level officers.

While senior leaders unquestionably guide strategic goals and junior leaders undoubtedly execute tactical objectives, it is often left to mid-level planners to piece together strategic guidance into a coherent operational design. These mid-level officers have their own thoughts concerning what issues are compelling, what are merely important, and what are frivolous. Like those of their superiors, these opinions have been formed by a combination

of their experiences, studies, and critical reflection. Research concerning these leaders would greatly aid in gaining an understanding of what the military's mid-level leadership was thinking in the immediate pre-Operation IRAQI FREEDOM I planning period.

While a comprehensive study of mid-level leadership prior to the 2003 invasion of Iraq is impractical, research examining a subset of key officers who had an inordinate effect on pre-war planning and war execution is possible. A mixed-methods study investigating the research produced by the graduates of each of the armed services' elite planning schools may provide an avenue to understand what military issues key mid-level officers deemed important in the pre-2003 time period. In paving this avenue, this research may provide implications for further study of the key themes missed in the 2003 Iraq campaign pre-war planning sessions, and why it took years to shift the military's thinking away from preparing for future conventional combat towards more relevant themes for the contemporary operating environment: counterterrorism, counterinsurgency, and the like.

Conceptual Underpinnings for the Study

Conceptually, the researcher will conduct this study under an interpretivist/constructivist paradigm. The goal of the research is to gain an understanding of the issues

these officers sought to research during their graduate study. Williamson (2006) noted,

> 'Constructivism,' one of several interpretivist paradigms, is concerned with the ways in which people construct their worlds. Constructivist researchers investigate constructions or meanings about broad concepts such as cultural values, or more specific issues or ideas, such as the possible ingredients of the dynamic, creative public library of the future and how to create it. (¶ 6)

Creswell (2003) refined constructivist methodology when he noted interpretivist/constructivist researchers rely upon the "participants' views of the situation being studied" (p.8). Creswell further posited the value of background and experiences to the researcher's path to understanding.

The interpretivist/constructivist model grew out of Husserl's phenomenology and Dilthey's study of interpretive understanding (Mertens, 2005; Zahavi, 2003). While constructivist researchers often find qualitative data collection methods the most appropriate fit for their work (Mackenzie & Knipe, 2006), a mixed-methods approach relying primarily on qualitative and secondarily on quantitative methods best fits the ability of the researcher to develop a "pattern of meanings" through this dissertation (Creswell, 2003, p. 9).

Statement of the Problem

Not enough is known about what issues key mid-level American military officers perceived to be dominant in the pre-2003 timeframe. Numerous authors have contributed to a discussion of senior decision makers' beliefs and actions in the run-up to the invasion of Iraq, including articles claiming senior leaders were too passive in their dealings with their civilian superiors (Rice, 2008), too bellicose with the Iraqis (Meštrović, 2008), too dismissive of other opinions (Gibson, 2008), and woefully uninformed of post-conflict and insurgency theory (Aylwin-Foster, 2005). However, researchers have not yet investigated mid-level officers' thoughts on the subject, nor the effect educational institutions had on their intellectual journeys. In their eagerness to interview generals and admirals, historians and political analysts have ignored the wealth of knowledge that could be gained by consulting key majors and lieutenant colonels, and the result of this oversight leads to an incomplete investigation.

Unfortunately, researchers desiring to add to the body of knowledge in this area are confronted by several challenges, including study participant biases, passage of time, and difficulty of determining causation. The events of 2003-2010 have undoubtedly affected a great number of

officers' outlook towards future trends in military operations. It is likely that a purely quantitative study gauging officers' attitudes toward their 2002 priorities would be hopelessly biased by their knowledge of what happened in 2003-2010. Further complicating researchers' responsibilities is the understanding that officers' preferences are sometimes eclipsed by their duties. Officers who might have developed an appreciation of the need to study counterinsurgency during duty in Bosnia, for example, may have possibly been discouraged from doing so once posted to the Pentagon. Similarly, a qualitative study would likely prove too limiting for this topic; there are many more officers worth studying than could possibly be researched purely qualitatively. A mixed-methods study is necessary to begin to understand these officers' interests before follow-on studies can investigate their effect on military planning.

Purpose of the Study and Research Question

By gaining insights into issues deemed critical to key mid-level military leaders, researchers may learn valuable lessons affecting future operations, resulting in savings of both blood and treasure. While some would argue that results on the battlefield are adequate barometers with which to judge military leaders (R. Peters, 2007a), others

point out those results may not be fully understood until years after the fact (Cordesman, 2006). If this is the case, it is important to begin the journey of understanding as soon as possible. Results in the Middle East may be far from final, but an understanding of key mid-level military officers' pre-war opinions are within the grasp of current researchers.

This study seeks to answer one general research question:

1. What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?

Assumptions and Limitations

To attempt to understand what graduates were thinking during a given timeframe based upon an analysis of their graduate theses is admittedly an incomplete method. It is impractical, and probably impossible, to perfectly glean such insights. Surveys or interviews given to participants, while useful in some respects, reflect the bias of perfect hindsight (Fink, 2006). Graduate school theses, however, reflect a snapshot in time to a project the author believed was important enough to dedicate large amounts of scholarly effort to produce.

There are several caveats that should be explored when drawing conclusions of student opinion based on thesis

topic. First, if the researcher relies on theses to gain an understanding of what issues were significant to students, then the researcher assumes students were not pressured or coerced into writing on a specific topic. If students were directed to write on a given subject, then at best the study would produce an understanding of what the faculty members, not students, believed were important.

Additionally, this study does not address the effect of curriculum on student topic choice. It is certainly possible that the graduates researched in this study wrote their papers on certain topics because their school curriculum emphasized the same, or similar, themes. For purposes of this dissertation it is enough to acknowledge the possibility of such influence without considering its influence in the research. Follow-on studies will determine why these officers produced the theses they did from 1992-2002; for now the researcher is content to understand merely what they were thinking at the time.

Definition of Key Terms

Descriptions of the three schools involved in this research are found below. To better present the design and methodology of the research, see Chapter Three, "Categories Defined" for definitions of specific instrument categories.

Advanced Studies Group

An interesting but often overlooked facet of adult learning is the realm of professional military education (PME). To varying degrees, the armed forces of the United States develop leaders through a combination of formal education, critical reflection, and experience (Groms, 2009). Each of the four armed services, the U.S. Army, Air Force, Navy, and Marine Corps, runs a large number of training and education courses for their respective service. Each school is designed for a specific time in the span of service members' career development. Of these, the courses relevant to this research are known collectively by several names: Advanced Warfighting Schools, Advanced Intermediate Leadership Schools, Advanced Intermediate Developmental Education schools, or as they will be referred to in this study, Advanced Studies Group (ASG) schools. These graduate schools provide advanced education for a small number of handpicked mid-level officers. Students undergo rigorous academics and graduate with expectations of becoming the future campaign planners and designers of their respective services (Winton, 2005).

There are currently five U.S. ASGs: the School of Advanced Military Studies (SAMS), the School of Advanced Warfighting (SAW), the School of Advanced Air and Space

Studies (SAASS), the Maritime Advanced Warfighting School (MAWS), and the Joint Advanced Warfighting School (JAWS). Of these five institutions, three existed during the timeframe concerning this research. MAWS was founded in 1999 and consists of a shorter syllabus than the others; a graduate thesis is not a required part of the MAWS curriculum. The faculty and staff of JAWS commenced teaching in 2003. Therefore, these two schools will be disregarded in an analysis of the 1992-2002 time period.

The remaining three ASGs fall under no unifying organization, but all independently "go far beyond the standard of their day and provide more concentrated focus, more in-depth immersion, and more systematic rigour than is possible in standard educational establishments" (Winton, 2005, p. 7). In other words, ASG schools provide advanced second-year graduate study to high-potential, hand-picked, mid-level officers who are already graduates of intermediate-level PME (Sturgeon, 2005). In addition to the U.S. service and interservice, or joint, intermediate-level PME schools, numerous international schools have been accredited for Joint Professional Military Education (JPME) credit. For a comprehensive list of accredited international intermediate and senior level schools, see Appendix A.

Graduates of the ASG schools are selected for high-level responsibilities in their respective services at an inordinately high rate. Winton (2005), a faculty member with experience in founding two ASGs, stated,

> The graduates should be monitored for the remainder of their careers, not simply their first assignment: as they mature and grow in experience, they should become ever more valuable. They constitute a collective resource to the service or services, and this resource must be carefully managed. (pp. 23-24)

The majority of the Services seem to follow this admonition. Among the Army leadership, as of 2008 there were 55 sitting General Officers who have graduated from one of the two SAMS courses, including one four star and five three-star generals (Goble, 2008). Another 31 SAMS graduate generals have subsequently retired from active duty, including seven three-stars (C. Hamm, personal communication, May 26, 2009). These numbers equate to approximately 16% of the Army's 338 active duty General Officers.

The Marine Corps seems to treat their ASG graduates in a similar fashion. According to the Marine Corps' public web site, there were 96 Marine General Officers as of February 2010 ("General Officers and Senior Executives Biographies," 2010). Of these, there are two SAMS graduates, nine SAW graduates, and one reserve officer who

formerly served on the SAW faculty ("General Officers and Senior Executives Biographies"). Sitting three and four-star generals were past the target student age group when SAW's first class graduated in 1991, so their percentages can be overlooked. Of those General Officers young enough to have attended an ASG school, 19.1% of one-stars and 12.5% of all Marine Corps General Officers are ASG graduates. Considering SAW graduates a mere 16 Marine officers per year (and fewer than that its first few years) as compared to roughly 1,000 total Marine officers per year group, having one school common to nearly one in five young Marine General Officers is a phenomenal tribute to SAW and clearly explains the importance the Marine Corps places on SAW graduates.

By the end of 2008, the last year numbers were evaluated, 72% of SAASS graduates have been selected for early promotion at least once, and a remarkable 15% had been promoted early to three different ranks (Jones, 2009). By way of comparison, 1.9% of Air Force officers were promoted early to major before the service stopped the practice in 1998, 2.9% are typically promoted early to lieutenant colonel, and 3% to colonel ("Air Force Personnel Statistics," 2010).

Further, of 193 SAASS graduates who have met a colonel's promotion board, 98.4% were promoted (Jones, 2009). This compares very favorably to the Air Force in-promotion-zone average of 43.7% over the same time period. Finally, almost 25% of those officers senior enough to have met a General Officer promotion board have been selected, an astounding percentage when compared to the 2-3% promotion rate to General as a whole ("Air Force Personnel Statistics;" Chiabotti, 2008).

Perhaps unsurprisingly given the above, admission to an ASG school is very competitive. In 2008 SAW accepted 24 of 150 applicants (Mitchell, 2008). Chiabotti (2008) noted approximately 25% of eligible officers apply to SAASS, and a mere 20% of those applicants are accepted.

School of Advanced Military Studies

The oldest ASG is the School of Advanced Military Studies (SAMS). Founded in 1983, SAMS is one of several schools at the U.S. Army Command and General Staff College, located at Fort Leavenworth, Kansas (Goble, 2008). SAMS consists of two programs: the Advanced Military Studies Program (AMSP) and the Advanced Operational Arts Studies Fellowship (AOASF). Collectively, SAMS advertises its mission statement as follows:

> The School of Advanced Military Studies educates the future leaders of our Armed Forces, our Allies, and the Interagency at the graduate level to be agile and adaptive leaders who think critically at the strategic and operational levels to solve complex ambiguous problems. (United States Army Combined Arms Center, "School of Advanced Military Studies," May 28, 2009)

AMSP is open to majors and lieutenant colonels of all the services, including the Army Reserve and National Guard, who are graduates of intermediate-level PME; officers normally attend AMSP the year immediately following their intermediate studies. AMSP's curriculum is directed at the operational to strategic levels of war and includes lessons in doctrine, history, international relations, philosophy, and political science (Goble, 2008). Additionally, AMSP students complete several contemporary planning exercises throughout the course year. Students are required to read approximately 100 pages per night.

In contrast, AOASF is the capstone program of SAMS. While it is also focused at the operational and strategic levels of warfare, AOASF is a two-year senior service college-level program designed to train and educate officers for colonel-level command, as well as for operational planning assignments to combatant and service component commands (Benson, n.d.). For the first year of study, AOASF students follow a curriculum somewhat

analogous to that of AMSP. During the second year, fellows serve as faculty members of the Command and General Staff College and as seminar leaders in AMSP (Benson; Goble, 2008).

There is a robust writing program in both SAMS courses, culminating with a required research monograph. During the timeframe concerning this research, 1992-2002, AMSP and AOASF students were required to write two 40-page monographs, one for each of two semesters in the program (Benson, n.d.). Graduates of either AMSP or AOASF earn a Master's degree in Military Arts and Sciences (Goble, 2008).

School of Advanced Warfighting

SAW was founded in 1990 at Marine Corps Base Quantico in Quantico, Virginia, as part of the creation of Marine Corps University, the legacy of the visionary former Marine Corps Commandant General Alfred Gray (King, Casey, Meyer, Johnson, & Rudd, 2010; Wilhelm et al., 2006). SAW's website describes the school's mission:

> The School of Advanced Warfighting provides a follow-on, graduate-level professional military education for selected field grade officers who have completed the Marine Corps or sister service command and staff college course. The course develops complex problem solving and decision making skills that can be used to improve the warfighting capabilities of an organization at the operational level of war. ("Marine Corps

University: School of Advanced Warfighting," 2010)

The first SAW class graduated in 1991 (D. R. Gardner, memorandum, 15 December 2008). Like SAMS, the course is open to majors from each Service and select Allies (Owens, 2005). Additionally, applicants must have completed JPME Phase I and must not have failed selection to lieutenant colonel (King et al., 2010).

The smallest of the ASGs, the annual SAW student body comprises 16 Marines, with another eight students representing joint Service and Allied officers (Owens, 2005). The SAW curriculum emphasizes a historical case study model in which students learn to hone their critical thinking and decision making skills by studying key military campaigns throughout American history (J. A. Vohr, personal communication, 24 April 2009). In total, SAW graduates read approximately 20,000 pages, complete numerous operational planning exercises, and complete several papers, culminating in a 15-20 page 'Future War' research paper in which the graduates write about a topic they believe will be critical to the military in the next 15 years (King et al., 2010; Vohr, 2008). Graduates receive a Master's degree in Operational Studies from Marine Corps

University (King et al., 2010; Marine Corps University, 2010).

School of Advanced Air and Space Studies

SAASS was first proposed in 1988 by General Larry Welch, then Air Force Chief of Staff, who was motivated by a discussion he had with U.S. Representative Skelton of Missouri. During the conversation, Skelton reportedly asked the General "where and how the Air Force would produce the next generation of strategists" (Chiabotti, 2008, p. 74), motivating Welch to direct his staff to conduct an analysis of suitable strategist programs. This analysis eventually gave rise to the school now known as SAASS, located at Maxwell Air Force Base in Montgomery, Alabama.

Graduating its first students in 1992, the SAASS curriculum has many similarities with its cousin programs, SAMS and SAW. It is perhaps the most academic in character of ASG schools but does not put as much emphasis on practical planning exercises. The SAASS curriculum is open to majors of any of the U.S. or Allied armed forces who have already graduated from intermediate-level PME (Chiabotti, 2008). Typical SAASS classes include officers representing the Air Force, Air Force Reserve, Air National Guard, the Army, Navy, Marines, and three allied nations.

SAASS's mission is to "Produce strategists through advanced education in the art and science of air, space, and cyberspace power to defend the United States and protect its interests, (Gorman, 2009, p. 2). SAASS students study a variety of subjects, including airpower and military theory, economics, history, political science, and technology (Meilinger, 1997). In total, SAASS students read approximately 35,000 pages and complete a 75-80 page thesis (G. S. Gorman, personal communication, April 22, 2009). Graduates receive a Master's degree in Airpower Art and Science from Air University (Gorman).

Summary

Using a constructivist research paradigm, the researcher seeks to gain an understanding of the intellectual outlook of a group of handpicked mid-level military officers in the 1992-2002 timeframe, based on analysis of their choice of master's degree thesis topic while attending one of three elite military graduate schools. These officers had an inordinate effect on planning and implementing the 2003 invasion of Iraq, as many of them held key mid-level staff or command positions at the time. An understanding of what military topics they thought were important prior to 2003 promises to provide a

lens with which to analyze their views and lay the groundwork for further research.

This dissertation is divided into five distinct chapters. Following the introductory chapter, Chapter Two will provide a review of relevant literature concerning adult learning theory, curriculum development, cohort learning, and professional military education. Chapter Three will discuss the research design and methodology behind this mixed-methods dissertation, while Chapter Four is dedicated to an analysis of collected data. The dissertation concludes with Chapter Five, the section devoted to study findings, conclusions, and implications for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

"I will study and get ready, and perhaps my chance will come."

—Abraham Lincoln

Through a constructivist lens, this dissertation seeks to serve as an aid in understanding the research question: "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" This undertaking is challenged by the relatively few pieces of literature regarding Advanced Studies Group (ASG) schools. In a more generic sense, however, relevant texts and articles concerning higher education programs in both the military and civilian arenas do exist; these works were considered when developing this literature review. In this chapter, the available literature and its resulting syntheses have been divided into five overarching categories, briefly described below.

The first category concerns adult learning theory, particularly andragogy, and associated theories relating to the importance of experience, formal education, and reflection in leadership development. The second overarching category concentrates on cohort learning communities, the chosen learning format of all three ASG

schools involved in this study. This literature addresses the definition of cohorts, advantages and limitations to cohort programs, and recommendations for both cohort students and faculty. The third category selected for this literature review emphasizes professional military education programs, the realm of ASG schools. The fourth overarching literature category is a synopsis of articles specifically related to ASG schools. In this segment, a discussion of the steps necessary for creation and sustainment of ASGs is offered, as well as a basic justification for the schools themselves. Finally, an assessment of the literature concerning graduate student thesis choice, including background concerning ASG theses, monographs, and research papers, is provided.

Adult Learning

At their essence, ASG schools are operational and strategic leadership education programs designed to prepare mid-level officers for higher responsibilities. Because they are programs dedicated to improving leadership capabilities of adults, a pedagogical model is not appropriate. Therefore, one must apply adult learning theory to the schools. Cercone (2008) stated:

> Adult learners are different from traditional college students. Many adult learners have responsibilities (e.g. families and jobs) and situations (e.g. transportation, childcare, domestic violence and the need to earn an income) that can interfere with the learning process. Most adults enter educational programs voluntarily and manage their classes around work and family responsibilities. (p. 139)

Andragogy

No one adult learning theory completely explains how to holistically educate adults, but andragogy, the art and science of helping adults learn, represents noteworthy progress in differentiating between adult and childhood learning (Cercone, 2008).

Until the latter half of the 1960s, pedagogy, the most common learning theory, was administered to all students. After this period, andragogy, defined by Knowles, Holton, and Swanson (2005) as "any intentional and professionally guided activity that aims at a change in adult persons" (p. 60), gained acceptance as a valid alternative to pedagogy.

Although andragogy was a term originally created in the early nineteenth century, Knowles campaigned for scholars to make the distinction between andragogy and pedagogy for so long that his name and the field eventually became nearly synonymous (Smith, 2009). Due to Knowles' efforts, many researchers acknowledged,

> As adults mature, they become increasingly independent and responsible for their own actions. They are often motivated to learn by a sincere desire to solve immediate problems in their lives. Additionally, they have an increasing need to be self-directing. In many ways the pedagogical model does not account for such developmental changes on the part of adults, and thus produces tension, resentment, and resistance in individuals. (Hiemstra, n.d., ¶ 4)

Knowles' theories include five adult learning assumptions: (a) self-concept moves from dependency as a child to independency as an adult, (b) adult learners accumulate experiences that can be used as an increasing resource for learning, (c) adults' readiness to learn becomes increasingly associated with the developmental tasks of social roles, (d) learners' time and curricular perspectives change from postponed and subject-centered as a child to immediacy of application and problem-centered as an adult, and (e) as people mature the motivation to learn is internalized (Smith, 2009). Donaldson (2008) harnessed the characteristics of the motivated, independent, experience-rich, ready-to-learn, performance-centered students described by Smith in describing his Interpersonal-Cognitive-Intrapersonal, or I-C-I, leadership development model. In the I-C-I theory, interpersonal interaction must be augmented by both cognitive inputs and

intrapersonal reflection to fully develop educational leaders (Donaldson).

Experience

Key to Donaldson's (2008) I-C-I model is the concept of experience as the most important of the three facets of leadership education (Eraut, 2004). Lindeman, the most influential adult education researcher of the twentieth century, stated in 1926,

> The resource of highest value in adult education is the learner's experience. If education is life, then life is also education. Too much of learning consists of vicarious substitution of someone else's experience and knowledge. Psychology is teaching us, however, that we learn what we do, and that therefore all genuine education will keep doing and thinking together…. Experience is the adult learner's living textbook. (pp. 9-10)

Lindeman's perspective was reinforced by the Honeywell Studies, a six-year research program committed to perceiving the way leaders learn to manage. According to the studies, 50% of managers' learning came from experience, 30% from relationships, and 20% from training (Kreitner, 2006).

The Center for Creative Leadership also recognized experience as the greatest portion of leadership education learning. According to the Center's researchers, 38% of learning comes from tough job assignments, 21% from

learning from others, 19% from knowledge gained through hardships, and of the remaining 22% of various reasons, only 9% of learning occurs through coursework (Ledlow, 2007).

Cognitive Education

While the literature clearly suggests experience should be a key part of leadership education programs, by itself experience is inadequate to prepare senior leaders for the challenges they will face. Boyatzis, Cowen, and Kolb (1995) noted, "experience does not necessarily equal learning…. People will not always make the best use of opportunities for development unless they are part of an intentional plan for development" (p. 76). This intentional plan should include the second part of leadership education: cognitive development. While formal coursework may not be as effective as personal experience, it provides a way to learn from the experiences of others. Further, a formal cognitive program allows students to appreciate leadership aspects beyond their perhaps narrow perspectives (Mezirow, 2000).

Andragogy instructs researchers that children are much less performance-centered than adult learners, who tend to relate to realism rather than theory. Knowles, et al. (2005) described this adult learning trend by observing,

> In contrast to children's and youths' subject-centered orientation to learning (at least in school), adults are life-centered (or task-centered or problem-centered) in their orientation to learning. Adults are motivated to learn to the extent that they perceive that learning will help them perform tasks or deal with problems that they confront in their life situations. Furthermore, they learn new knowledge, understandings, skills, values, and attitudes most effectively when they are presented in the context of application to real-life situations. (p. 67)

Most adults probably remember learning as an instructor-designed and led procedure (Tweedell, 2000); because this process has historically been the most common approach to education, most adults think of learning in this way (Cercone, 2008). However, none of the three ASGs under examination in this research subscribe to this traditional learning method. Instead, instruction at the ASGs consist primarily of seminar discussions moderated by means of the Modern Socratic Method, "a process of inductive questioning used to successfully lead a person to knowledge through small steps" (Maxwell, 2009, ¶ 6). The Modern Socratic Method is a good choice of delivery system for the ASG schools, allowing officers to engage in the facet of Donaldson's (2008) leadership education construct: self-reflection.

Reflection

Learning through experience and cognitive education is laudable, but people who fail to reflect on what they have studied and experienced will fall short in obtaining the full benefits of leadership education. Instead, leadership development must include opportunity for independent self-reflection (Ledlow, 2007). Mezirow (2000) affirmed the value of adult learners emphasizing contextual understanding, engaging in critical reflection, and validating meaning. Donaldson (2008) furthered Mezirow's design when he explained,

> In short, we learn from experience—but only if we REFLECT on our experience. Learning from experience is not inevitable. We know all too many educators who have had the same experiences hundreds of times and learned little from them…. Learning comes from experience only when accompanied by intentional, rigorous, fruitful reflection. (p. x)

Self-reflection is undemanding when adult learners consider positive experiences, but become less pleasant when adults are forced to learn from negative ones. Argyris and Schon (1996) observed the inclination of people, when feeling exposed or vulnerable, to put up defensive barriers to overlook bad news. This inclination, while in line with human nature, is a considerable barrier to double-loop learning, the ability to question whether operating norms

are appropriate, and make necessary adjustments to ensure learning is accomplished (Morgan, 2006).

Knowledge-creating organizations also need to be considered when discussing double-loop learning. A successful organization's sole business is continuous innovation (Nonaka, 1991; Nonaka & Takeuchi, 1995). Nonaka believed a company is "not a machine but a living organism" (p. 97) and that constructing new knowledge depends on leaders connecting the tacit knowledge of individuals and facilitating knowledge creation throughout the organization (Von Krogh, Ichijo, & Nonaka, 2000). Under Nonaka's theory, leaders are responsible for enabling businesses and other organizations to support learning.

Andragogy does not survive unscathed in literature. Despite the advantages of differentiating child- and adult-centered learning, Schapiro (2003) delineated some of what he saw as andragogy's weaknesses. Specifically, Schapiro believed andragogy often ignores power and social justice issues, the role of discourse and dialogue, and recognition of the possibility of multiple ways of learning. On balance, andragogy, while not perfect, appreciably improves the researcher's understanding of adult learning.

Given the above knowledge, the best leadership education courses should be administered by organizations

that facilitate double-loop learning, allow students to harness the lessons of their experiences, contain a robust formal education construct, and allow students time and avenues to engage in self-reflection.

Cohort Learning Communities

Due to the small number of officers enrolled in ASG schools, students typically begin and end their studies together, utilizing a group-learning model. Group learning programs have gained popularity largely due to being "relatively inexpensive and administratively manageable" (Nesbit, 2001, p. 8). Several recent articles and studies have discussed the value of these learning groups, commonly known as cohorts. Cohorts are groups of students who enroll and undergo the same curriculum at the same time (Chairs, McDonald, Shroyer, Urbanski, & Vertin, 2002). Harris (2002) noted cohorts typically consist of between 10 and 25 students studying together over a period ranging from 12 to 24 months, while Fahy (2002) defined a cohort as encompassing from 12 to 25 adult students. Miller (2002) explained the historical context of the term 'cohort,' noting the original term referenced a sub-section of a Roman legion and "a group or band united in some struggle" (p. 192).

Saltiel and Russo (2001) recommended cohort-based programs for students who meet some or all of the following seven criteria: they(a) are self-directed and mature; (b) enjoy working with others for the purposes of learning and mutual support; (c) are not attracted to traditional delivery classroom methods; (d) desire a clearly organized, sequential program; (e) are prepared to give up some choice; (f) take courses closed or unavailable to other students; and (g) are highly motivated to complete a program.

Augmenting Saltiel and Russo's (2001) advice to students, the role faculty members play in cohorts is crucial (Lawrence, 2002). Imel (2002) stated four recommendations for instructors hoping to foster learning in cohort communities. First, cohorts should spend time at the beginning to develop group trust and relationships. Second, a balance should exist between cohort and individual development. Third, the cohort environment must support and challenge the students. Fourth, cohorts must recognize and address tensions that may occur between learners and instructors.

Imel's (2002) first recommendation is wholly in line with Miller's (2002) argument that cohorts must possess both fundamental trust and empathetic understanding in each

other. Further, Imel's fourth recommendation for faculty is reinforced by Gilley, Levya-Gardner, Korth, Conbere, and Gilley (2005), who noted one of the best ways to create a positive learning environment within cohorts is to establish a rapport among students. This rapport must go beyond superficial interest to a more sincere relationship with learners. Once this relationship is founded students can be encouraged to engage in learning transfer.

Gilley, et al.'s (2005) focus on rapport building is echoed in Lawrence (2002), who acknowledged Miller's (2002) emphasis on trust. Lawrence noted most cohort students are willing to work collaboratively, but that learning communities develop only over time. Once these cohort communities have formed, "strong bonds develop" between students (p. 84). These strong bonds can lead to synergistic effects in which the knowledge created by the cohort is greater than the sum of each student's knowledge.

Harris (2002) qualified the advantages of cohort learning communities by differentiating between open-format and closed-format cohorts. Open-format cohorts allow for "rolling admissions and [allow] more student choice in sequencing classes and time to complete the degree," (Maher, 2001, p. 3) while in closed-format cohorts "students enter the program together and remain together

for all of their coursework in a lock-step sequence" (Maher, p.3). Harris stated closed-format cohorts, which include all ASG programs, are the ones most closely associated with group cohesion.

Cohort groups are a natural fit for adult learners (Imel, 2002), but individual behaviors within the cohort may limit group effectiveness (Donaldson & Scribner, 2003; Jaffee, 2007; Maher, 2001; Scribner & Donaldson, 2001). These behaviors include member personality characteristics, changes in membership, lack of commitment to the cohort, failure to meet group expectations, and independent learning styles (Maher). These researchers do not explain however, why these limiting behaviors would be more likely to occur in a cohort than in a non-cohort program. Indeed, such obstacles can be potentially mitigated by cohort team members. Long-term relationships develop among cohort students, resulting in cohort members adjusting to each other's personalities (Colin & Heaney, 2001). "Over time, students learn to take on different roles and experiment with different ways of being, using their peers as models. Quieter members tend to become more vocal, and more dominant members learn to listen" (Lawrence, 2002, p. 86). Scribner and Donaldson's warning aside, cohort models seem to provide programs that are "successful in affecting

leadership skills and abilities, and personal growth and improvement" (Chairs, et al., 2002, ¶ 26).

Adult education programs, and cohort-based programs specifically, are relatively new trends in education. Indeed, the first graduate program dedicated to adult education began at Columbia University only 62 years ago (Goble, 2008). While not free of challenges, cohort learning groups have rightfully gained in popularity; for small programs such as those found in the ASG schools, they fill an important education niche.

Professional Military Education Programs

December 7th, 1941, changed nearly every aspect of American life, and the military's schools of higher education were no exception. Some considerable steps towards inter-service, or joint, cooperation occurred during the Second World War, but Locher (2001) related "the Army and the Navy were not able to solve their differences during World War II" (p. 95). Because of the military's experiences in the need for cooperation during the war, broad consensus formed concerning the necessity to improve joint collaboration, and to standardize PME across the armed services (Efflandt & Reed, 2001; Yaeger, 2005).

Predictably, this consensus faded quickly after the war, and Congress lost patience with the inability of the

military services to foster joint education, eventually legislating JPME curricula to augment individual service PME. These reforms were modified several times over the decades following World War II, finally coming to fruition when the Goldwater-Nichols Department of Defense Reorganization Act (1986), one of the most sweeping pieces of legislation in the twentieth century, became law. Goldwater-Nichols, "fundamentally changed the way intermediate and senior colleges approach Joint Professional Military Education" (Steele & Kupiszewski, 1994, p. 63). Relevant JPME laws under Title X, U.S.C. are listed in Appendix B.

After the passage of Goldwater-Nichols, the Chairman of the Joint Chiefs of Staff disseminated a joint service strategy for JPME. The latest iteration of this strategy fosters leadership development of military officers who need to be able to perform well under the complex pressures of the twenty-first century security environment. Grooms (2009) clarified the purpose of PME when he noted, "PME--both Service and Joint--is the critical element in officer development and is the foundation of a joint learning continuum that ensures our Armed Forces are intrinsically learning organizations" (p. 1). This joint learning continuum consists of four elements: (a) training, (b)

experience, (c) education, and (d) self-improvement (Grooms; Ledlow, 2007). PME, therefore, serves as the education branch of the joint learning continuum, a construct remarkably similar to Donaldson's (2008) I-C-I model described previously.

Grooms (2009) described five general stages of PME: (a) Pre-commissioning, education received at institutions such as the Service Academies or the Reserve Officer Training Corps; (b) Primary, military-related education usually received comparatively early in an officer's career; (c) Intermediate, education typically received after 12-14 years of service that includes facets of extra-military security subjects; (d) Senior, education typically received after 17-20 years of service concentrating on the military as merely one element of national power; and (e) General/Flag Officer, education received upon promotion to General or Admiral.

The post-Goldwater-Nichols JPME system has been recognized as an immense success (Steele & Kupiszewski, 1994), but it is not readily apparent whether this is due to the quality of officers entering the programs or the programs' curriculum themselves (Peters, 2007). Piezon and Ferree (2008) conducted a study in which civilian students, while enrolled in an online course, were four times more

likely to participate in social loafing than their Naval War College peers. The generalizability of this study must be questioned; while it is appealing to think of America's officer corps as a hard-working group, more research in this arena is warranted before scholars can suggest officers are any more or less talented and hard-working than their civilian peers.

Other concerns have been voiced over JPME. Stavridis and Hagerott (2009) recently argued that current officer education programs stagnated soon after the end of the Cold War. Despite an apparent increase in complexity of the security environment, the U.S. Navy, for example, has adapted simply by adding layers to officers' education requirements. Stavridis and Hagerott argue the Navy has reached the current system's capacity, and a reevaluation of naval officers' education continuum "from midshipman to admiral" should be accomplished (p. 28).

The U.S. Navy's organizational culture has resisted formal education throughout American history (Edson, 2002). Edson further argued that naval leaders value the autonomy provided by isolation at sea and have historically posited the best place to learn is on board ship, not in a school room on land. In an interesting case study of the second and third order effects of legislation, Edson speculated

that existing naval PME was eclipsed by Goldwater-Nichols mandates. In an effort to remain in compliance with Goldwater-Nichols, U.S. Navy officials modified the naval operations and strategy courses at the Naval War College to emphasize a more joint curriculum, thus removing formal naval education from the program of study. According to Edson (2002),

> Continuing to stress tactical entry-level education, postgraduate master's programs, and if time permits national strategic and joint professional military education, the U.S. Navy has all but abandoned courses aimed at educating naval officers in the fundamentals of naval operational art and strategy. Line and staff officers who will fill operational and staff positions at the operational through strategic levels must be provided specific naval and joint education prior to assuming those planning and decision making billets. (p. 40)

Yingling (2009) articulated different concerns over the Army's PME. In a now famous article criticizing what he viewed as the inordinate level of conformity required to excel in the current system, Yingling stated, "It is unreasonable to expect an officer who spends 25 years conforming to institutional norms to emerge as an innovator in his late 40's" (p. 6). Yingling's answer to this lack of innovation is to send promising officers to civilian, not military, graduate education schools, a suggestion also made by Wilson (2003) and Petraeus (2007). Petraeus went on

to articulate six reasons for officers to attend civilian schools. First, attending a civilian graduate institution takes officers out of their "intellectual comfort zones" (¶ 3). Second, graduate school permits officers to discover an intellectual diversity they may not otherwise be exposed to in uniform. Third, civilian institutions provide specific skills on which an officer can draw in the future. Fourth and fifth, studying at a civilian institution helps officers refine their communication and critical thinking skills. Finally, civilian graduate schools teach officers a sense of intellectual modesty.

Peters (2007b) clearly disagreed with Petraeus (2007) when he cautioned against listening to what he thought of as overly intellectual commanders. According to Peters, a partial education gained through JPME was often worse than none at all. Peters warned that the only true qualifier of military acumen should be success on the battlefield. Of course, this position sounds compelling at first read, but Peters fails to explain his reasons for thinking experience alone is a sufficient teacher, or why some of America's most successful military leaders were those with little or no previous combat experience before their greatest successes, such as Petraeus or Eisenhower.

In the years immediately following Goldwater-Nichols, each of the services founded advanced intermediate PME graduate courses in an attempt to cultivate leadership development and innovative thinking among key mid-level officers. Those institutions, known collectively by several names but referred to in this study as the Advanced Studies Group schools, have each gained high reputations within the military services for being extremely successful at their stated missions, but have also proven contentious due to the high cost of maintaining the schools given the relatively low number of annual students, as well as the risk of creating an elitist subculture in what should be a egalitarian system. Since they operate largely unknown outside of military circles, only a few pieces of literature have been written concerning these schools; what there is has been reviewed below.

Advanced Studies Group Schools

Inherent in the ASG concept is the premise that the schools exist to educate a few officers to a much higher level than can be done within the constraints of a standard officer's career timeline. SAMS founder Wass de Czege argued the role of the SAMS was to provide "a broad, deep military education in the science and art of war" that must go "beyond that provided by the existing Command and

General Staff College course" (Benson, n.d., p. 3). SAW's original intent was to "afford a select group of officers the opportunity to immerse themselves in an intensive year of professional military education focused at the Operational Level of War thereby affecting a positive long term impact for the Marine Corps." (Donald R. Gardner, personal communication, 15 December 2008).

The level of instruction at these schools is much higher than the accredited graduate programs for most intermediate level officers (Winton, 2005).

> Through a very complex process, this level of war [operational art] must accumulate and interact with other forms of national power to produce multiple-order derivative effects at the highest level of war that ultimately alter the behaviors and destinies of governments and peoples. Tracing the physical effects in this process is very difficult. Tracing the psychological effects is inordinately complex. Furthermore, the conceptual linkages among the various levels of war must be made both from top to bottom and from bottom to top in the planning and in the execution of military operations. Making sense of all this is not rocket science; it is much more difficult than rocket science. (p. 10)

Winton (2005) viewed the complexity of contemporary military art and science as presenting a convincing justification for ASG schools. While acknowledging the expense of the schools, he argued existing JPME required augmentation. To justify the expense of ASG schools, Winton believed there must be (a) a clearly articulated aim; (b)

inspired, visionary leadership; (c) highly qualified, unified military-civilian faculty; (d) time for curriculum development; (e) talented, motivated students; and (f) focused, coherent, rigorous curriculum, including courses in theory, evidence and application, as well as a significant research component.

Winton (2005) concluded by describing the return on the ASG investment included (a) producing better officers, (b) providing a network of like-minded planners, (c) creating a cadre of mentors, and perhaps most importantly (d) enhanced warfighting and preparation for war. As a former SAMS faculty member and current SAASS professor, Winton specifically touted the reward of ASG graduates in the conduct of Operations DESERT STORM (Kuwait, 1991), ENDURING FREEDOM (Afghanistan, 2001), and IRAQI FREEDOM I (Iraq, 2003). Unmentioned by Winton, but certainly present, are ASG graduates' influence in military operations such as Operations JUST CAUSE (Panama, 1989), UPHOLD DEMOCRACY (Haiti, 1994), DELIBERATE FORCE (Bosnia, 1995), and ALLIED FORCE (Kosovo, 1999).

Not all ASGs are universally lauded. Donahoe (2005) was very critical of the Navy's ASG course. Although not a subject of this research, MAWS perceived deficiencies are worth noting:

> [Students] quickly discover they are taking a course that amounts to a rigorously directed elective. In contrast, the Army, Air Force, and Marines train majors to be planners by requiring them to attend Command and Staff College for a year, followed by an additional year of schooling in advanced military studies. With so little formal training, junior Navy planners are handicapped relative to their peers when serving in a joint planning environment. Yet, Navy leadership seems to think a lieutenant commander who took the operational elective at Newport is as qualified to be an operational campaign planner as a Marine major who completed the two years of Marine Command and Staff College and the School of Advanced Warfighting at Quantico, Virginia. An equivalent Army major would be one of the renowned School of Advanced Military Studies' "Jedi Knights" with a similar two years at Fort Leavenworth, Kansas, under his belt. (Donahoe, p. 51)

Choosing a Thesis Topic

A graduate student's choice of thesis topic is an important one, not to be taken lightly (Glatthorn & Joyner, 2005). Chandler (2006) listed five important aspects graduate students should consider when choosing their topic. First, students should ponder their topics' perceived relevance. Second, the number of faculty advisors able and willing to supervise their research should be taken into account. Third, students' personal interest in the topic will greatly affect their ability to see the project through to completion. Fourth, students' competence to employ the methods necessary to ensure a quality study must be realistically considered. Finally, the scale of the

project when compared to the time and resources available to students will likely bound students' ambitions.

Rockler-Gladen (2007) also provided a useful construct to aid graduate students trying to choose their thesis topic. In this conversation, she extended the list of students' criteria far beyond Chandler (2006) to list eight categories worthy of student consideration: (a) choose a topic you love, (b) pick something your advisor finds interesting and is knowledgeable about, (c) pick a topic that will be helpful in your career path, (d) find a topic that establishes your niche in your field, (e) choose research that is unique, (f) think carefully before you choose a controversial topic, (g) pick a topic that you already have some expertise about, and (h) pick a manageable topic.

Rockler-Gladen's (2007) sixth category, a warning against choosing controversial thesis topics, should be a disturbing one to researchers interested in academic freedom; nevertheless the advice is beneficial to some graduate students. There is an understandable but unfortunate human tendency to avoid controversy if students feel they will be treated negatively for researching topics opposed by the faculty. While there is no literature to suggest ASG schools' faculty stifle academic freedom in

this way, some higher education institutions have an unfortunate reputation for doing so (Bauerlein, 2004; Fisler & Foubert, 2006; Klein & Stern, 2009). Of course, it is appropriate to emphasize the vast majority of faculty advisors who serve their students admirably as guides and mentors, and many graduate students have very positive experiences of faculty interactions to recount (Mullen, 2007).

There is an ethical aspect to thesis choice on the part of the student as well. Madsen and Davis (2009) discussed the pressures scholars may face to put the sponsoring organization, in the case of this research the armed services, in "the best possible light" (p. 8). This pressure may extend all the way to avoiding topics that may potentially be counter to the values of the organization. There is absolutely no evidence that ASG schools exhibit faculty or institutional pressure upon their students, but it is a topic that must be taken into account when considering the topic of thesis choice.

Advanced Studies Group Theses, Monographs, and Research Papers

From its founding until the academic year 2001-2002, SAMS required two 40-page monographs, a requirement that was then shortened to a single paper (Lawhorn, personal

communication, May 26, 2009). While contentious within the faculty at the time, there is currently consensus among SAMS faculty that one monograph is an adequate middle ground to maintain academic rigor, while adapting the curriculum to other syllabus demands.

In contrast to the SAMS and MAWS faculty, the SAW faculty has customarily viewed the final research paper as "sufficient, but could be better. It's the weak spot in the syllabus." (Johnson, personal communication, April 24, 2009). While agreeing with the premise of the research paper as a facet of academic rigor, the faculty generally viewed other syllabus objectives as more important.

The SAASS faculty views the subject of the thesis from a clearly different perspective. Winton (2005) wrote,

> No Advanced Warfighting course is complete without a significant individual research component. This requirement should force the student to formulate a meaningful question; to pose meaningful answers; to find original-source evidence that bears on the issue; to evaluate that evidence critically; to determine which of the various explanations best answers the question; and to articulate a sustained argument in clear, concise, compelling prose…. The benefits of this process, engaged under the direction of competent research advisors, are immense…. All these skills are directly transferable to the practice of both operational art and strategy. (p. 21)

In support of this view, Chiabotti (2008), a former SAASS Commandant, noted,

> In fact, in the end-of-course surveys, it is the most despised event in the curriculum--though students appreciate it as the years pass. In fact, 5 years after graduation, the thesis is viewed as the most valuable and enduring exercise of the SAASS experience. (p. 75)

Winton's (2005) acknowledgement of the influence of ASG school graduates on operations is instructive and worth expanding. While operations in Afghanistan and Iraq are still ongoing, reasonable scholars might question just what these schools taught, given the results of the campaign plans. This study seeks to understand the mindset of ASG graduates from the post-DESERT STORM euphoria to the initial successes of IRAQI FREEDOM I. By better understanding what we were thinking at the time, the author hopes to better understand how to avoid potential strategic pitfalls in the future.

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CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

"Work relentlessly, accomplish much, remain in the background, and be more than you seem."

— General Alfred Graf Von Schlieffen

There is a considerable amount of literature dedicated to understanding the pre-2003 invasion of Iraq mindset among senior civilian and military leaders. A lesser but still significant amount of writing concerning the experiences of enlisted service members in this time period also exists. However, studies seeking an understanding of mid-level officers' attitudes toward topics relevant to military campaign planning in the 1992-2002 time period are non-existent.

To gain understanding of what issues key mid-level military officers perceived to be the most compelling in the 1992-2002 timeframe using a constructivist paradigm requires both a qualitative and quantitative approach. In this chapter, the researcher will describe the study design and methodology employed in this dissertation.

By qualitatively categorizing topics from participants' advanced studies group theses, and quantifiably ascertaining a representation of what topics

the participants selected, the research gave insight into the participants' mindset in the 1992-2002 time period.

Research Question

Through a constructivist lens, this dissertation sought to answer the following question:

1. What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?

Population

Between the academic years 1992 and 2002, a total of 1,209 students, 1,208 officers and one civilian, graduated from the three Advanced Studies Group (ASG) schools, the School of Advanced Military Studies, the School of Advanced Warfighting, and the School of Advanced Air and Space Studies. These 1,209 graduates represent a select group of individuals from 16 countries and six continents. A description of each ASG school's graduates is detailed below.

School of Advanced Military Studies

SAMS produced the majority of the study population, graduating 687, or 56.8%, of the total population. Of this group, 578, or 84.13%, were Army officers. The remaining graduates include 52 Air Force (7.57%), 28 Marine Corps (4.08%), 11 Navy (1.60%), and 18 international officers (2.62%), including participants from Australia, Canada,

France, Germany, Jordan, Norway, South Korea, Sweden, and the United Kingdom. Figures 1 and 2 below show demographics for SAMS graduates, sorted by Service or national background and year of graduation.

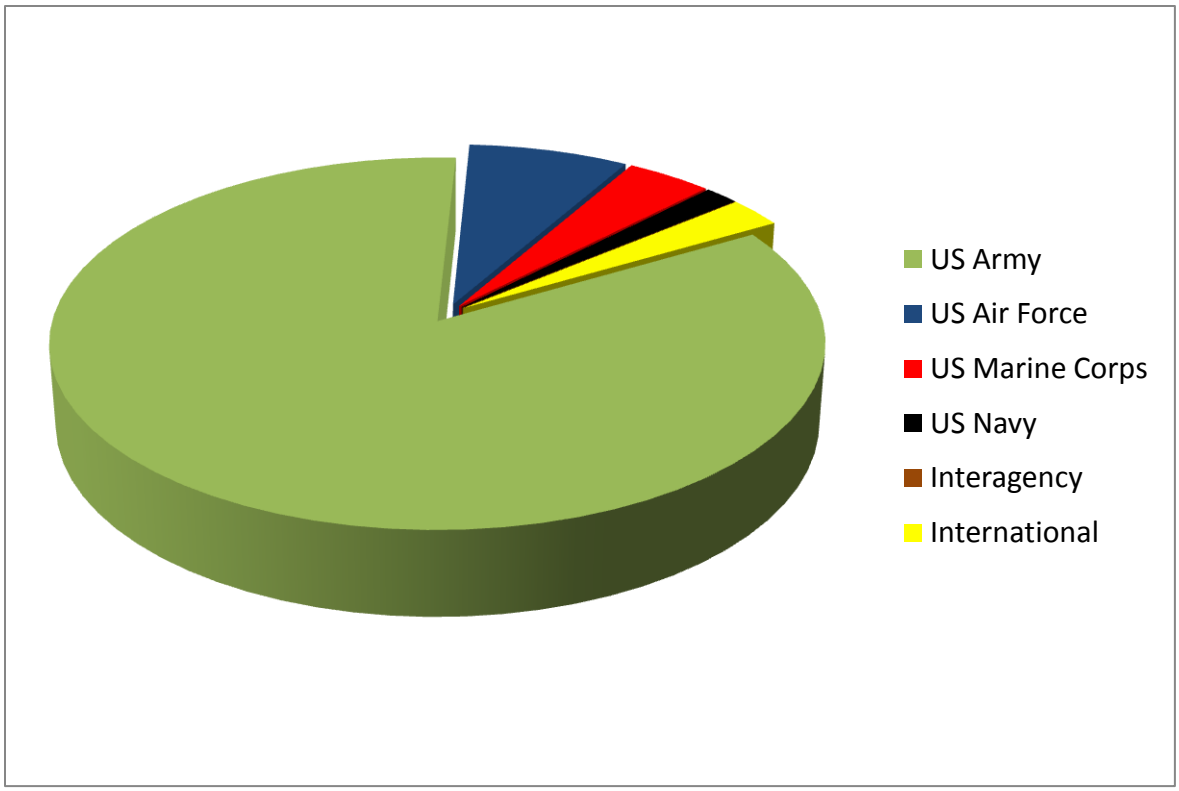

Figure 1. Number of SAMS Graduates by Service / Country

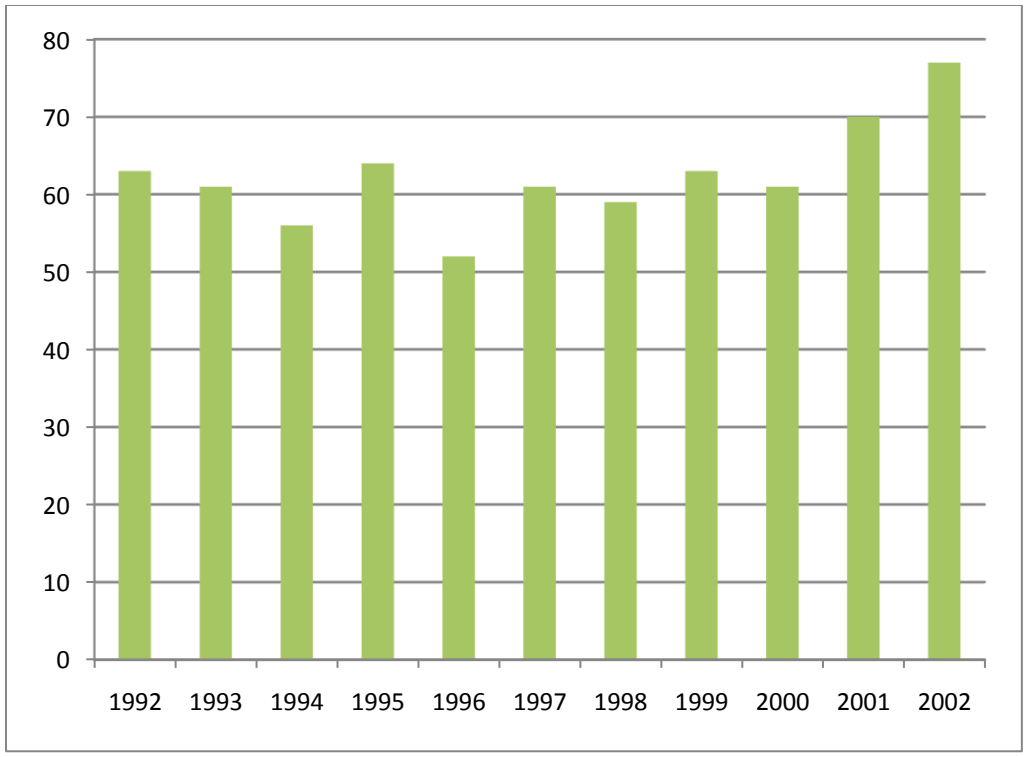

Figure 2. Number of SAMS Graduates by Year of Graduation

School of Advanced Warfighting

SAW produced the lowest number of graduates among the three ASG schools. This is not surprising, as the Marine Corps is also the smallest of the U.S. military services. Overall, SAW produced 233, or 19.3%, of the total study population. Of this group, 153, or 65.67%, were Marine officers. The remaining participants include 23 Army (9.87%), 20 Air Force (8.58%), 11 Navy (4.72%), one interagency graduate from the Defense Intelligence Agency, and 25 international officers (10.73%), to include participants from Australia, Canada, Chile, Israel, Lebanon, New Zealand, Norway, Romania, Senegal, and the

United Kingdom. SAW, therefore, bears the distinction of being the most international, interagency, and joint school of the three ASGs. Figures 3 and 4 below show SAW graduates' demographics sorted by Service or national background and year of graduation.

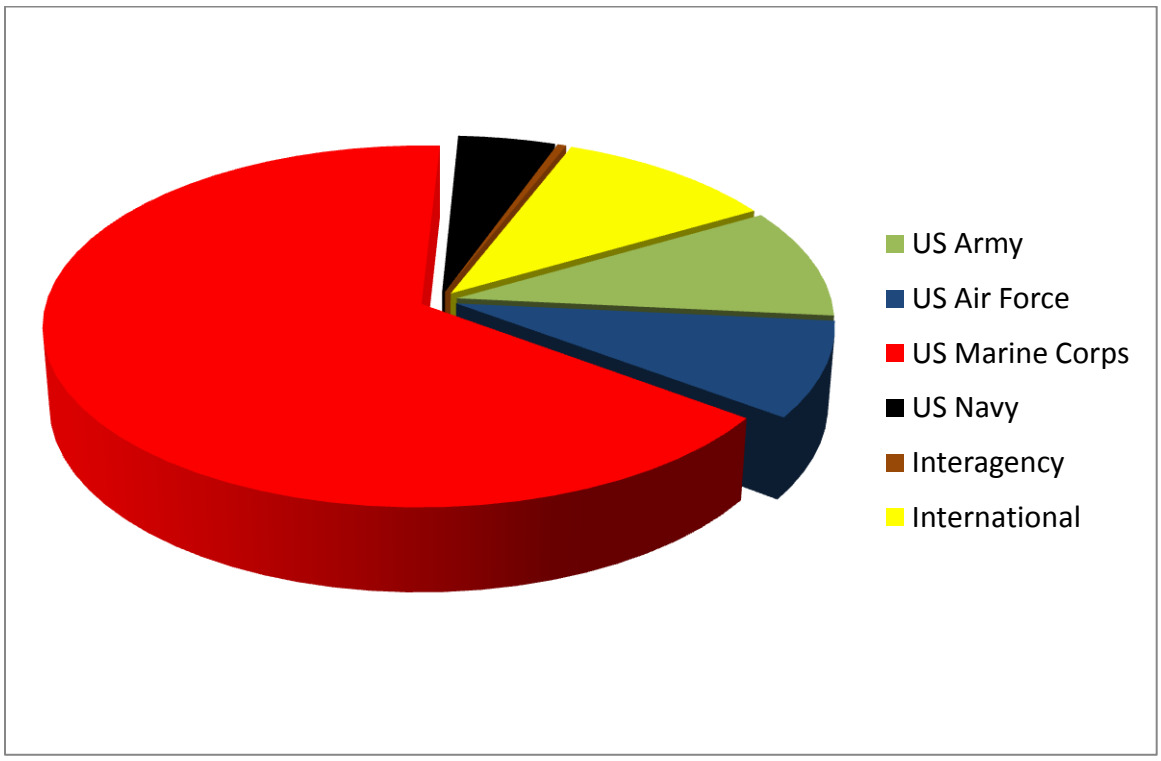

Figure 3. Number of SAW Graduates by Service / Country

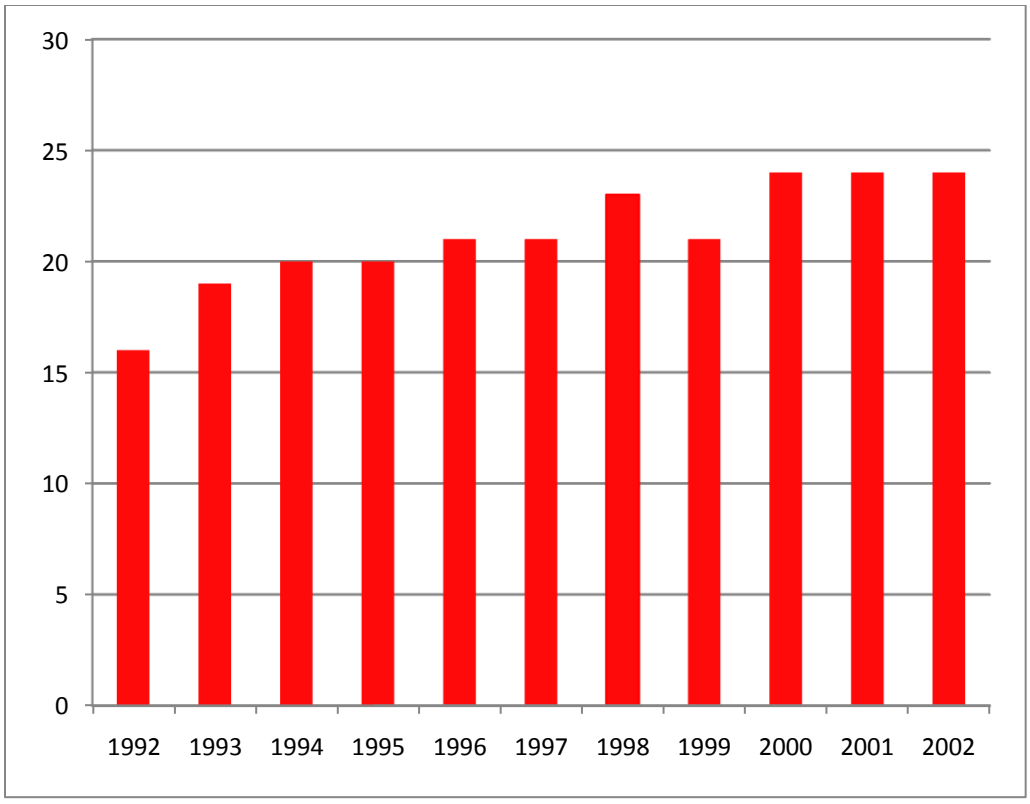

Figure 4. Number of SAW Graduates by Year of Graduation

School of Advanced Air and Space Studies

SAASS produced more students than SAW, but significantly fewer than SAMS. Overall, SAASS produced 289, or 23.9%, of the total study population. Of this group, 278, or 96.19%, were Air Force officers. The remaining participants include six Army (2.08%) and five Marine Corps (1.73%) officers. SAASS, therefore, was the least international, interagency, or joint of the three ASGs.

Figures 5 and 6 below show SAASS graduates' demographics sorted by Service background and year of graduation.

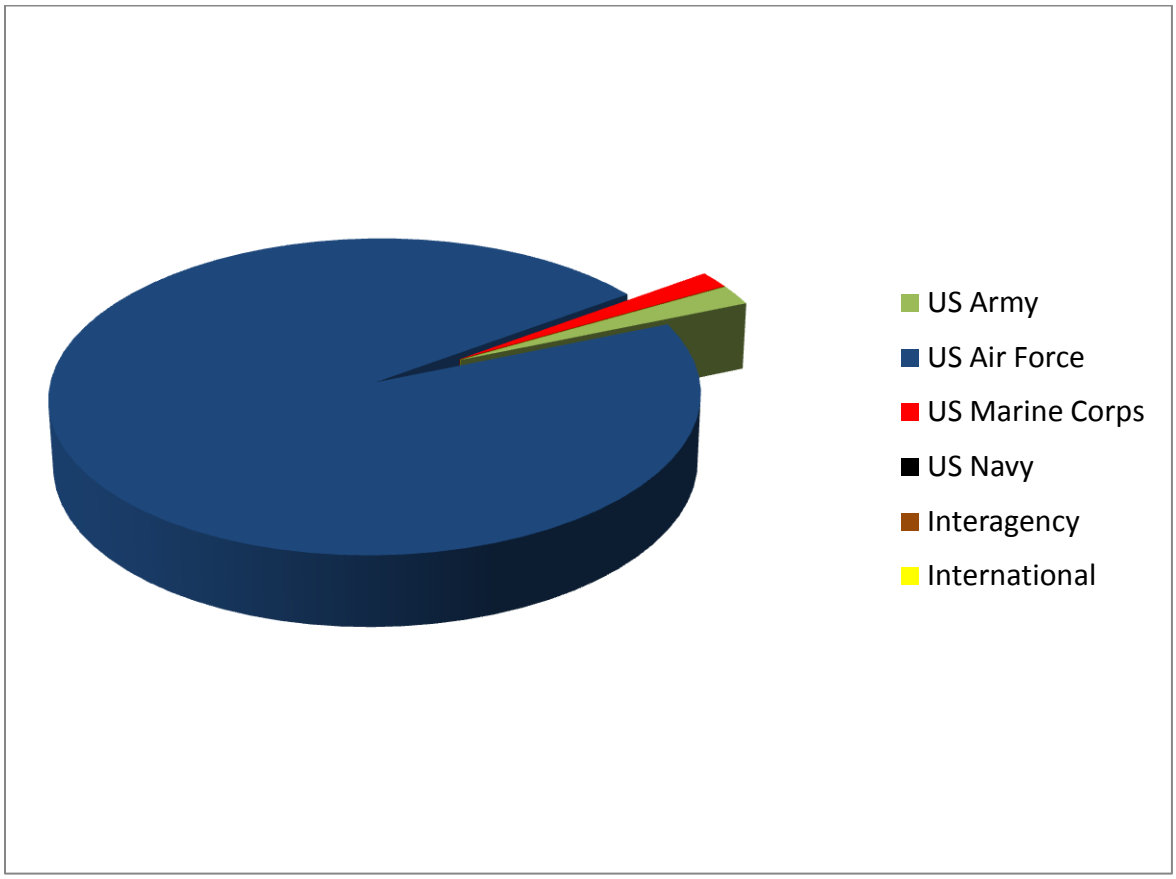

Figure 5. Number of SAASS Graduates by Service / Country

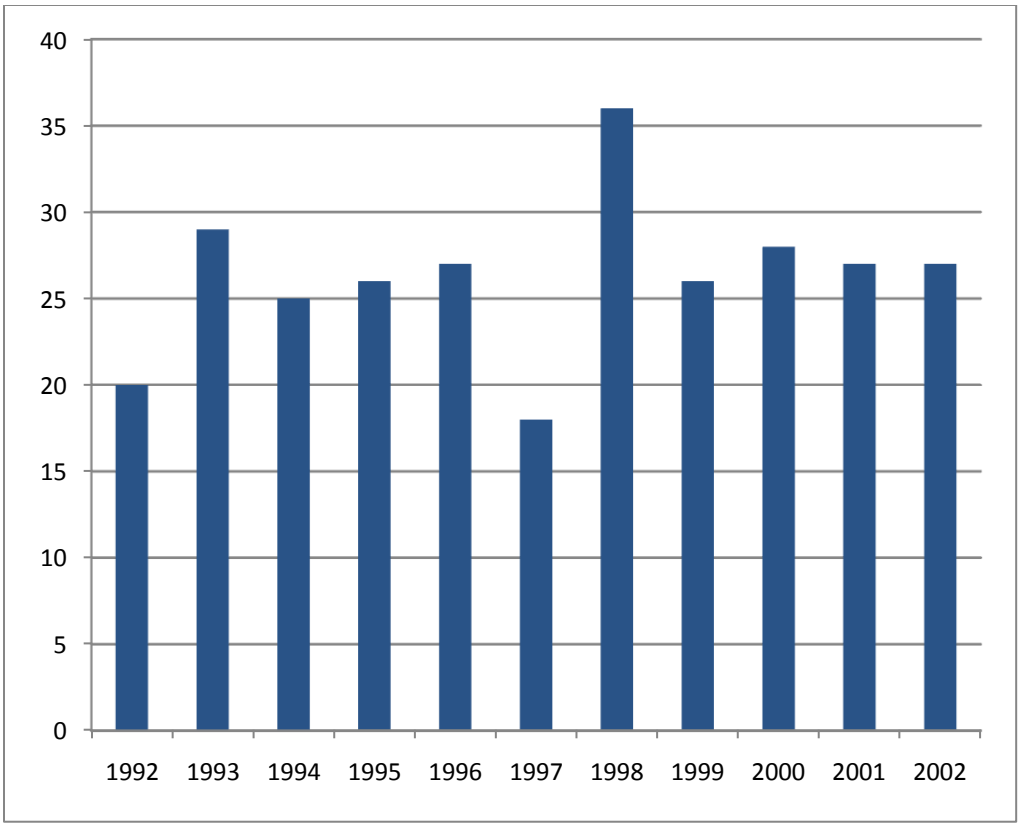

Figure 6. Number of SAASS Graduates by Year of Graduation

International / Interagency Graduates

Overall, 43 students from 15 countries other than the United States graduated from SAMS, SAW, or SAASS between the academic years 1992-2002, and one interagency partner, a member of the Defense Intelligence Agency (DIA), graduated from SAW. When combined, these 44 graduates comprised 3.6% of the study population. Unlike their American military classmates, there is no common military background among these graduates; they represent not only different Service backgrounds, but also countries spread across six continents. These countries included nations

closely allied to the United States, such as Israel or the United Kingdom, and ones only loosely connected to the United States, such as Senegal. Figure 7 and Table 1 show the overall international student representation by percentage of each country, as well as the total number of graduates by country. These figures are followed by Figures 8 and 9 which show population demographics of all three schools by Service affiliation and year of graduation.

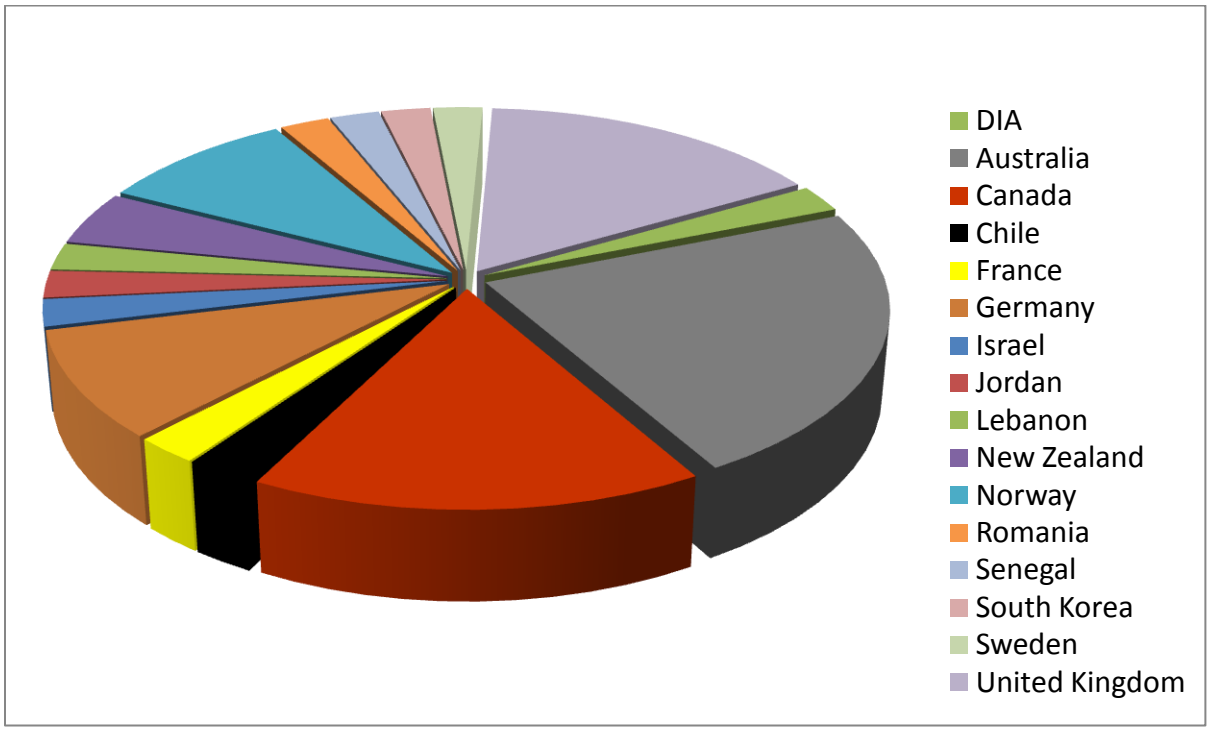

Figure 7. Number of International and Interagency ASG Graduates % by Country / Organization

Table 1

Total Number of International ASG Graduates by Country / Agency

International ASG Graduates Country of Origin	Number of Graduates
Defense Intelligence Agency	1
Australia	10
Canada	7
Chile	1
France	1
Germany	4
Israel	1
Jordan	1
Lebanon	1
New Zealand	2
Norway	4
Romania	1
Senegal	1
South Korea	1
Sweden	1
United Kingdom	7

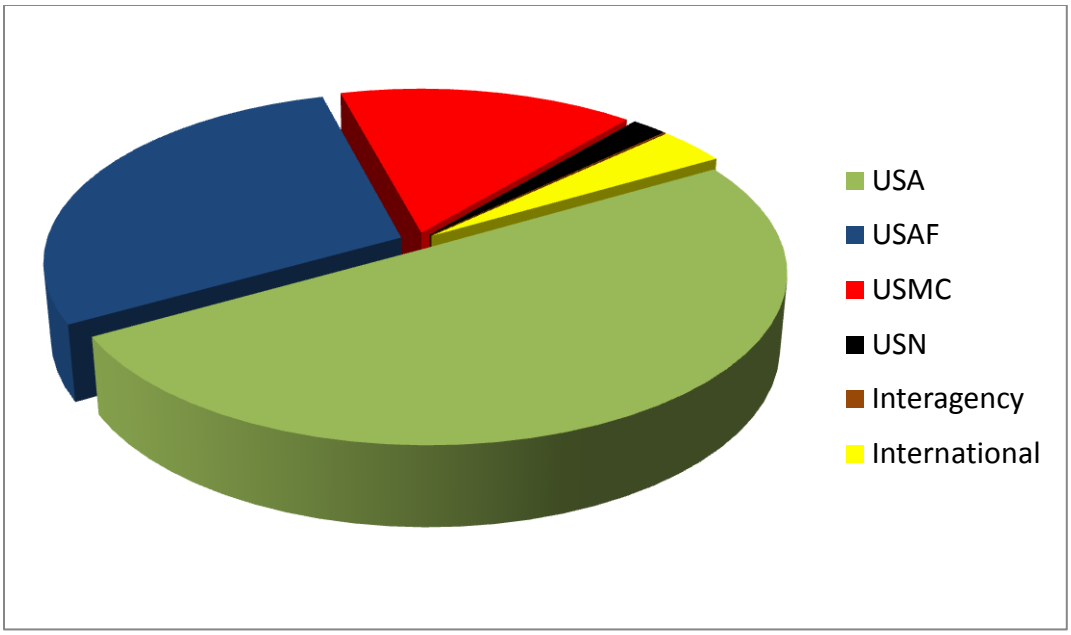

Figure 8. Number of ASG Graduates by Service / Country

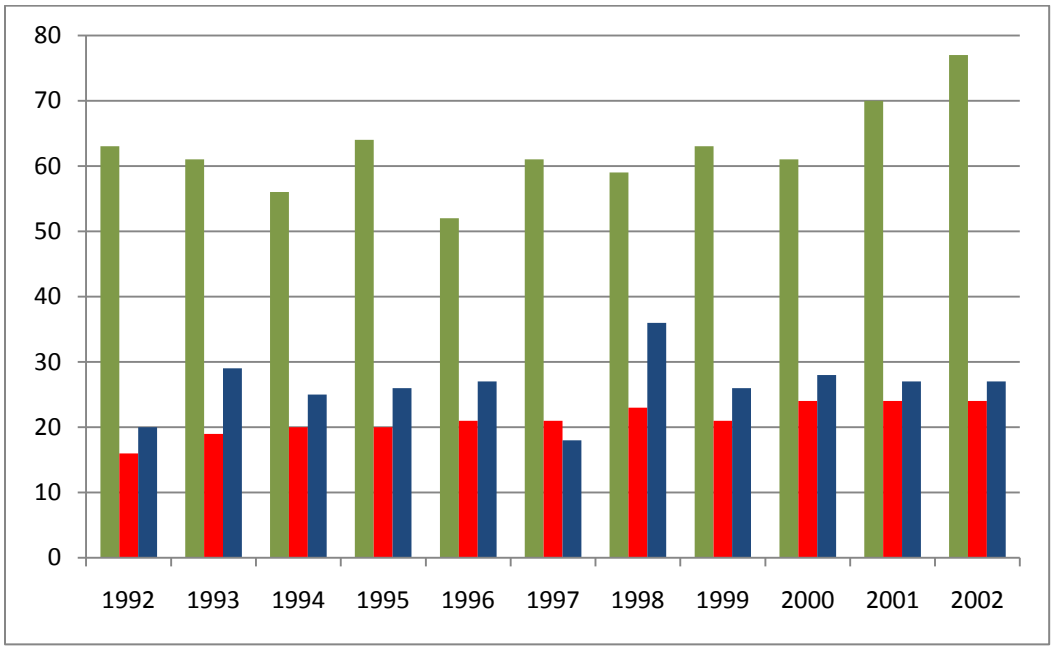

Figure 9. Number of ASG Graduates by Year of Graduation

Data Collection

To answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" the researcher collected and analyzed the final monographs, final research papers, and theses of 1,124 of the 1,209 ASG 1992-2002 graduates. The majority of these documents are freely available to the public over the internet.

SAMS monographs are retained at the Combined Arms Research Library (CARL), located in Fort Leavenworth, Kansas. These monographs are posted electronically at http://cgsc.cdmhost.com/cdm4/search.php. In a few cases, SAMS monographs were not posted to the internet for various reasons, such as paper classification or graduate preference. In these cases, a visit to the CARL archives allowed the researcher an in-person review of the monograph.

SAW final research papers are normally kept by SAW faculty, but electronic versions are posted to the internet by the staff of the Alfred Gray Research Center of the Marine Corps University Library, located at Quantico, Virginia. Future War papers may be found at http://65.114.145.226/. When a paper was not posted, due to classification or other issue, papers were acquired in

consultation with Grey Research Center Archive Librarians and the SAW faculty.

SAASS theses are maintained by the school's staff in Montgomery, Alabama. For the early years of SAASS, thesis titles were posted online; entire theses were posted electronically in Adobe .pdf format in more recent years. These documents can be accessed at https://www.afresearch.org/skins/RIMS/home.aspx after site registration and are maintained by the staff of the Muir S. Fairchild Research Information Center of Air University. As is the case with both SAMS and SAW papers, the theses not posted to the internet were made available on request to the SAASS Staff.

Once graduates' papers were collected from the above sources, they were crosschecked against the full list of 1,209 ASG alumni, provided by each ASG school, to ensure accountability. Titles were then created as surrogate records to represent each document and recorded into both a Microsoft Excel 2007 spreadsheet and a PASW 18.0.0 statistical analysis database, highlighting participant name, branch of service, country, year of graduation, paper title, and a unique participant identification number, from one to 1,209.

In-depth analysis of ASG schools' archives revealed substantial numbers of papers missing from online archived data — gaps that were in some cases unbeknownst to the schools' librarians. These gaps were largely resolved with respect to monographs from the School of Advanced Military Studies (SAMS) and theses from the School of Advanced Air and Space Studies (SAASS), but unfortunately, some gaps still exist in School of Advanced Warfighting (SAW) archives, especially in the early years of the SAW's history. As a result, only 67.4% of SAW Future War research papers were analyzed in this study.

Data Analysis

Once captured, data concerning the research participants' theses needed to be properly categorized using well-established criteria. To fulfill this necessity, the researcher categorized 1,124 of the 1,209 possible theses in accordance with Myers' (2005) Range of Military Operations (ROMO) spectrum. See Figure 10.

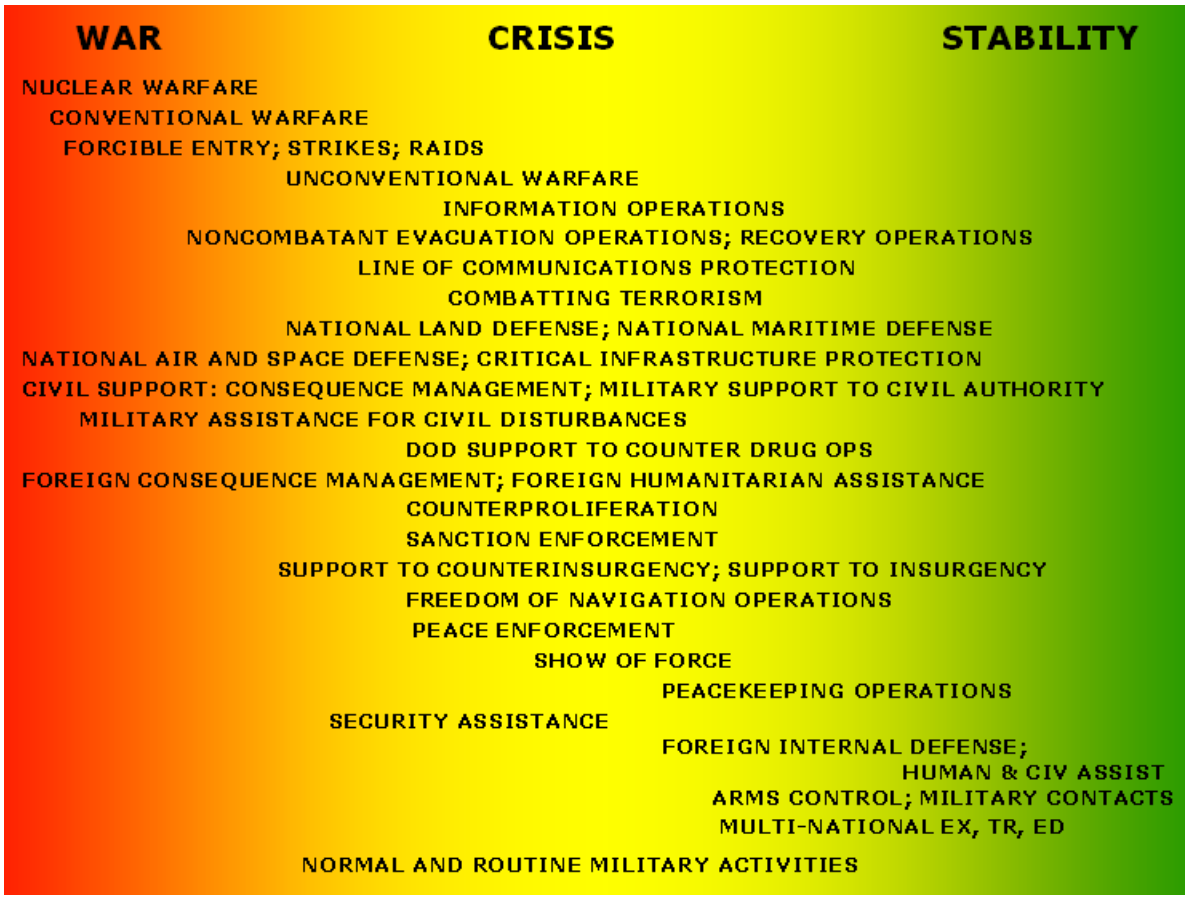

Figure 10. The Range of Military Operations (ROMO) Spectrum

The ROMO spectrum was promulgated by Myers (2005), the former Chairman of the Joint Chiefs of Staff, to describe the complex myriad of duties military forces are expected to perform in the post-Cold War world.

> [The ROMO] reflects both adversary-focused and humanitarian non-adversary operations in which the future joint force is expected to engage. The United States will remain continuously engaged across the globe in a continuum ranging from peace and stability (maintained by shaping and deterrent activities), through conflict to reconstruction, with a goal of maintaining or returning to a state of peace and stability in

> which U.S. national security interests are assured.(p. 10)

By assigning a nominal value to each ROMO category, the researcher created a numerical spectrum ranging from 1 to 29. Values 1 through 27 each represent a single ROMO category, while 28 and 29 were added to cover the possibility of a thesis covering multiple ROMO categories (28), or miscellaneous categories (29). Both multiple and miscellaneous papers were further analyzed to determine topic trends. See Table 2.

Table 2

Range of Military Operations Value by Category

ROMO Topic	ROMO VALUE
Nuclear Warfare	1
Conventional Warfare	2
Forcible Entry; Strikes; Raids	3
Unconventional Warfare	4
Information Operations	5
Noncombatant Evacuation Operations; Recovery Operations	6
Line of Communications Protection	7
Combating Terrorism	8
National Land Defense; National Maritime Defense	9
National Air and Space Defense; Critical Infrastructure Protection	10
Civil Support: Consequence Management; Military Support to Civil Authority	11
Military Assistance for Civil Disturbances	12
DoD Support to Counter-Drug Operations	13
Foreign Consequence Management; Foreign Humanitarian Assistance	14
Counter-proliferation	15
Sanction Enforcement	16
Support to Counterinsurgency; Support to Insurgency	17
Freedom of Navigation Operations	18

(continued)

Table 2

Range of Military Operations Value by Category (continued)

ROMO Topic	ROMO VALUE
Peace Enforcement	19
Show of Force	20
Peacekeeping Operations	21
Security Assistance	22
Foreign Internal Defense	23
Human and Civilian Assistance	24
Arms Control: Military Contacts	25
Multi-national Exercises, Training, Education	26
Normal and Routine Military Activities	27
Multiple ROMO Topics	28
Miscellaneous	29

Categories Defined

The following definitions were utilized for purposes of categorizing the participants' theses. With few exceptions, these definitions were collected from Fry's (2009) Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*. When a specific definition was not listed in Joint Publication 1-02, alternative definitions, mostly found in other Department of Defense Joint Publications, are noted.

1. Nuclear Warfare. "Warfare involving the employment of nuclear weapons" (Fry, 2009, p. 302).

2. Conventional Warfare. "Armed conflicts openly waged by one state against another by means of their regular armies" (van Creveld, 2004, p. 1).

3a. Forcible Entry. "Seizing and holding a military lodgment in the face of armed opposition" (Fry, 2009, p. 213).

3b. Strikes. "An attack to damage or destroy an objective or a capability" (Fry, 2009, p. 521).

3c. Raids. "An operation to temporarily seize an area in order to secure information, confuse an adversary, capture personnel or equipment, or to destroy a capability. It ends with a planned withdrawal upon completion of the assigned mission" (Fry, 2009, p. 448).

4. Unconventional Warfare. "A broad spectrum of military and paramilitary operations, normally of long duration, predominantly conducted through, with, or by indigenous or surrogate forces who are organized, trained, equipped, supported, and directed in varying degrees by an external source. It includes, but is not limited to, guerrilla warfare, subversion, sabotage, intelligence activities, and unconventional assisted recovery" (Fry, 2009, p. 566).

5. Information Operations. "The integrated employment of the core capabilities of electronic warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to influence, disrupt, corrupt or usurp adversarial human and automated decision making while protecting our own" (Fry, 2009, pp. 260-261).

6a. Noncombatant Evacuation Operations. "Operations directed by the Department of State or other appropriate authority, in conjunction with the Department of Defense, whereby noncombatants are evacuated from foreign countries when their lives are endangered by war, civil unrest, or natural disaster to safe havens or to the United States" (Fry, 2009, p. 376).

6b. Recovery Operations. "Operations conducted to search for, locate, identify, recover, and return isolated personnel, human remains, sensitive equipment, or items critical to national security" (Fry, 2009, p. 454).

7. Line of Communications Protection. "Protection of a route, either land, water, and/or air, that connects an operating military force with a base of operations and along which supplies and military forces move" (Fry, 2009, pp. 313-314).

8. Combating Terrorism. "Actions, including antiterrorism (defensive measures taken to reduce vulnerability to terrorist acts) and counterterrorism (offensive measures taken to prevent, deter, and respond to terrorism), taken to oppose terrorism throughout the entire threat spectrum" (Fry, 2009, p. 98).

9a. National Land Defense. Defense of United States' sovereign land territory.

9b. National Maritime Defense. Defense of United States' territorial waters.

10a. National Air and Space Defense. Defense of United States' sovereign airspace.

10b. Critical Infrastructure Protection. "Actions taken to prevent, remediate, or mitigate the risks resulting from vulnerabilities of critical infrastructure assets. Depending on the risk, these actions could include: changes in tactics, techniques, or procedures; adding redundancy; selection of another asset; isolation or hardening; guarding, etc." (Fry, 2009, p. 134).

11a. Civil Support; Military Support to Civil Authority. "Department of Defense support to US civil authorities for domestic emergencies, and for designated law enforcement and other activities" (Fry, 2009, p. 89).

11b. Consequence Management. "Actions taken to maintain or restore essential services and manage and mitigate problems resulting from disasters and catastrophes, including natural, man-made, or terrorist incidents" (Fry, 2009, p. 113).

12. Military Assistance for Civil Disturbances. "A mission of civil support involving Department of Defense support, normally based on the direction of the President, to suppress insurrections, rebellions, and domestic violence, and provide federal supplemental assistance to the states to maintain law and order" (Fry, 2009, p. 338).

13. DoD Support to Counter-Drug Operations. "Those active measures taken to detect, monitor, and counter the production, trafficking, and use of illegal drugs" (Fry, 2009, p. 127).

14a. Foreign Consequence Management. "Assistance provided by the United States Government to a host nation to mitigate the effects of a deliberate or inadvertent chemical, biological, radiological, nuclear, or high-yield explosives attack or event and restore essential government services" (Fry, 2009, p. 213).

14b. Foreign Humanitarian Assistance. "Department of Defense activities, normally in support of the United States Agency for International Development or Department

of State, conducted outside the United States, its territories, and possessions to relieve or reduce human suffering, disease, hunger, or privation" (Fry, 2009, p. 213).

15. Counter-proliferation. "Those actions taken to defeat the threat and/or use of weapons of mass destruction against the United States, our forces, friends, allies, and partners" (Fry, 2009, p. 341).

16. Sanction Enforcement. "Operations that employ coercive measures to interdict the movement of certain types of designated items into or out of a nation or specified area" (Fry, 2009, p. 477).

17a. Support to Counterinsurgency. "Comprehensive civilian and military efforts taken to defeat an insurgency and to address any core grievances" (Fry, 2009, p. 128).

17b. Support to Insurgency. "The organized use of subversion and violence by a group or movement that seeks to overthrow or force change of a governing authority. Insurgency can also refer to the group itself" (Fry, 2009, p. 266).

18. Freedom of Navigation Operations. "Operations conducted to demonstrate U.S. or international rights to navigate air or sea routes" (Fry, 2009, p. 218).

19. Peace Enforcement. "Application of military force, or the threat of its use, normally pursuant to international authorization, to compel compliance with resolutions or sanctions designed to maintain or restore peace and order" (Fry, 2009, p. 410).

20. Show of Force. "An operation designed to demonstrate U.S. resolve that involves increased visibility of U.S. deployed forces in an attempt to defuse a specific situation that, if allowed to continue, may be detrimental to U.S. interests or national objectives" (Fry, 2009, p. 494).

21. Peacekeeping Operations. "Military operations undertaken with the consent of all major parties to a dispute, designed to monitor and facilitate implementation of an agreement (ceasefire, truce, or other such agreement) and support diplomatic efforts to reach a long-term political settlement" (Fry, 2009, p. 410).

22. Security Assistance. "Group of programs authorized by the Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act of 1976, as amended, or other related statutes by which the United States provides defense articles, military training, and other defense-related services by grant, loan, credit, or cash sales in

furtherance of national policies and objectives" (Fry, 2009, p. 485).

23. Foreign Internal Defense. "Participation by civilian and military agencies of a government in any of the action programs taken by another government or other designated organization to free and protect its society from subversion, lawlessness, and insurgency" (Fry, 2009, p. 214).

24. Humanitarian and Civilian Assistance. "Assistance to the local populace provided by predominantly US forces in conjunction with military operations and exercises. This assistance is specifically authorized by Title 10, United States Code, Section 401, and funded under separate authorities" (Fry, 2009, p. 247).

25. Arms Control: Military Contacts. "The identification, verification, inspection, limitation, control, reduction, or elimination of armed forces and armaments of all kinds under international agreement including the necessary steps taken under such an agreement to establish an effective system of international control, or to create and strengthen international organizations for the maintenance of peace" (Pace, 2008, p. VII-3).

26a. Multi-national Exercises. "An exercise containing one or more non-U.S. participating force(s)" (Fry, 2009, p. 358).

26b. Training. Self-explanatory.

26c. Education. Self-explanatory.

27. Normal and Routine Military Activities. "Generally and collectively, the broad functions that a combatant commander undertakes when assigned responsibility for a given geographic or functional area. Except as otherwise qualified in certain unified command plan paragraphs that relate to particular commands, 'normal operations' of a combatant commander include: planning and execution of operations throughout the range of military operations; planning and conduct of cold war activities; planning and administration of military assistance; and maintaining the relationships and exercising the directive or coordinating authority prescribed in Joint Publication 0-2 and Joint Publication 4-01" (Fry, 2009, p. 380).

Categorization

The researcher analyzed all monographs, final research papers, and theses, and categorized each by ROMO value based on the following five criteria. First, if a graduate's thesis topic fell cleanly into one of the 27 above ROMO values, it was so assigned. Second, if a

participant's thesis covered multiple topics, but emphasized one subject over the others, the paper was assigned as a single topic paper. Third, theses concerning logistics, the best way to organize, train, or equip military forces, or other such important but routine topics were assigned to category 27 (Normal and Routine Military Activities). Fourth, theses covering topics that apply equally to several categories, for example, a thesis written about Peace Operations, a term that includes both Peace Enforcement and Peacekeeping, were assigned to category 28 (Multiple ROMO Topics). Fifth and finally, topics that do not fit well into any category in the ROMO spectrum were categorized as 29 (Miscellaneous).

Statistics

In the researcher's effort to answer the research question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" theses data, once categorized, were analyzed for descriptive statistics using PASW 18.0.0 statistical analysis software. Data were graphed according to ASG, year of graduation, and branch of service using Microsoft Office Excel 2007 to examine demographic elements of the participant population.

Summary

Between 1992 and 2002, a total of 1,209 graduates, all high-potential leaders representing sixteen countries, graduated from three elite Department of Defense Advanced Studies Group schools: the School of Advanced Military Studies, the School of Advanced Warfighting, and the School of Advanced Air and Space Studies. As part of their respective ASG curriculum, each of these graduates completed a monograph, final research paper, or thesis, reflecting military topics the graduates found compelling. By collecting and collating 1,124 of these papers, qualitatively assigning a nominal value based on categories defined in the Range of Military Operations spectrum, and quantitatively analyzing the resulting values, the researcher sought to answer the research question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?"

CHAPTER FOUR:

ANALYSIS OF DATA

"Take time to deliberate, but when the time for action has arrived, stop thinking and go in."

—Napoleon Bonaparte

Introduction

The researcher collected and analyzed the data in this chapter to answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" A perfect understanding of these issues is impossible, but by collating insights gleaned from 1,124 monographs, research papers, and theses written by Advanced Studies Group (ASG) graduates in the 1992-2002 time period, major trends in the thought processes of these key mid-level officers is identifiable. These trends will be discussed in detail in Chapter Five; categorized data and resulting analysis is described below.

Organization of Data Analysis

All research data were collected and collated using methods described in Chapter Three. Data are presented in Appendices C, D, and E for SAMS, SAW, and SAASS, respectively. The first column identifies the graduates' unique identification numbers. This value does not affect

the study's results, but is merely a nominal value for the researcher to keep administrative track of all data.

The second column, "Service/Country," lists the graduates' branch of military service. In this column, "USA" refers to the United States Army, "USAF" refers to the United States Air Force, "USMC" refers to the United States Marine Corps, and "USN" refers to the United States Navy. In the case of international graduates, their respective countries are listed rather than branch of service. Notably, the lone civilian graduate is listed as "DIA," the Defense Intelligence Agency.

The third and fourth columns are relatively self-explanatory. The third column, "AY" represents the academic year of graduation. All three ASG schools began their academic programs in the summer and finished approximately one year later. The fourth column is named "Title." This column unsurprisingly lists the title of the relevant SAMS monograph, SAW Future War research paper, or SAASS thesis. If no monograph, research paper, or thesis was found for a graduate, the title "NO DATA" is listed.

Finally, the fifth column, "ROMO Value" shows the nominal value the researcher assigned to each paper. In some cases, paper titles were sufficient to confer appropriate ROMO codes. In cases where the title is too

ambiguous for spot categorization, a review of the papers' abstracts, or in some cases a review of papers' full texts, was required.

In addition to appendices containing categorized data, tables reflecting frequency distribution charts acquired via PASW 18.0.0 statistical analysis software may be found below. These charts list the frequency of each ROMO category, as well as the percent of each category to the overall population. Further, the charts are subdivided into four time blocks for each ASG school: 1992-2002, 1992-1995, 1996-1999, and 2000-2002. A separate table showing results broken out only for international and interagency graduates follows. Each table is visually represented using bar graphs constructed using Microsoft Office Excel 2007. In these graphs, an army green color indicates SAMS, red represents the Marine Corps' SAW, blue shows the Air Forces' SAASS, and gold signifies international and interagency graduates.

Population and Sample

School of Advanced Military Studies

Of the overall 687 SAMS monographs written from 1992-2002, 678, or 98.7%, were collected and analyzed in this study. Of the remaining nine, seven were written by graduates that had some papers in the archives, but not

their final monographs. The remaining two were listed by SAMS as graduates, but had no papers on file. This could be the result of a) missing data, b) classified paper topics, c) faculty adviser desire, or d) graduates' desire. The missing papers were written by eight U.S. Army officers and one for which no service data were recorded.

School of Advanced Warfighting

A total of 233 SAW Future War research papers were written from 1992-2002; 157, or 67.4%, were collected and analyzed in this study. Nine of the missing 76 papers were written by graduates that had some papers in the archives, but not their Future War research papers. The remaining 67 were listed by SAW as graduates, but had no research papers on file at all. This could be the result of a) missing data, b) classified paper topics, c) faculty adviser desire, or d) graduates' desire. The missing data belong to 46 U.S. Marine Corps, 12 U.S. Army, five U.S. Air Force, four U.S. Navy, and nine international officers. The missing international papers are especially disappointing, as the small overall population of international and civilian graduates (44) makes the small sample from missing papers more acute.

School of Advanced Air and Space Studies

Of the overall 289 SAASS theses written from 1992-2002, all 289, or 100.0%, were collected and analyzed in this study.

Research Question

1. What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?

Analysis of Data

School of Advanced Military Studies

The 678 valid SAMS monographs collected during this research varied in range from ROMO values of 1 to 29. The mode for the 1992-2002 time periods was 2 (Conventional Warfare). When subdivided into three time blocks, 1992-1995, 1996-1999, and 2000-2002, results were similar, but not identical. From 1992-1995, the ROMO range was 1 to 29, with a mode of 2. From 1996-1999, the ROMO range shortened slightly to 2 to 29, while the mode remained 2. From 2000-2002, the range remained 2 to 29, but the mode shifted to 27 (Normal and Routine Military Activities). Tables 3-6 show the frequency distribution of SAMS monographs over time.

Table 3

SAMS Monographs Frequency Distribution 1992-2002

SAMS_Monographs_1992_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.1	.1	.1
	2	232	33.8	34.2	34.4
	3	9	1.3	1.3	35.7
	4	12	1.7	1.8	37.5
	5	42	6.1	6.2	43.7
	6	2	.3	.3	44.0
	7	4	.6	.6	44.5
	8	8	1.2	1.2	45.7
	9	1	.1	.1	45.9
	10	9	1.3	1.3	47.2
	11	14	2.0	2.1	49.3
	12	3	.4	.4	49.7
	13	7	1.0	1.0	50.7
	14	12	1.7	1.8	52.5
	16	3	.4	.4	52.9
	17	9	1.3	1.3	54.3
	19	12	1.7	1.8	56.0
	21	15	2.2	2.2	58.3
	22	6	.9	.9	59.1
	23	1	.1	.1	59.3
	24	3	.4	.4	59.7
	25	7	1.0	1.0	60.8
	26	23	3.3	3.4	64.2
	27	133	19.4	19.6	83.8
	28	60	8.7	8.8	92.6
	29	50	7.3	7.4	100.0
	Total	678	98.7	100.0	
Missing	System	9	1.3		
Total		687	100.0		

Table 4

SAMS Monographs Frequency Distribution 1992-1995

SAMS_Monographs_1992_1995

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	.4	.4
	2	121	49.6	50.0	50.4
	3	6	2.5	2.5	52.9
	4	3	1.2	1.2	54.1
	5	13	5.3	5.4	59.5
	6	2	.8	.8	60.3
	7	3	1.2	1.2	61.6
	10	3	1.2	1.2	62.8
	11	1	.4	.4	63.2
	12	2	.8	.8	64.0
	13	2	.8	.8	64.9
	14	6	2.5	2.5	67.4
	16	1	.4	.4	67.8
	17	1	.4	.4	68.2
	19	6	2.5	2.5	70.7
	21	8	3.3	3.3	74.0
	22	1	.4	.4	74.4
	23	1	.4	.4	74.8
	26	3	1.2	1.2	76.0
	27	32	13.1	13.2	89.3
	28	12	4.9	5.0	94.2
	29	14	5.7	5.8	100.0
	Total	242	99.2	100.0	
Missing	System	2	.8		
Total		244	100.0		

Table 5

SAMS Monographs Frequency Distribution 1996-1999

SAMS_Monographs_1996_1999

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	65	27.7	28.3	28.3
	3	3	1.3	1.3	29.6
	4	3	1.3	1.3	30.9
	5	14	6.0	6.1	37.0
	8	2	.9	.9	37.8
	9	1	.4	.4	38.3
	10	3	1.3	1.3	39.6
	11	6	2.6	2.6	42.2
	13	1	.4	.4	42.6
	14	4	1.7	1.7	44.3
	16	2	.9	.9	45.2
	17	5	2.1	2.2	47.4
	19	4	1.7	1.7	49.1
	21	1	.4	.4	49.6
	22	2	.9	.9	50.4
	24	1	.4	.4	50.9
	25	4	1.7	1.7	52.6
	26	6	2.6	2.6	55.2
	27	49	20.9	21.3	76.5
	28	34	14.5	14.8	91.3
	29	20	8.5	8.7	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

Table 6

SAMS Monographs Frequency Distribution 2000-2002

SAMS_Monographs_2000_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	46	22.1	22.3	22.3
	4	6	2.9	2.9	25.2
	5	15	7.2	7.3	32.5
	7	1	.5	.5	33.0
	8	6	2.9	2.9	35.9
	10	3	1.4	1.5	37.4
	11	7	3.4	3.4	40.8
	12	1	.5	.5	41.3
	13	4	1.9	1.9	43.2
	14	2	1.0	1.0	44.2
	17	3	1.4	1.5	45.6
	19	2	1.0	1.0	46.6
	21	6	2.9	2.9	49.5
	22	3	1.4	1.5	51.0
	24	2	1.0	1.0	51.9
	25	3	1.4	1.5	53.4
	26	14	6.7	6.8	60.2
	27	52	25.0	25.2	85.4
	28	14	6.7	6.8	92.2
	29	16	7.7	7.8	100.0
	Total	206	99.0	100.0	
Missing	System	2	1.0		
Total		208	100.0		

School of Advanced Warfighting

The 157 valid SAW Future War research papers collected during this research varied in range from ROMO values of 1 to 29. The mode for the 1992-2002 time periods was 27 (Normal and Routine Military Activities). When subdivided into three time blocks, 1992-1995, 1996-1999, and 2000-2002, results changed to a greater extent than found at SAMS. From 1992-1995, the ROMO range was 1 to 29, with a mode of 19 (Peace Enforcement). From 1996-1999, the ROMO range remained 1 to 29, while the mode was 27 (Normal and Routine Military Activities). From 2000-2002, the range shifted slightly to 2 to 29, and the mode switched to 2 (Conventional Warfare). Tables 7-10 list the frequency distribution of SAW Future War research papers by time period.

Table 7

SAW Future War Research Papers Frequency Distribution 1992-2002

SAW_Future_War_Papers_1992_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	.9	1.3	1.3
	2	31	13.3	19.7	21.0
	3	14	6.0	8.9	29.9
	4	1	.4	.6	30.6
	5	10	4.3	6.4	36.9
	7	2	.9	1.3	38.2
	8	1	.4	.6	38.9
	10	1	.4	.6	39.5
	11	2	.9	1.3	40.8
	12	1	.4	.6	41.4
	17	1	.4	.6	42.0
	19	9	3.9	5.7	47.8
	21	1	.4	.6	48.4
	25	1	.4	.6	49.0
	26	13	5.6	8.3	57.3
	27	34	14.6	21.7	79.0
	28	22	9.4	14.0	93.0
	29	11	4.7	7.0	100.0
	Total	157	67.4	100.0	
Missing	System	76	32.6		
Total		233	100.0		

Table 8

SAW Future War Research Papers Frequency Distribution 1992-1995

SAW_Future_War_Papers_1992_1995

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.3	4.2	4.2
	2	4	5.3	16.7	20.8
	3	1	1.3	4.2	25.0
	12	1	1.3	4.2	29.2
	19	9	12.0	37.5	66.7
	25	1	1.3	4.2	70.8
	26	1	1.3	4.2	75.0
	28	3	4.0	12.5	87.5
	29	3	4.0	12.5	100.0
	Total	24	32.0	100.0	
Missing	System	51	68.0		
Total		75	100.0		

Table 9

SAW Future War Research Papers Frequency Distribution 1996-1999

SAW_Future_War_Papers_1996_1999

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.2	1.6	1.6
	2	10	11.6	15.6	17.2
	3	5	5.8	7.8	25.0
	4	1	1.2	1.6	26.6
	5	4	4.7	6.3	32.8
	7	2	2.3	3.1	35.9
	11	1	1.2	1.6	37.5
	21	1	1.2	1.6	39.1
	26	3	3.5	4.7	43.8
	27	19	22.1	29.7	73.4
	28	12	14.0	18.8	92.2
	29	5	5.8	7.8	100.0
	Total	64	74.4	100.0	
Missing	System	22	25.6		
Total		86	100.0		

Table 10

SAW Future War Research Papers Frequency Distribution 2000-2002

SAW_Future_War_Papers_2000_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	17	23.6	24.6	24.6
	3	8	11.1	11.6	36.2
	5	6	8.3	8.7	44.9
	8	1	1.4	1.4	46.4
	10	1	1.4	1.4	47.8
	11	1	1.4	1.4	49.3
	17	1	1.4	1.4	50.7
	26	9	12.5	13.0	63.8
	27	15	20.8	21.7	85.5
	28	7	9.7	10.1	95.7
	29	3	4.2	4.3	100.0
	Total	69	95.8	100.0	
Missing	System	3	4.2		
Total		72	100.0		

School of Advanced Air and Space Studies

The 289 valid SAASS theses collected during this research varied in range from ROMO values of 1 to 29. The mode for the 1992-2002 time periods was 2 (Conventional Warfare). When subdivided into three time blocks, 1992-1995, 1996-1999, and 2000-2002, results were almost the same as the overall results. From 1992-1995, the ROMO range was 2 to 29, with a mode of 2. From 1996-1999, the ROMO range extended slightly to 1 to 29, while the mode remained

2. From 2000-2002, the range remained 1 to 29, and the mode remained 2 (Conventional Warfare). Tables 11-14 show the frequency distribution of SAASS theses by time period.

Table 11

SAASS Theses Frequency Distribution 1992-2002

SAASS_Theses_1992_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.0	1.0	1.0
	2	108	37.4	37.4	38.4
	3	8	2.8	2.8	41.2
	4	8	2.8	2.8	43.9
	5	11	3.8	3.8	47.8
	6	3	1.0	1.0	48.8
	7	4	1.4	1.4	50.2
	8	8	2.8	2.8	52.9
	9	3	1.0	1.0	54.0
	10	26	9.0	9.0	63.0
	13	1	.3	.3	63.3
	14	1	.3	.3	63.7
	15	3	1.0	1.0	64.7
	16	4	1.4	1.4	66.1
	17	4	1.4	1.4	67.5
	19	7	2.4	2.4	69.9
	20	1	.3	.3	70.2
	21	2	.7	.7	70.9
	22	3	1.0	1.0	72.0
	24	1	.3	.3	72.3
	26	10	3.5	3.5	75.8
	27	58	20.1	20.1	95.8
	28	4	1.4	1.4	97.2
	29	8	2.8	2.8	100.0
	Total	289	100.0	100.0	

Table 12

SAASS Theses Frequency Distribution 1992-1995

SAASS_Theses_1992_1995

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	42	42.0	42.0	42.0
	3	3	3.0	3.0	45.0
	4	3	3.0	3.0	48.0
	5	4	4.0	4.0	52.0
	7	1	1.0	1.0	53.0
	8	2	2.0	2.0	55.0
	10	9	9.0	9.0	64.0
	13	1	1.0	1.0	65.0
	15	3	3.0	3.0	68.0
	17	1	1.0	1.0	69.0
	19	5	5.0	5.0	74.0
	21	1	1.0	1.0	75.0
	22	3	3.0	3.0	78.0
	26	2	2.0	2.0	80.0
	27	18	18.0	18.0	98.0
	29	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Table 13

SAASS Theses Frequency Distribution 1996-1999

SAASS_Theses_1996_1999

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1.9	1.9	1.9
	2	36	33.6	33.6	35.5
	3	2	1.9	1.9	37.4
	4	1	.9	.9	38.3
	5	5	4.7	4.7	43.0
	6	2	1.9	1.9	44.9
	7	3	2.8	2.8	47.7
	8	1	.9	.9	48.6
	9	1	.9	.9	49.5
	10	7	6.5	6.5	56.1
	16	3	2.8	2.8	58.9
	17	3	2.8	2.8	61.7
	19	2	1.9	1.9	63.6
	20	1	.9	.9	64.5
	21	1	.9	.9	65.4
	24	1	.9	.9	66.4
	26	5	4.7	4.7	71.0
	27	26	24.3	24.3	95.3
	28	2	1.9	1.9	97.2
	29	3	2.8	2.8	100.0
	Total	107	100.0	100.0	

Table 14

SAASS Theses Frequency Distribution 2000-2002

SAASS_Theses_2000_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.2	1.2	1.2
	2	30	36.6	36.6	37.8
	3	3	3.7	3.7	41.5
	4	4	4.9	4.9	46.3
	5	2	2.4	2.4	48.8
	6	1	1.2	1.2	50.0
	8	5	6.1	6.1	56.1
	9	2	2.4	2.4	58.5
	10	10	12.2	12.2	70.7
	14	1	1.2	1.2	72.0
	16	1	1.2	1.2	73.2
	26	3	3.7	3.7	76.8
	27	14	17.1	17.1	93.9
	28	2	2.4	2.4	96.3
	29	3	3.7	3.7	100.0
	Total	82	100.0	100.0	

International and Interagency Graduates

Of a total of 44 international and interagency graduates, 35 SAMS monographs and SAW research papers were discovered in this research (79.5%). These 35 valid papers varied in range from ROMO values of 2 to 29. The mode for the 1992-2002 time periods was 2 (Conventional Warfare). Due to the small number of international and interagency graduates, the researcher did not further subdivide this category into time blocks. Table 15 lists the frequency

distribution of international and interagency monographs and research papers.

Table 15

International and Interagency Theses Frequency Distribution 2000-2002

International_and_Interagency_1992_2002

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	10	22.7	28.6	28.6
	4	1	2.3	2.9	31.4
	5	2	4.5	5.7	37.1
	11	1	2.3	2.9	40.0
	17	1	2.3	2.9	42.9
	19	1	2.3	2.9	45.7
	21	1	2.3	2.9	48.6
	22	1	2.3	2.9	51.4
	25	3	6.8	8.6	60.0
	26	1	2.3	2.9	62.9
	27	4	9.1	11.4	74.3
	28	2	4.5	5.7	80.0
	29	7	15.9	20.0	100.0
	Total	35	79.5	100.0	
Missing	System	9	20.5		
Total		44	100.0		

Multiple ROMO Topics

Of the 1,124 categorized theses, 74 graduates (6.6%) wrote their theses on topics that did not fall neatly into a single ROMO category, but rather applied equally to multiple ROMO topics. A few of these papers were written about two or more specific ROMO categories, such as

monograph #337, "Information operations – A new tool for peacekeeping." Most multiple topics papers, however, were written vaguely enough so as to be relevant to a larger number of topics. In fact, 39 multiple topics papers (3.5% of the 1,124 categorized theses) have equal relevance to all facets of the ROMO spectrum. Examples of these broad papers include monograph #21, "War termination: Theory, doctrine, and practice," and #356, "Limiting casualties: Imperative or constraint?"

In other cases, papers with multiple topics applied to a portion of the ROMO, but not the entire spectrum. To better understand what these graduates were thinking, papers concerning multiple ROMO topics were further subcategorized into three themes. The first theme included monographs, theses, and research papers that concerned the high end of the ROMO spectrum, that is, categories 1-10. Overall, 52 graduates wrote papers that could be included in this theme (4.6% of the 1,124 categorized theses). Examples of high end papers included Future War research paper #917, "Impact of Information and Precision-strike Technologies on Future Warfare," and SAASS thesis #1,133, "Integrating AI and space GMTI sensors: Step or stumbling block along the transition to an Aerospace Force?" The second multiple topic theme describes papers that were

written about the middle level of the ROMO spectrum, topics 11-20. In all, 66 papers (5.9% of the 1,124 categorized theses) incorporated mid-level ROMO material, including examples such as monograph #22, "Do the CINCs still have a job? Operational command in operations short of war," and thesis #1,124 "Striking the balance: Airpower rules of engagement in peace operations." The third and final multiple topic theme included those 62 papers (5.5%) written about topics 21-27, the low end of the ROMO scale, such as monograph #366, "Operational art in operations other than war."

Miscellaneous Topics

Of the 1,124 categorized theses, 80 graduates (7.1%) wrote their theses on topics that did not fall neatly into any ROMO category. Among these papers, 15 concerned issues unrelated to any other paper, ranging from topics such as monograph #256, "Environmental scarcity as a cause of violent conflict," to research paper #791, "Are you all that you could be? Meditation, mind-body control and physiological performance enhancement within the military."

Beyond these unrelated topics, 65 of the 80 papers categorized by a ROMO value of 29 fell into three overarching themes. The first theme, consisting of 20 papers, involved topics relating to non-military

instruments of national power: diplomacy, information, and economics. Examples include the Future War research papers #694, "Interdependent world economy and the demise of the military as a national element of power," and #474, "*Pax Americana*: America's bid for perpetual peace and hegemony."

Another 17 papers concerned leadership topics, especially development of operational and strategic level leaders. These papers did not utilize leadership as a lens through which a ROMO topic could be studied, such as a paper concerning the best leadership traits for combating an insurgency. Rather, these 17 papers examined leadership development in the generic sense, often emphasizing the differences in leadership at the large organization level from that needed at more junior levels of service. Papers written on this theme include ones such as thesis #1,033, "Command dysfunction: Minding the cognitive war," and Future War research paper #897, "Wanted: Leaders who can change."

Finally, a third, slightly larger theme concerned topics relating to operational design and planning. It is interesting that only 28 papers (2.5%) highlighted this theme, as the three ASGs advertise themselves at least in part as schools preparing officers as experts in operational art and design (Marine Corps University, 2010;

United States Army Combined Arms Center, 2009). Papers related to this theme include ones such as research paper #971, "Architecture for victory: Hyper-planning for hyper-war," and monograph #11, "Operational art and the continuum."

Reliability

In an effort to ensure study reliability, the researcher chose a single ASG class at random, waited two weeks after all data had been categorized, and then performed a test-retest by re-categorizing the papers. The ROMO values of the sample (SAASS class of 1996) were then compared to the class' original scores. The retested classification matched the original classification in 23 instances out of 27, for a 85.2% commonality. See Appendix F for complete test-retest values.

Summary

Of the 1,209 monographs, final research papers, and theses written by Advanced Studies Group graduate students from 1992-2002, 1,124, or 93.0%, were collected and collated in the course of this research to answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?"

When categorized along the Range of Military Operations (ROMO) spectrum, analyzed for frequency and

mode, and subcategorized by time period, clear trends favoring the high and low end of the ROMO were revealed, with far fewer graduates concentrating on the middle range of the ROMO than those favoring the instrument's left and right limits. Further sub-categorization of miscellaneous topics show trends in three extra-ROMO themes: papers relating to non-military instruments of national power, operational and strategic level leadership development, and topics relating to operational design and planning. The trends revealed in this chapter point to several interesting findings, conclusions, and implications, each of which will be described in this study's final chapter.

CHAPTER FIVE:

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

"A nation that will insist on drawing a broad line of demarcation between the fighting man and the thinking man is liable to find its fighting done by fools and its thinking done by cowards."

—Lieutenant-General Sir William Francis Butler, GCB PC ADC

Introduction

This chapter begins with a brief summary of the research, "What were we thinking? An analysis of Department of Defense advanced studies group theses from Operation DESERT STORM to Operation IRAQI FREEDOM I, 1992-2002." After this synopsis, research findings are reviewed, followed by an examination of study conclusions and the implications that flow from those conclusions. The chapter concludes with ideas for future research in the area of joint military professional education.

Summary of the Study

The researcher undertook this study with the premise that not enough is known about what subjects key mid-level military leaders believed were dominant in the pre-2003 timeframe. In an effort to better understand what topics might have influenced the decision making of these important but largely unknown officers, a mixed-methods

study was employed to answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" By answering the question, the researcher gained insights into what intellectual influences might have affected these officers during the time leading up to the 2003 invasion of Iraq.

In preparation for the study, the researcher conducted a literature review covering five overarching subjects: adult learning theory, cohort learning communities, professional military education, advanced studies group research, and graduate student thesis selection. This review informed the research methodology: rather than allowing the benefits of hindsight to cloud the results of a purely qualitative or quantitative study, a mixed-methods research design was selected, one in which graduates' masters degree monographs, final research papers, or theses were qualitatively categorized along a 29 topic spectrum known as the Range of Military Operations (ROMO). Once categorized, the results were quantitatively reviewed for trends. A total of 1,124 papers were discovered out of a population of 1,209 graduates, for a total sample 93.0% of the ASG graduate population.

School of Advanced Military Studies

Figure 11 graphically depicts the overall School of Advanced Military Studies (SAMS) monograph distribution. Conventional warfare was by far the most common topic, accounting for 34.2% of monographs. Other popular topics included: (a) normal and routine military activities (21.8%), (b) multiple ROMO topics (12.4%), and (c) miscellaneous topics (7.4%). When combined, these four categories accounted for three quarters (75.8%) of SAMS monographs.

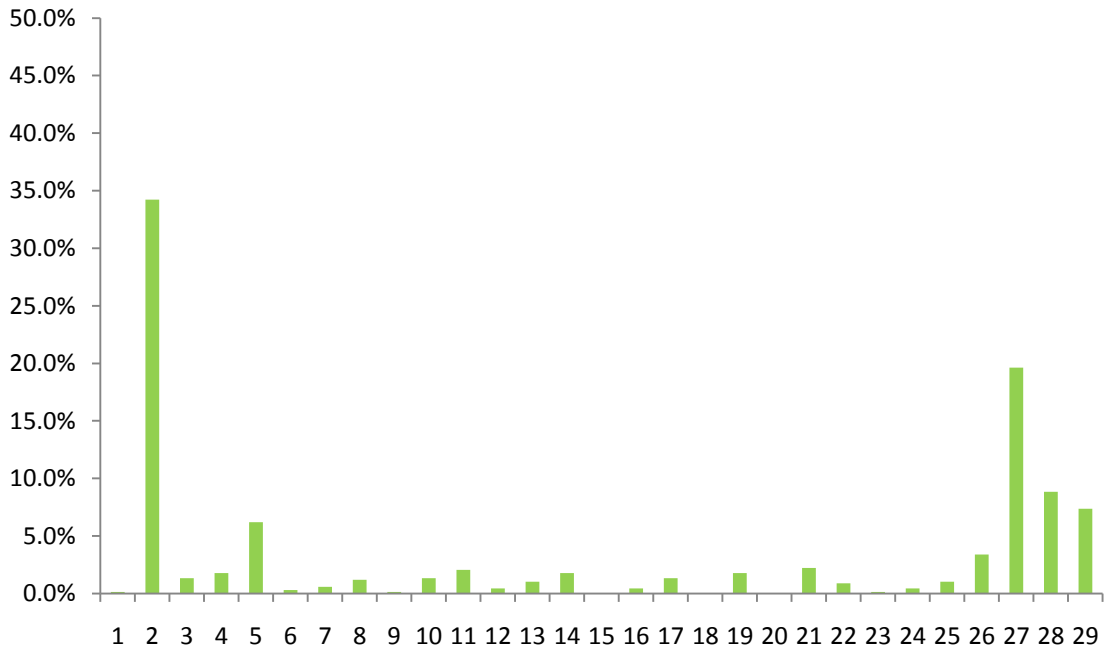

Figure 11. Frequency of SAMS Monographs by ROMO Topic 1992-2002

Figures 12-14 graphically depict a gradual shift of SAMS students over the 11-year study period away from Conventional Warfare topics in favor of monographs considering how best to organize the Army for the future. From a high of 50% in 1992-1995, conventional warfare dropped to 22.3% in 2000-2002. Simultaneously, normal and routine military activities topics doubled from a low of 14.5% in 1992-1995 to 29.1% in 2000-2002.

From 1992-2002, the period immediately after the 1991 liberation of Kuwait, through the immediate prelude to the 2003 invasion of Iraq, 1.2% of monographs were written on combating terrorism, while 1.3% discussed support to counterinsurgency.

Notably, there were three topics not covered by any of the 678 categorized SAMS monographs: (a) counter-proliferation, (b) freedom of navigation, and (c) show of force.

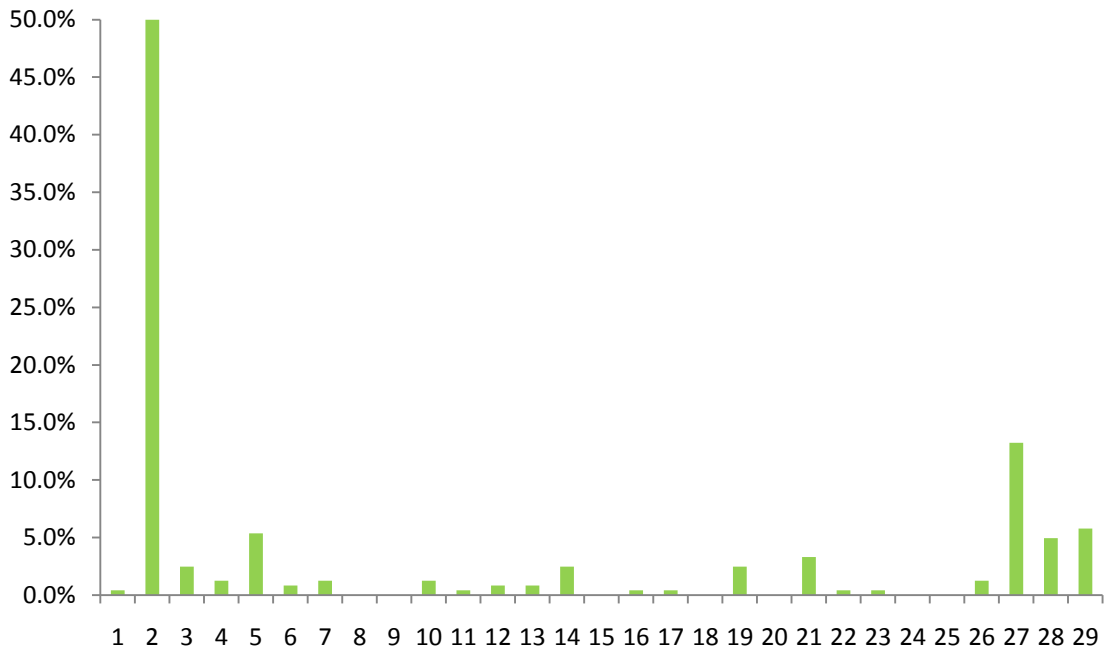

Figure 12. Frequency of SAMS Monographs by ROMO Topic 1992-1995

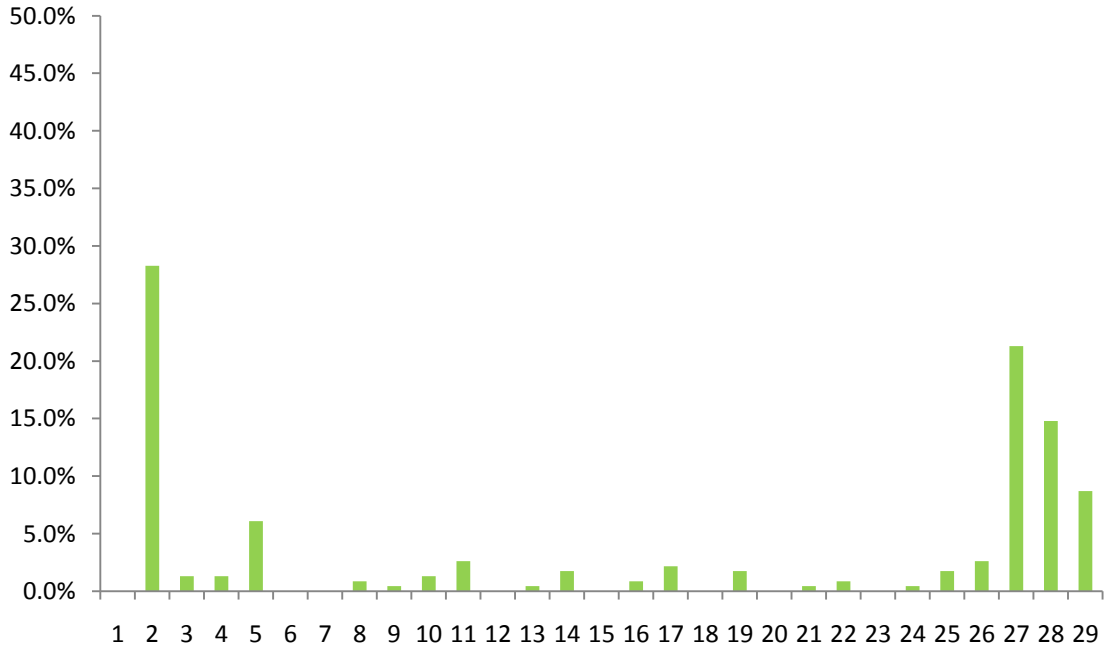

Figure 13. Frequency of SAMS Monographs by ROMO Topic 1996-1999

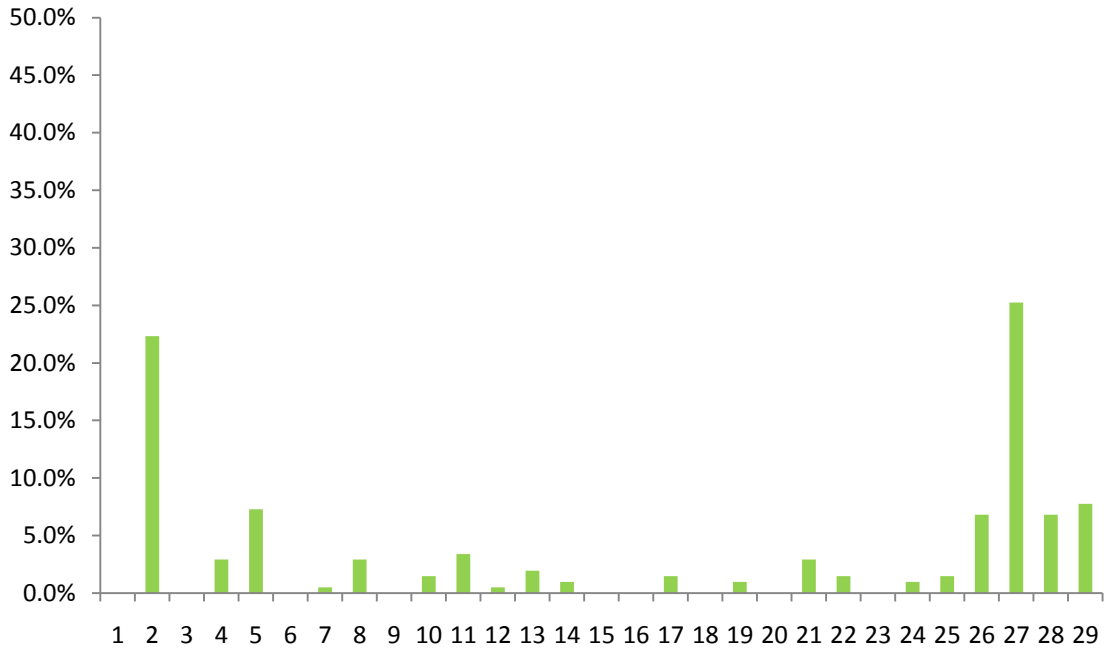

Figure 14. Frequency of SAMS Monographs by ROMO Topic 2000-2002

School of Advanced Warfighting

Figure 15 shows a graphical representation of School of Advanced Warfighting (SAW) Future War research papers from 1992-2002. SAW topics were slightly less concentrated than those of SAMS, but a small number of categories dominated all others, and numerous categories were completely skipped. Overall, five categories accounted for 72.6% of the distribution. Normal and routine military activities were the most common topic (21.7%), followed by: (a) conventional warfare (19.7%), (b) multiple ROMO topics (14%), (c) forcible entry; strikes; raids (8.9%), and (d) multi-national exercises, training, and education (8.3%).

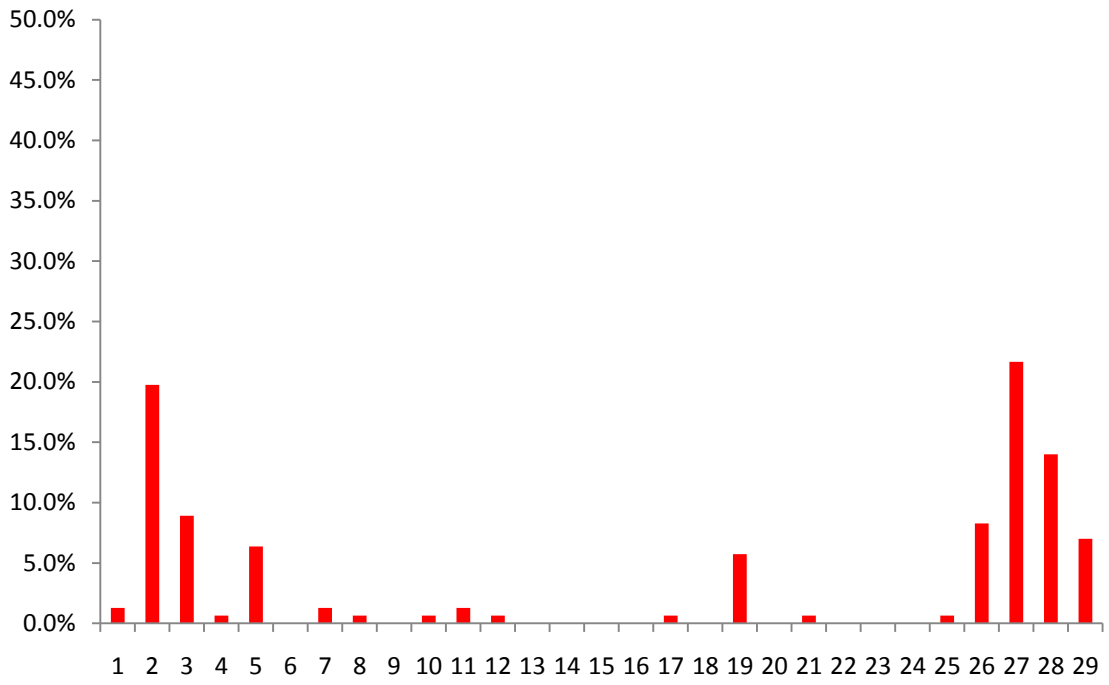

Figure 15. Frequency of SAW Future War Research Papers by ROMO Topic 1992-2002

Figures 16-18 show no obvious trends throughout the decade in between Operations' DESERT STORM and IRAQI FREEDOM I. From 1992-1995, 37.5% of papers were written on peace enforcement. However, two points should be made when considering this subcategory. First, an informal interview with a SAW professor indicate that the entire 1993 SAW class was directed to write a group paper entitled, "Operational planning considerations for peace enforcement" (B. Meyer, personal communication, March 18, 2010), the only time in the history of the course this was done, skewing the data of this year group. Additionally, a large number of SAW research papers from the 1992-1995 time

blocks are missing, resulting in a sample of only 24 graduates from a population of 75. Data from 1996-1999 and 2000-2002 is more complete, and perhaps unsurprisingly more in line with data from other ASG schools. Data from 1996-1999 and 2000-2002 suggests an increase in preference for topics concerning the more violent end of the ROMO spectrum over time.

Eleven of 29 ROMO topics were not covered by any of the 157 recorded research papers: (a) noncombatant evacuation operations, recovery operations; (b) national land defense, national maritime defense; (c) DoD support to counter drug operations; (d) foreign consequence management, foreign humanitarian assistance; (e) counter-proliferation; (f) sanction enforcement; (g) freedom of navigation; (h) show of force; (i) security assistance; (j) foreign internal defense; (k) human and civilian assistance.

From 1992-2002, the period from Operation DESERT STORM to IRAQI FREEDOM I, one SAW graduate wrote a Future War research paper on combating terrorism (0.6%) and one discussed support to counterinsurgency (0.6%).

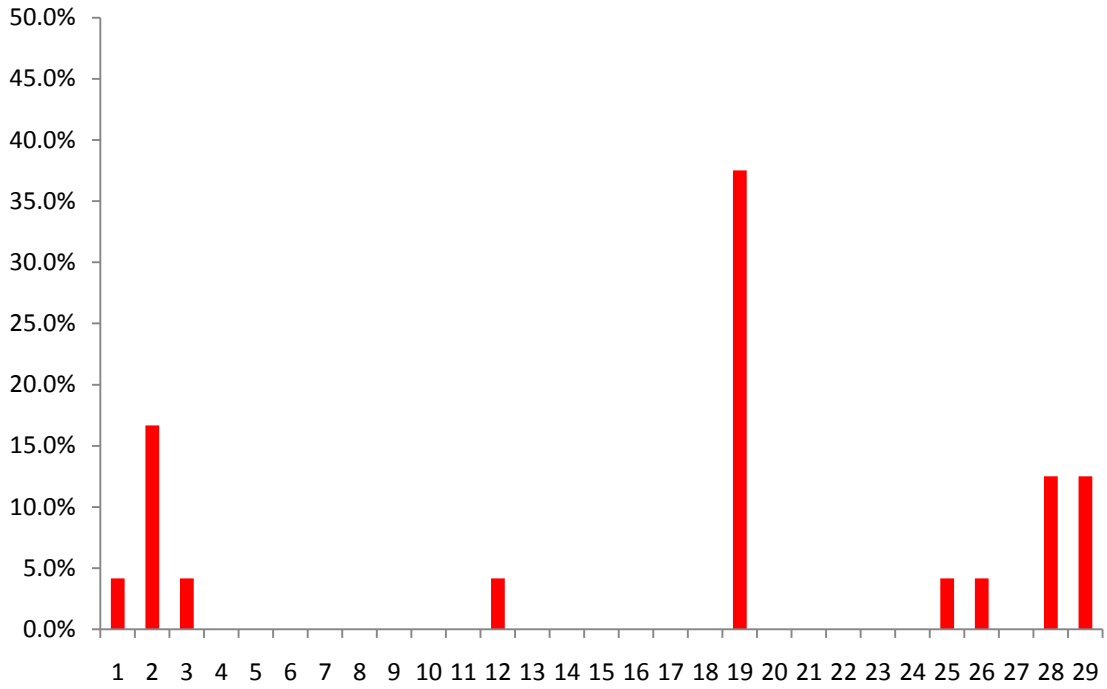

Figure 16. Frequency of SAW Future War Research Papers by ROMO Topic 1992-1995

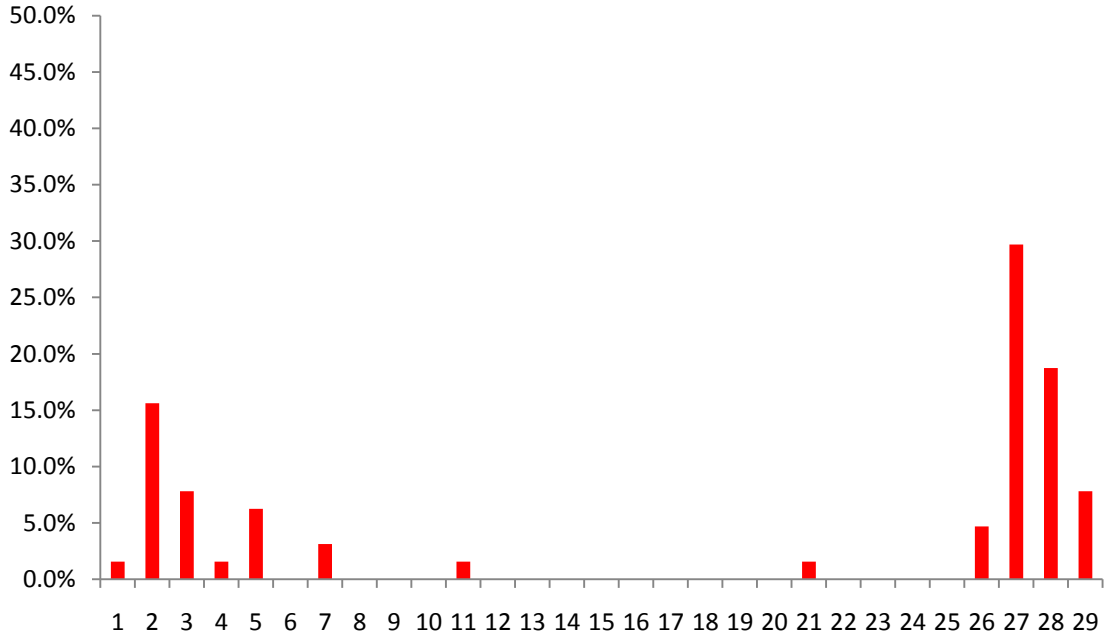

Figure 17. Frequency of SAW Future War Research Papers by ROMO Topic 1996-1999

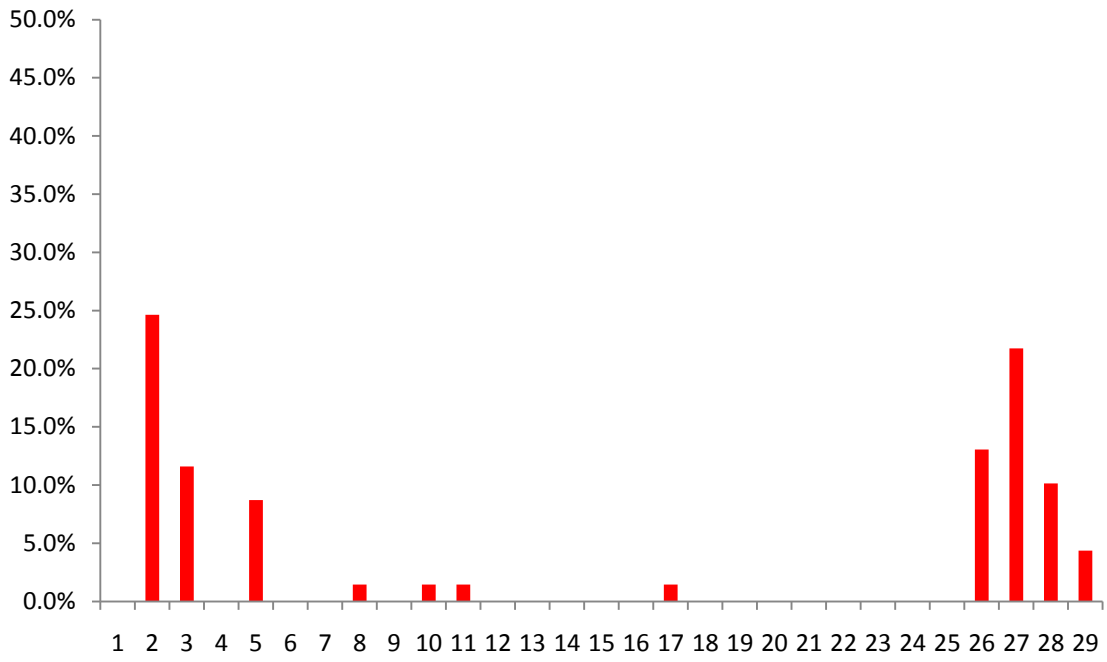

Figure 18. Frequency of SAW Future War Research Papers by ROMO Topic 2000-2002

School of Advanced Air and Space Studies

Figure 19 graphically depicts the overall School of Advanced Air and Space Studies (SAASS) theses distribution. Conventional warfare was the most selected topic, accounting for 37.4% of theses. Other common topics included: (a) normal and routine military activities (20.1%), (b) national air and space defense (9.0%), (c) unconventional warfare (3.8%), and (d) multi-national exercises, training, and education" (3.5%). When combined, these four categories accounted for nearly three quarters (73.8%) of SAASS theses.

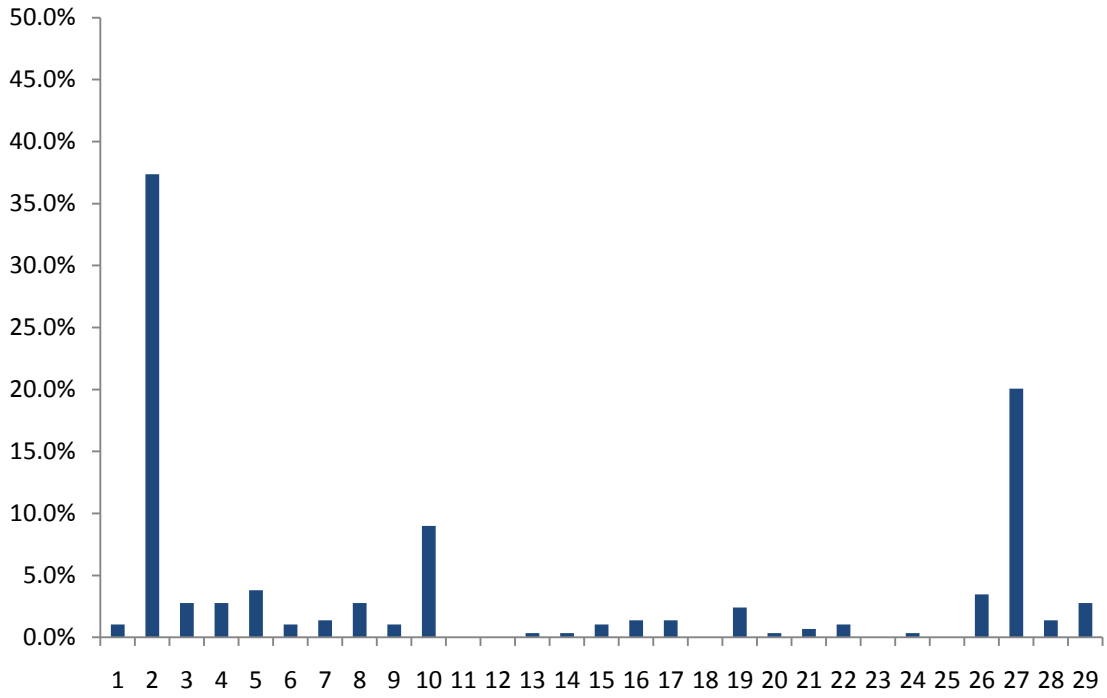

Figure 19. Frequency of SAASS Theses by ROMO Topic 1992-2002

Figures 20-22 graphically depict a clear preference among SAASS graduates for papers concerning conventional warfare, although the percentage decreased from 42% in 1992-1995 to a low of 33.6% in 1996-1999, before rebounding slightly to 36.6%. The second most selected topic, normal and routine activities, was 18.0% in 1992-1995, blossomed to 24.3% in 1996-1999, and then returned to 17.1% from 2000-2002.

From 1992-2002, the period immediately after the conclusion of Operation DESERT STORM (the 1991 liberation of Kuwait) to immediately before the beginning of IRAQI FREEDOM I (the 2003 invasion of Iraq), 3.8% of theses were

written on combating terrorism, while 1.4% discussed support to counterinsurgency.

Of the 289 SAASS graduates from 1992-2002, none wrote their theses on: (a) civil support, (b) military assistance for civil disturbances, (c) freedom of navigation, (d) foreign internal defense, or (e) arms control.

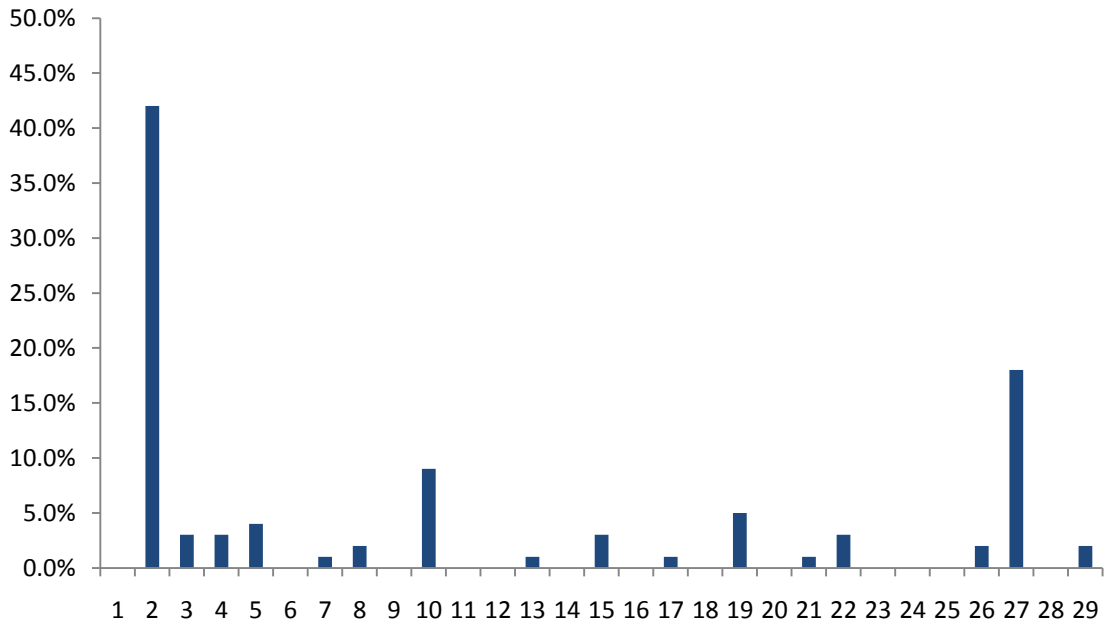

Figure 20. Frequency of SAASS Theses by ROMO Topic 1992-1995

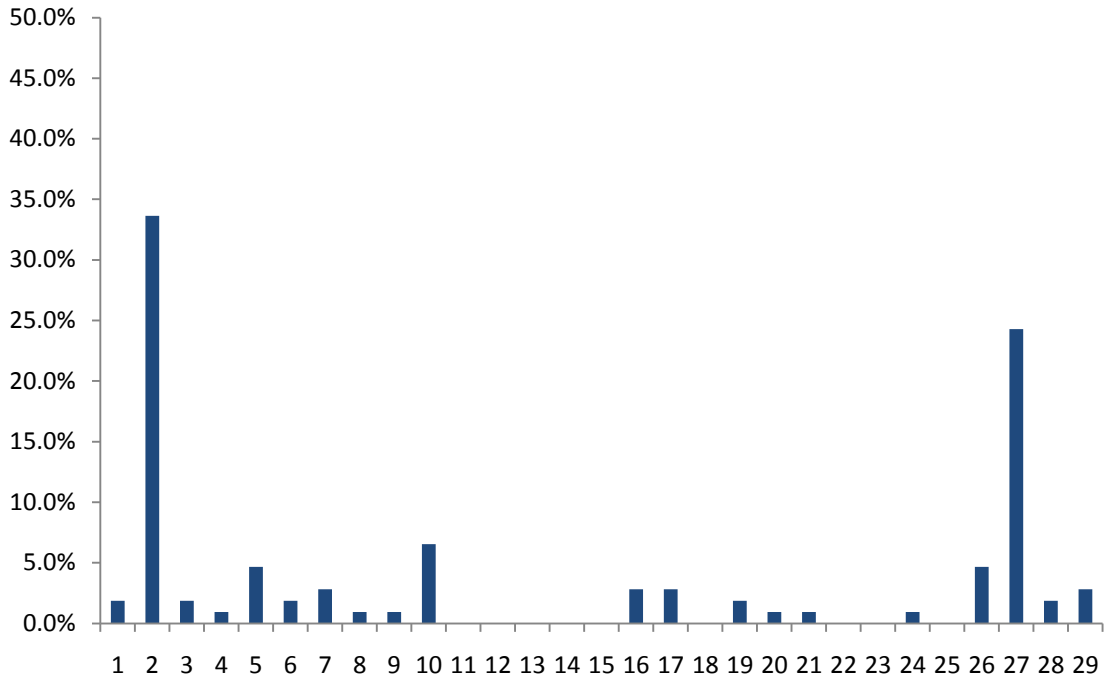

Figure 21. Frequency of SAASS Theses by ROMO Topic 1996-1999

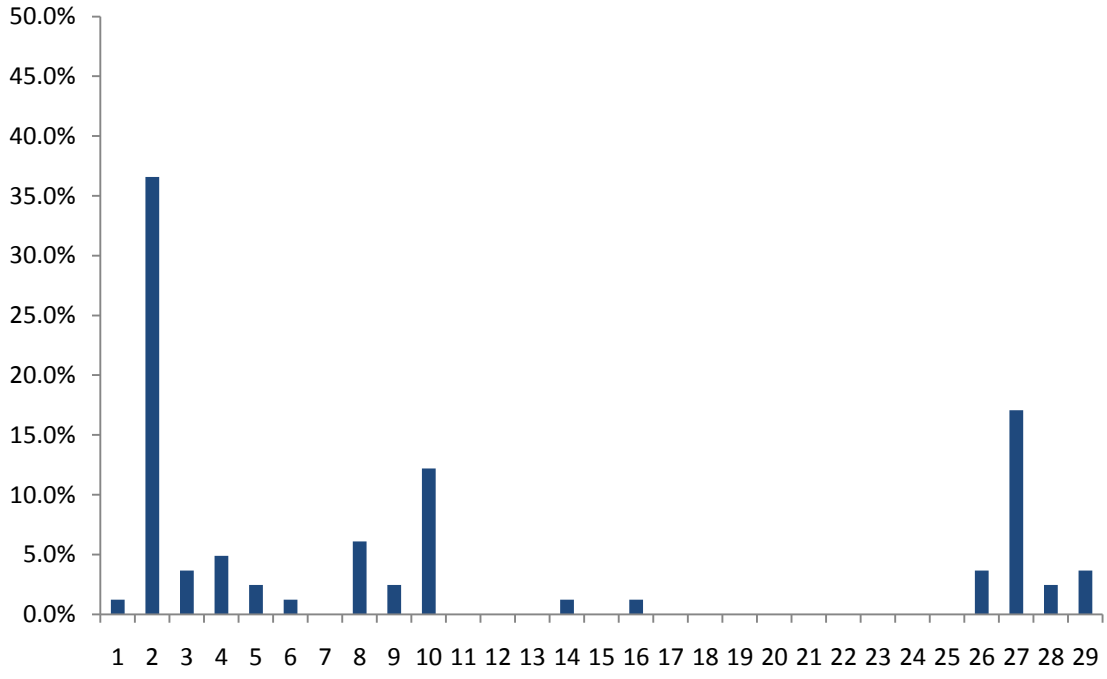

Figure 22. Frequency of SAASS Theses by ROMO Topic 2000-2002

International and Interagency Graduates

Figure 23 graphically depicts the overall international and interagency paper distribution. Similar to their American classmates, international ASG graduates favored conventional warfare as the most common topic, accounting for 28.6% of monographs and research papers. Other selected topics included: (a) miscellaneous (20.0%), (b) normal and routine military activities (11.4%), (c) unconventional warfare (5.7%), and (d) multiple topics (5.7%). When combined, these five categories accounted for 71.4% of international and interagency monographs and Future War research papers. The small international and interagency sample resulted in no less than 16 ROMO topics not selected. Due to the small sample size, international papers were not subdivided by year blocks.

From 1992-2002, zero international or interagency ASG graduates wrote their monograph or Future War research paper on combating terrorism. A single international officer, from the French Army, wrote his 2002 SAMS monograph on, "Stability and support operations, intervening armed forces and the population they serve: Defining a doctrine" (#624).

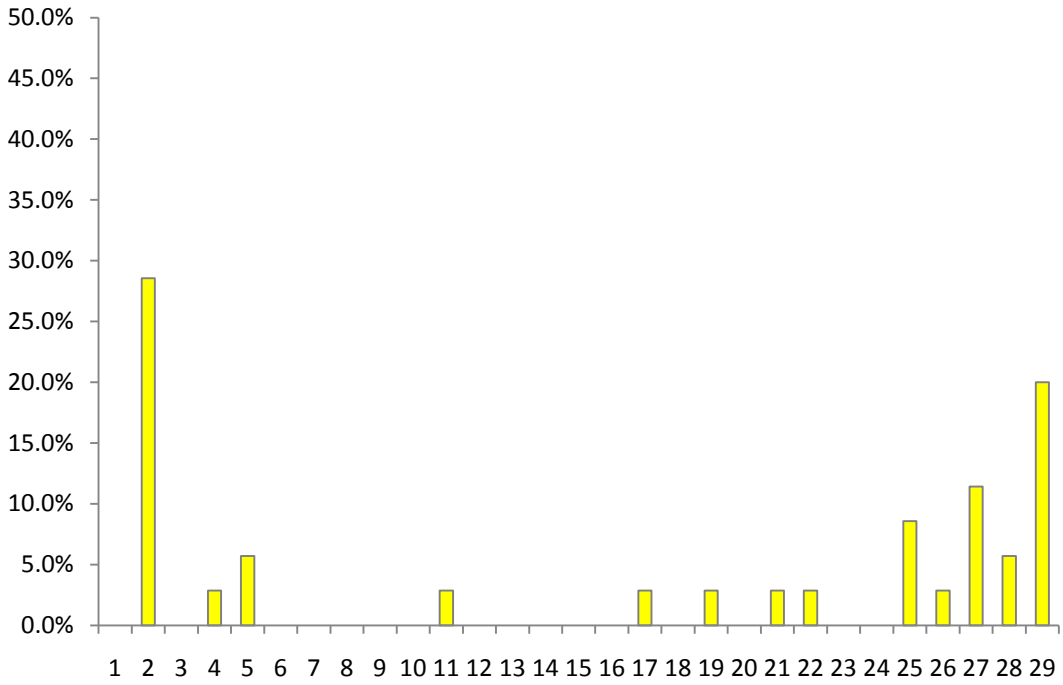

Figure 23. Frequency of International and Interagency Papers by ROMO Topic 1992-2002

Conclusions

School of Advanced Military Studies Dominance

When the results of all three schools are graphed holistically, three conclusions in ASG theses data emerged. The first conclusion is that due to the size advantage in alumni population, SAMS graduates were far more influential than the graduates of the other ASG schools during the period between 1992 and 2002. Figure 24 shows frequency of SAMS, SAW, and SAASS graduates' theses by number of graduates. Due to the large size of SAMS compared to SAW and SAASS, its graduates outnumbered, and therefore

necessarily dominated planning groups throughout military staffs in the run-up to the 2003 invasion of Iraq. That is not to say SAW and SAASS planners were not influential, but merely that as a practical matter, the volume of SAMS graduates dwarfed those of SAW and SAASS. As a result of this lopsided population, in the 2003 timeframe SAMS-educated thinkers, those statistically thirteen times more likely to have favored conventional warfare over counterterrorism and counterinsurgency combined, were contributing or even running planning cells throughout the military.

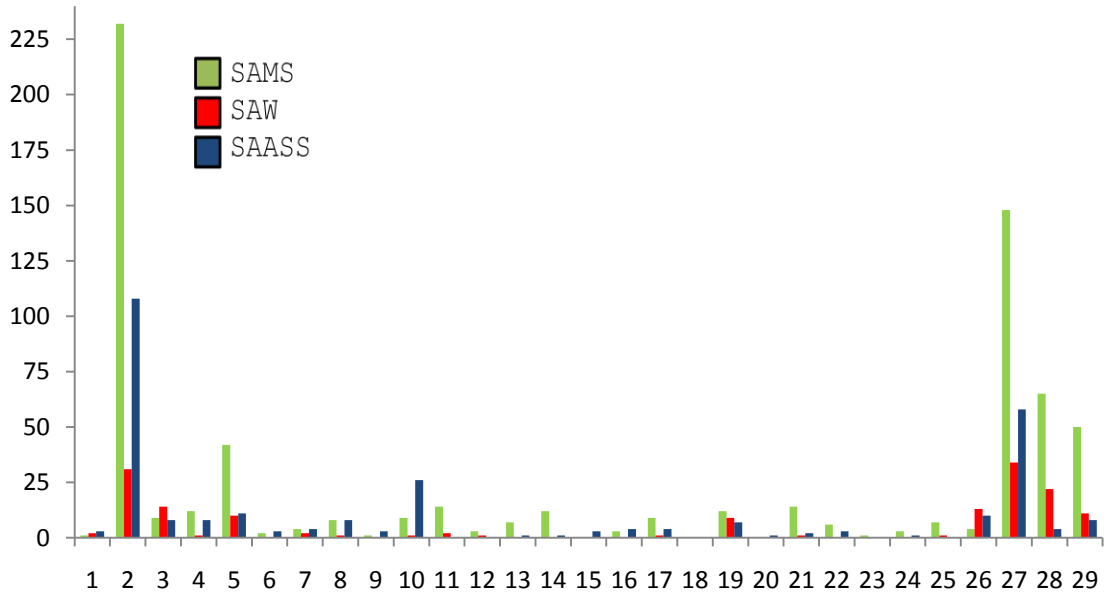

Figure 24. Frequency of ASG Papers by ROMO Topic (by number) 1992-2002

Advanced Studies Group Topics Trends

Even given that SAMS planners had not dominated staffs in the planning prior to the invasion if Iraq, the ROMO data do not show an appreciable difference between ASG school graduates in their preference of what issues were compelling in the 1992-2002 timeframe. Figure 25 shows the frequency of each ASG school by percentage, as well as a separate column for international and interagency graduates. Upon examination, this figure shows only minor differences in ROMO topic choice.

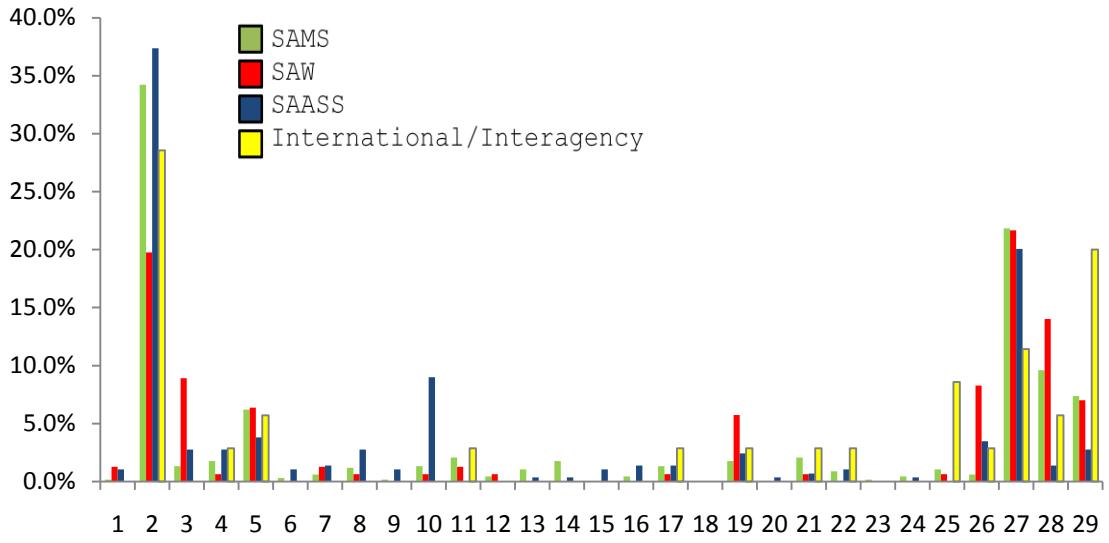

Figure 25. Frequency of ASG Papers by ROMO Topic (by percentage) 1992-2002

SAMS and SAASS graduates are shown to be within a few percentages points of each other in their preference for conventional warfare monographs and theses (34.2% to 37.4%, respectively). SAW graduates seemed much less interested in

this topic. However, upon closer examination, SAW graduates showed a much greater preference for forcible entry; strikes; raids. When one considers that an amphibious assault is both a forcible entry maneuver and action the Marine Corps would undertake in a conventional war, the differences between the schools shrinks; the percentage of graduates that chose either conventional warfare or forcible entry were: SAMS (35.5%), SAW (28.6%), SAASS (40.2%), International and Interagency (28.6%).

Notably, international ASG graduates were roughly as likely to write about conventional warfare as their American peers. It is sometimes implied the "American Way of War," overwhelming the enemy with technical and tactical superiority, shapes the mindset of American military officers. Key to this reasoning is the implication that our allies are more adept at missions on the lower end of the ROMO spectrum, missions that do not require the overwhelming resources available to the Defense Department. If this implication is true, it was not shown in the results of this study, as international ASG graduates tended to write their SAMS monographs and SAW research papers about the same topics as their American allies, with few exceptions.

The next difference in topic selection between schools is a greater preponderance of SAASS papers concerning national air and space defense. While space is a region of concern to all military services, space power is a core competency of the Air Force, and therefore it is not surprising to see a greater than average interest in it from SAASS graduates.

International graduates showed a large spike in arms control and military contacts. In part, this is an anomaly caused by the small sample size of internationals. However, SAW research papers such as #689, "The implications of a United States withdrawal from the Asia-Pacific region in the 21st century: Australia's choice: Sink or swim?" show an international interest in the desire of the United States to remain involved in world affairs, rather than withdrawing into an isolationist stance.

SAW graduates showed a larger interest than either their SAMS or SAASS peers in multi-national exercises, training, and education. This commendable preference was highlighted by the large number of international officers invited to attend SAW, a practice SAMS and SAASS emulated in later years, outside the scope of this research.

International officers were much more likely to write on a miscellaneous topic than their American classmates. Of

these papers, no discernible trends could be defined, as the six papers covered all three miscellaneous themes.

Conventional Warfare vs. Counterinsurgency

The third conclusion drawn from the ROMO data, and a natural corollary to the first two conclusions, is that almost all of the key mid-level military officers in the 1992-2002 timeframe were thinking of topics other than combating terrorism and support to counterinsurgency. Only 17 of 1,124 graduates (1.5%) discussed combating terrorism in their papers, including eight SAMS graduates, eight SAASS graduates, and a single SAW graduate. Interestingly, the school most likely to write about conventional warfare, SAASS, was twice as likely as SAMS to write about combating terrorism, albeit only at a 2.8% rate.

Papers concerning counterinsurgency were even rarer. Only 14 of 1,124 graduates wrote about this topic (1.2%). When combined, the 31 graduates who wrote about combating terrorism and support to counterinsurgency were dwarfed by the 402 graduates (35.8%) who wrote about conventional warfare, forcible entry, strikes, and raids.

Adult Learning and the Advanced Studies Group

The lopsided results of this ROMO analysis reaffirm Knowles' theory that adult learners accumulate experiences that can be used as an increasing resource for learning

(Smith, 2009), and Eraut's (2004) theory that experience is the most important facet of leadership education. The 1,124 ASG graduates from 1992-2002 tended to write about conventional warfare in large part because they were adult learners, and based on their experiences, conventional warfare was compelling. As the years of the 1990s progressed and officers saw more organizational change due to the post-Cold War military draw down, fewer papers were devoted to conventional warfare and more to routine topics such as how to organize the military for the future. Towards the end of the decade, as the 1999 Kosovo and 2001 Afghanistan campaigns developed without a large Army involvement, an increase of ASG papers in conventional warfare manifested themselves at SAW and SAASS, but not at SAMS.

The clusters of ROMO topics also fall in line with what researchers know about cohort education communities and thesis topic selection. Lawrence (2002) noted the strong bonds that develop between students can lead to synergistic effects in which the knowledge created by the cohort is greater than the sum of each student's knowledge. It is not difficult to imagine these strong bonds also encouraged similar thinking that might have led ASG graduates to cluster around popular theses topics, to the

possible detriment of original thinking. Similarly, researchers have provided constructs for thesis topic selection that include students' personal interest (Chandler, 2006) and faculty knowledge (Rockler-Gladen, 2007). To the extent ASG students and faculty likely had experience in few portions of the ROMO, it is understandable they would gravitate to those areas in which they were knowledgeable.

The conclusions of this research, based on an analysis of data from 1,124 ASG graduates, find that (a) SAMS educated officers were more influential than their sister-service educated peers due to sheer number of the student bodies, (b) ASG students of the time tended to think similar topics were compelling, and (c) ASG graduates were roughly 12 times more likely to find conventional warfare compelling than counterterrorism and counterinsurgency combined. With perfect hindsight, it is easy to find these results distressing. But is consternation over these results warranted, or is it asking too much for ASG graduates to predict the future?

Implications

SAMS advertises its mission as educating officers "to be agile and adaptive leaders who think critically at the strategic and operational levels to solve complex ambiguous

problems" (United States Army Combined Arms Center, "School of Advanced Military Studies," May 28, 2009). At the same time, SAW "develops complex problem solving and decision making skills that can be used to improve the warfighting capabilities of an organization at the operational level of war" ("Marine Corps University: School of Advanced Warfighting," 2010). For its part, SAASS exists to "produce strategists through advanced education in the art and science of air, space, and cyberspace power to defend the United States and protect its interests" (Gorman, 2009, p. 2).

Common to all three ASG schools' mission statements is the concept of developing critical thinking skills to foster both operational and strategic level decision making. The results of this research indicate that whatever educational benefits these three military graduate schools provided, they did not prevent their graduates from largely missing the key aspect of the Iraq campaign's operational environment. In many ways, this is not surprising: critical thinking skills are not the same as the ability to predict the future. Rather, critical thinking skills should allow ASG graduates to engage in Morgan's (2006) double-loop learning, and thus adapt quickly to unexpected circumstances.

In an effort to foster double-loop learning, ASG faculty should reexamine their curricula to determine if they are actively cultivating innovation on the part of their students. Winton (2005) noted a key facet of ASG development was "time for curriculum development" (p. 23). While the conclusions of this study admittedly end with data from 2002, the research results imply it may be time for curriculum refinement at all three schools. As a minimum, ASG faculty should reconsider how much leeway to give students in paper topic choice. While a draconian system of assigning monograph, research paper, or thesis topics seems likely to stifle innovation rather than promote it, thought should be given to requiring, or at least encouraging, paper topics from a realm outside students' primary field of expertise. In this way, students will be forced to reflect on how to adapt experiences and relate to unfamiliar topics, rather than instinctively retreating to the cloister of the known (Petraeus, 2007).

Some research suggests ASG graduates are already better equipped than their non-graduate peers to adapt to the complexities of war. Bras (2009) found a statistically significant relationship between SAMS attendance and counterinsurgency doctrine adherence. According to Bras, "the SAMS curriculum is created to be very relevant to

current operations. Because SAMS is a small institution, it can quickly respond to changes" (p. 33). The faculty of the ASG schools would second these results, as King et al. (2010) noted:

> SAW does not impart some kind of magic knowledge or ability to its graduates, some kind of planning secret or technique. The emphasis of the program is on the thoughtful integration of theory, history, and experience in the development of critical cognitive skills including analysis, synthesis, and evaluation. (p. 69)

There is a difference, however, between seconding sentiment and fostering learning. The ability to deal with the unexpected will be a critical requirement for current and future ASG graduates; how best to prepare them to deal with the unexpected is a topic worth revisiting. Grier (2005) observed the argument over what comprised appropriate curriculum has been debated since the days of Plato; ASG schools should not hesitate to take up that debate. Faculty must constantly reevaluate how to make successful schools even more successful, rather than resting on well-earned laurels.

Future Research

The results of this research create as many questions as they answer. Completion of a study that discovers what issues officers found to be compelling from 1992-2002

naturally leads to the desire to establish what issues have been deemed compelling from 2003 to the present. Further research to fill in the intellectual gap between the conclusion of this research and 2010 would be useful to those desiring to determine the adaptability of contemporary American military officers.

Further, as the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" is understood, the question, "Why did key mid-level military officers perceive these issues to be compelling?" becomes more urgent, as it may help keep key developments from being missed by military planners in future campaigns, with the associated savings in national blood and treasure. Adult learning theory teaches us that independent, experience-focused students will tend to find those issues compelling that are based upon their personal experiences. Research must be undertaken to determine ways to get students beyond the fundamentals of their experiences, or "intellectual comfort zones" (Petraeus, 2007, ¶ 3), and into those intellectual regions with which they may not be entirely comfortable.

Armed with the knowledge that ASG graduates did not predict the emergence of terrorism and insurgency as significant threats before the start of the campaign,

research must be done on the ability of these leaders to adapt once that knowledge became inescapable. Some research on this topic currently exists (Bras, 2009; Nagl & Yingling, 2006; Vandergriff, 2006), but more is required. The ability to adapt quickly to the unforeseen is critical to success in a military campaign (Clausewitz, 1832); research to determine if ASG schools are helping or hindering the development of officers' adaptability is sorely needed.

Summary

This study was undertaken to answer the question, "What issues did key mid-level military officers perceive to be compelling in the 1992-2002 timeframe?" Through a qualitative assessment of Advanced Studies Group graduates' monographs, research papers, and theses and a quantitative review of this assessment when collated along the Range of Military Operations instrument, the researcher gained important insights into what key mid-level military officers were thinking during the time between the 1991 liberation of Kuwait and the 2003 invasion of Iraq.

Due to the sheer size of the U.S. Army's school, the School of Advanced Military Studies (SAMS), graduates from this school dominated contemporary planning staffs when compared to their School of Advanced Warfighting (SAW) and

School of Advanced Air and Space Studies (SAASS) peers. However, an analysis of the data shows little substantive difference between the graduates of the three schools: one third of the graduates wrote theses concerning conventional warfare and another fifth wrote about routine military operations. With few exceptions, these officers, studying independently at three different locations in Kansas, Virginia, and Alabama, thought the same issues were compelling during the last decade of the twentieth century. It is notable that only 2.7% of graduates wrote their papers about the topics that have defined the military operating environment in the first decade of the twenty-first century: counterterrorism and counterinsurgency.

While a failure to anticipate the operating environment is disappointing, the missions of Advanced Studies Group schools, SAMS, SAW, and SAASS, as well as the more recent Navy and joint ASG schools, the Maritime Advanced Warfighting School and the Joint Advanced Warfighting School, are not to produce graduates capable of predicting the future, but rather engage in double-loop learning and adapting quickly to changing operational and strategic circumstances. By discouraging or restricting students from writing about topics in their primary field of expertise in favor of those topics outside of their life

experiences, Advanced Studies Group faculty can better exercise the intellectual flexibility of their students, to the long-term benefit of their graduates, the military, and the United States. History will show if, over the long term, they have been successful.

Appendix A

Program for Joint Professional Military Education Phase I Equivalent Credit

CHAIRMAN OF THE JOINT CHIEFS OF STAFF

WASHINGTON, D.C. 20318-9999

CM-0813-09
30 July 2009

MEMORANDUM FOR: Chief of Staff, U.S. Army
Chief of Naval Operations
Chief of Staff, U.S. Air Force
Commandant of the Marine Corps

Subject: Program for Joint Professional Military Education Phase I (JPME I) Equivalent Credit

1. The officer professional military education (PME) policy[1] states that Service Chiefs can award JPME I credit to U.S. officers who successfully complete a resident international military college program, subject to the provisions below:

a. The college is specified in the enclosure.

b. Individuals selected to attend these programs meet the same rigorous selection criteria as other intermediate and senior-level college PME attendees.

c. The Service grants PME credit for completion of the international military college program.

2. This memorandum supersedes CM-0513-08, 27 October 2008, "Program for Joint Professional Military Education Phase I (JPME I) Equivalent Credit."

M. G. MULLEN
Admiral, U.S. Navy

Enclosure

Reference:
1 CJCSI 1800.01 series, "Officer Professional Military Education Policy (OPMEP)"

ENCLOSURE
INTERNATIONAL MILITARY COLLEGES APPROVED FOR JOINT PROFESSIONAL MILITARY EDUCATION PHASE I (JPME I) EQUIVALENCE

ACADEMIC YEAR 2009-2010

Intermediate-Level JPME I Credit

- Academia de Guerra del Ejercito de Chile -Army War Academy of Chile
- Argentine Command and Staff College (Escuela Superior de Guerre)
- Argentine Naval War College
- Argentine Air Command and Staff College
- Armed Forces of the Philippines Command and General Staff College
- Australian Command and Staff College
- Austrian Defense Academy
- Baltic Defense Joint Command and General Staff College
- Belgian Command and Staff College
- Brazilian Air Force Command and Staff College
- Brazilian Army Command and Staff College (Escuela de Commando E Estado)
- Brazilian Naval War College, Command and Staff Course
- Canadian Forces Command and Staff College
- Chilean Naval War College
- Chilean Air Force Air War College (ACSC equivalent)
- Cours Superieur d'Etat Major
- Curso Superiore di Stato Maggiore Interforce (Italy)
- Defense Services Command and Staff College (Bangladesh Staff College)
- Defense Services Command and Staff College (Sri Lanka)
- Escuela Superior de las Fuerzas Armadas de Peru - Advanced School of the Armed Forces of Peru
- Finnish National Defense College
- French Command and Staff (College Interarmees de Defense)
- German General Staff/Adm Staff College (Fuehrungsakademie)
- German Armed Forces Staff College
- Hellenic Air War College
- Hellenic Army War College
- Hellenic National Defense College
- India Defence Service Staff College
- Indonesian Air Command and Staff College
- Indonesian Army Command and Staff College

- Indonesian Naval Command and Staff College
- Irish Command Staff College
- Italian Command and Staff College
- Italian Joint War College
- Japanese Maritime Self Defense Forces Staff College
- Japanese Ground Self Defense Forces Staff College
- Japanese Command and Staff College
- Korean Command and Staff College
- Korean Naval Command and Staff College
- Kuwait Joint Command and Staff College
- Republic of Korea Air Command and Staff Course
- Malaysian Armed Forces Staff College
- Netherlands Defense College Joint Command and Staff Officers Course
- Norwegian Defense Staff College
- Norwegian Armed Forces Staff College
- Peruvian Air Command Staff College
- Royal Air Force of Oman Staff College
- Royal Australian Joint Staff College
- Royal Australian Air Force Staff College
- Royal Thai Air Force Command and Staff College
- Royal Thai Army Command and General Staff College
- Singapore Command and Staff College
- South African Naval Command and Staff College
- Spanish Air Force Command and Staff College
- Spanish Armed Forces Joint Staff and Command Course
- Spanish Staff College (Curso de Estado Mayor)
- Spanish Joint Command and Staff College
- Swedish National Defense College
- Swedish Armed Forces Staff and War College Intermediate Service School
- Swiss International Training Course in Security Policy
- Swiss Military College
- Turkish Army War College
- United Arab Emirates Joint Command and Staff College
- United Kingdom Advance Command and Staff Course
- United Kingdom Joint Service Command and Staff College
- Uruguay Naval War College
- Uruguayan Military Institute of Advanced Studies
- Western Hemisphere Institute for Security Cooperation

Senior-Level JPME I Credit

- Argentine National Defense School Senior Course
- Australian College of Defence and Strategic Studies
- Bangladesh National Defense College
- Belgian Royal Defense Institute (formerly Belgian Air War College)
- Canadian Senior Service College
- Chilean Air Force Air Warfare College
- Escola Superior de Guerra -The Brazilian Superior War College
- French Defense College (College Interarmees De Defense)
- George C. Marshall European Center for Security Studies
- Geneva Centre for Security Studies International Training Course
- India National Defence College
- Inter-American Defense College
- International Training Course at Geneva Center for Security Policy
- Israel Defense Forces National Defense College
- Japan: The National Institute for Defense Studies
- Korea National Defense University
- Korean Naval War College
- NATO Defense College
- Pakistan National Defence College
- Peruvian Escuela de Guerra Naval (Naval War College)
- Royal College of Defence Studies (United Kingdom)
- Royal Jordanian National Defense College
- Royal Thai War College
- Royal Superior College of Defense (Belgium)
- Sekola Komando Tentara Nacional Indonesia
- Indonesian War College
- South African Air War College
- South African Senior Command and Staff College
- South African Senior Army Staff Course
- Turkish National Security College

Appendix B

Goldwater-Nichols
Defense Reorganization Act of 1986 Excerpt

Title X—Armed Forces

Subtitle A—General Military Law

Part I—Organization and General Military Powers

Chapter 5—Joint Chiefs of Staff

§ 153. Chairman: functions

(a) Planning; Advice; Policy Formulation.— Subject to the authority, direction, and control of the President and the Secretary of Defense, the Chairman of the Joint Chiefs of Staff shall be responsible for the following:

(5) Doctrine, Training, and Education.—

(A) Developing doctrine for the joint employment of the armed forces.

(B) Formulating policies for the joint training of the armed forces.

(C) Formulating policies for coordinating the military education and training of members of the armed forces.

Title X—Armed Forces

Subtitle A—General Military Law

Part III—Training and Education

Chapter 107—Professional Military Education

§ 2151. Definitions

(a) Joint Professional Military Education. — Joint professional military education consists of the rigorous and thorough instruction and examination of officers of the armed forces in an environment designed to promote a theoretical and practical in-depth understanding of joint matters and, specifically, of the subject matter covered. The subject matter to be covered by joint professional military education shall include at least the following:

(1) National Military Strategy.
(2) Joint planning at all levels of war.
(3) Joint doctrine.
(4) Joint command and control.
(5) Joint force and joint requirements development.

(b) Other Definitions.— In this chapter:

(1) The term "senior level service school" means any of the following:

(A) The Army War College.
(B) The College of Naval Warfare.
(C) The Air War College.
(D) The Marine Corps War College.

(2) The term "intermediate level service school" means any of the following:

(A) The United States Army Command and General Staff College.
(B) The College of Naval Command and Staff.
(C) The Air Command and Staff College.
(D) The Marine Corps Command and Staff College.

§ 2152. Joint professional military education: general requirements

(a) In General.— The Secretary of Defense shall implement a comprehensive framework for the joint professional military education of officers, including officers nominated under section 661 of this title for the joint specialty.

(b) Joint Military Education Schools.— The Secretary of Defense, with the advice and assistance of the Chairman of the Joint Chiefs of Staff, shall periodically review and revise the curriculum of each school of the National Defense University (and of any other joint professional military education school) to enhance the education and training of officers in joint matters. The Secretary shall require such schools to maintain rigorous standards for the military education of officers with the joint specialty.
(c) Other Professional Military Education Schools.— The Secretary of Defense shall require that each Department of Defense school concerned with professional military education periodically review and revise its curriculum for senior and intermediate grade officers in order to strengthen the focus on—

(1) joint matters; and

(2) preparing officers for joint duty assignments.

§ 2153. Capstone course: newly selected general and flag officers

(a) Requirement.— Each officer selected for promotion to the grade of brigadier general or, in the case of the Navy, rear admiral (lower half) shall be required, after such selection, to attend a military education course designed specifically to prepare new general and flag officers to work with the other armed forces.

(b) Waiver Authority.—

(1) Subject to paragraph (2), the Secretary of Defense may waive subsection(a)—

(A) in the case of an officer whose immediately previous assignment was in a joint duty assignment and who is thoroughly familiar with joint matters;

(B) when necessary for the good of the service;

(C) in the case of an officer whose proposed selection for promotion is based primarily upon scientific and technical qualifications for which joint requirements do not exist (as determined under regulations prescribed under section 619 (e)(4) of this title); and

(D) in the case of a medical officer, dental officer, veterinary officer, medical service officer, nurse, biomedical science officer, or chaplain.

(2) The authority of the Secretary of Defense to grant a waiver under paragraph (1) may only be delegated to the Deputy Secretary of Defense, an Under Secretary of Defense, or an Assistant Secretary of Defense. Such a waiver may be granted only on a case-by-case basis in the case of an individual officer.

§ 2154. Joint professional military education: three-phase approach

(a) Three-Phase Approach. — The Secretary of Defense shall implement a three-phase approach to joint professional military education, as follows:

(1) There shall be a course of instruction, designated and certified by the Secretary of Defense with the advice and assistance of the Chairman of the Joint Chiefs of Staff as Phase I instruction, consisting of all the elements of a joint professional military education (as specified in section 2151 (a) of this title), in addition to the principal curriculum taught to all officers at an intermediate level service school.

(2) There shall be a course of instruction, designated and certified by the Secretary of Defense with the advice and assistance of the Chairman of the Joint Chiefs of Staff as Phase II instruction, consisting of a joint professional military education curriculum taught in residence at—

(A) the Joint Forces Staff College; or

(B) a senior level service school that has been designated and certified by the Secretary of Defense as a joint professional military education institution.

(3) There shall be a course of instruction, designated and certified by the Secretary of Defense with the advice and assistance of the Chairman of the Joint Chiefs of Staff as the Capstone course, for officers selected for promotion to the grade of brigadier general or, in the case of the Navy, rear admiral (lower half) and offered in accordance with section 2153 of this title.

(b) Sequenced Approach.— The Secretary shall require the sequencing of joint professional military education so that the standard sequence of assignments for such education requires an officer to complete Phase I instruction before proceeding to Phase II instruction, as provided in section 2155 (a) of this title.

§ 2155. Joint professional military education Phase II program of instruction

(a) Prerequisite of Completion of Joint Professional Military Education Phase I Program of Instruction.—

(1) After September 30, 2009, an officer of the armed forces may not be accepted for, or assigned to, a program of instruction designated by the Secretary of Defense as joint professional military education Phase II unless the officer has successfully completed a program of instruction designated by the Secretary of Defense as joint professional military education Phase I.

(2) The Chairman of the Joint Chiefs of Staff may grant exceptions to the requirement under paragraph (1). Such an exception may be granted only on a case-by-case basis under exceptional circumstances, as determined by the Chairman. An officer selected to receive such an exception shall have knowledge of joint matters and other aspects of the Phase I curriculum that, to the satisfaction of the Chairman, qualifies the officer to meet the minimum requirements established for entry into Phase II instruction without first completing Phase I instruction. The number of officers selected to attend an offering of the principal course of instruction at the Joint Forces Staff College or a senior level service school designated by the Secretary of Defense as a joint professional military education institution who have not completed Phase I instruction should comprise no more than 10 percent of the total number of officers selected.

(b) Phase II Requirements. — The Secretary shall require that the curriculum for Phase II joint professional military education at any school—

(1) focus on developing joint operational expertise and perspectives and honing joint warfighting skills; and

(2) be structured—

(A) so as to adequately prepare students to perform effectively in an assignment to a joint, multiservice organization; and

(B) so that students progress from a basic knowledge of joint matters learned in Phase I instruction to the level of expertise necessary for successful performance in the joint arena.

(c) Curriculum Content.— In addition to the subjects specified in section 2151 (a) of this title, the curriculum for Phase II joint professional military education shall include the following:

(1) National security strategy.
(2) Theater strategy and campaigning.
(3) Joint planning processes and systems.
(4) Joint, interagency, and multinational capabilities and the integration of those capabilities.

(d) Student Ratio; Faculty Ratio.— Not later than September 30, 2009, for courses of instruction in a Phase II program of instruction that is offered at senior level service school that has been designated by the Secretary of Defense as a joint professional military education institution—

(1) the percentage of students enrolled in any such course who are officers of the armed force that administers the school may not exceed 60 percent, with the remaining services proportionally represented; and

(2) of the faculty at the school who are active-duty officers who provide instruction in such courses, the percentage who are officers of the armed force that administers the school may not exceed 60 percent, with the remaining services proportionally represented.

§ 2156. Joint Forces Staff College: duration of principal course of instruction

(a) Duration.— The duration of the principal course of instruction offered at the Joint Forces Staff College may not be less than 10 weeks of resident instruction.

(b) Definition.— In this section, the term "principal course of instruction" means any course of instruction offered at the Joint Forces Staff College as Phase II joint professional military education.

§ 2157. Annual report to Congress

The Secretary of Defense shall include in the annual report of the Secretary to Congress under section 113 (c) of this title, for the period covered by the report, the following information (which shall be shown for the Department of Defense as a whole and separately for the Army, Navy, Air Force, and Marine Corps and each reserve component):

(1) The number of officers who successfully completed a joint professional military education Phase II course and were not selected for promotion.

(2) The number of officer students and faculty members assigned by each service to the professional military schools of the other services and to the joint schools.

Appendix C

School of Advanced Military Studies
Monographs 1992-2002

ID #	Service / Country	AY	Monograph Title	ROMO Value
1	USA	1992	Peeling the onion: The Iraqi center of gravity in Desert Storm	2
2	USA	1992	American way of operational art: Attrition or maneuver?	2
3	USA	1992	Joint/combined information bureau: Is it credible and properly resourced?	5
4	USA	1992	Is getting there half the battle? Considerations for deployment of forces.	2
5	USA	1992	Snapping the Achilles' Heel: The counterlogistics fight.	7
6	USA	1992	Reporting live from-: Planning principles for war in the information age.	5
7	USA	1992	Army contingency forces: What should they be?	27
8	USA	1992	Knowledge is the key: Educating, training, and developing operational artists for the 21st century.	26
9	USA	1992	Operation Provide Comfort: A model for future NATO operations.	14
10	USMC	1992	Art of war in transition?	2
11	USA	1992	Operational art and the continuum.	29
12	USA	1992	Iranian operational warfighting ability: An historical assessment and view to the future.	2
13	USA	1992	Counternarcotics campaign planning: A basis for success or a malaise for the military?	13
14	USMC	1992	Does FMFM 1-1 provide adequate guidance to understand campaign planning?	2
15	USA	1992	American OMG? The air assault division employed as an operational	2

(continued)

Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
			maneuver group.	
16	USMC	1992	Norway airlanded MEB's role in crisis response for the 1990's.	2
17	USA	1992	Grant's final campaign: Intelligence and communications support.	2
18	USA	1992	Operational operating systems as an analytical tool: A look at the 1862 Peninsula campaign.	2
19	USA	1992	Evolving joint space campaign concept and the Army's role.	10
20	USA	1992	Strategic-operational command and control in the American Civil War.	2
21	USA	1992	War termination: Theory, doctrine, and practice.	28
22	USA	1992	Do the CINCs still have a job? Operational command in operations short of war.	28
23	USA	1992	Standing joint task forces: A way to enhance America's warfighting capabilities?	3
24	USA	1992	Role of United States based contingency forces in operations to restore order.	12
25	USA	1992	Operational commander's role in planning and executing a successful campaign.	2
26	USA	1992	Avoiding surprise: The role of intelligence collection and analysis at the operational level of war.	2
27	USA	1992	Host nation support and civilian contracting: Don't try fighting without it	27

(continued)

Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
28	USA	1992	Peacemaking and operational art: The Israeli experience in operation "Peace for Galilee."	19
29	USAF	1992	What do we do now? Air power use after gaining air superiority.	2
30	USA	1992	"There's no place like home." Considerations for the redeployment of a corps.	27
31	USA	1992	Economic foundations of operational art.	29
32	USMC	1992	Forcible entry in a major regional contingency: The operational planner's worst nightmare?	3
33	USA	1992	Interagency cooperation in the war on drugs: Can campaign planning be the unifying factor?	13
34	USA	1992	Silent killer: Grant's logistical requirements, 1864-1865.	2
35	USA	1992	Establishing theater command and control in a coalition of nations: Requirements for U.S. doctrine.	2
36	USA	1992	Operational reserves: Still valid after all these years?	2
37	USA	1992	T. E. Lawrence: Theorist and campaign planner.	4
38	USA	1992	Raids at the operational level - to what end?	3
39	USA	1992	1994 Louisiana maneuvers: Is back to the future what our army needs?	2
40	USMC	1992	Naval support to Grant's campaign of 1864-65: By design or by coincidence?	7
41	USA	1992	Civil reserve air fleet...a viable strategic airlift asset in the year 2000?	2
42	USA	1992	Peacemaking: Implications for the US Army.	19

(continued)

Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
43	USA	1992	Blitzkrieg: operational art or tactical craft?	2
44	USA	1992	Firepower, maneuver, and the operational level of war.	2
45	USA	1992	Relationship between war and peacekeeping.	21
46	USAF	1992	Defensive air strategies.	2
47	USAF	1992	Concept of center of gravity: Does it have utility in joint doctrine and campaign planning?	2
48	USA	1992	Operational vision: the way means reach the end.	2
49	USA	1992	Peacetime engagement: beating swords into plowshares?	28
50	USA	1992	Noncombatant evacuation operations in support of the national military strategy.	6
51	USA	1992	What to do, what to do? Determining a course of action at the operational level of war.	27
52	USA	1992	For the duration: the lessons of protracted conflict.	2
53	USA	1992	Corps in the JTF role.	2
54	USA	1992	Power projection -- the need for operational deployment doctrine.	27
55	USA	1992	Back azimuth check: A look at Mongol operational warfare.	2
56	USA	1992	Does the Army have a peacekeeping doctrine for the 1990s?	21
57	USA	1992	Operational art on the Italian Front during the Great War.	2
58	USA	1992	Generating the force: The roundout brigade.	27

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ID #	Service / Country	AY	Monograph Title	ROMO Value
59	USA	1992	U.S. Army command and control at the operational level: Where do we go from here?	2
60	USA	1992	Role of the media in the operational deception plan for Operation Desert Storm.	5
61	USA	1992	NO DATA	
62	USA	1992	American art: Toward an American theory of peace.	29
63	USN	1992	Examination of the United States Navy's ability to conduct operational fires.	2
64	USA	1993	Quick decisive victory: The search for the Holy Grail.	2
65	USMC	1993	Directed megaphone: a theater commander's means to communicate his vision and intent.	2
66	USA	1993	Operational defense: covering all the bases.	2
67	USA	1993	Overwhelming force, indecisive victory: The German invasion of Yugoslavia, 1941.	2
68	USA	1993	Early operational art: Nathanael Green's Carolina Campaign 1780-1781.	2
69	USA	1993	Operation Just Cause: an application of operational art?	2
70	USA	1993	Soviet-Finnish War, 1939-1940: Getting the doctrine right.	2
71	USA	1993	Defense campaigns: Are they still the stronger form of war?	2
72	USA	1993	Threat theory: A model for forecasting the threat environment of the future.	27

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ID #	Service / Country	AY	Monograph Title	ROMO Value
73	USA	1993	Coping with Mass Destruction: United States Power Projection in the nuclear and chemical third world	1
74	USA	1993	Humanitarian assistance and the elements of operational design.	14
75	USA	1993	Mind over machine: Why doctrine should lead technological change.	2
76	USA	1993	American general staff: An idea whose time has come?	27
77	USA	1993	Air commander control of Army deep fire assets.	2
78	USA	1993	Operational encirclement: Quick decisive victory or a bridge too far?	2
79	USA	1993	United States Army Special Forces: Versatile element in the future security environment.	4
80	USA	1993	Army contingency forces and Marine Corps expeditionary forces: Unique or redundant?	2
81	USAF	1993	Clausewitz at Mach II--has classical military theory kept pace with technology?	2
82	USA	1993	Fall of South Vietnam: An analysis of the campaigns.	2
83	USA	1993	Lee builds an Army: From Malvern Hill to Second Manassas.	2
84	USA	1993	Military campaign against gangs: Internal security operations in the United States by active duty forces.	12
85	USA	1993	Fire Support Coordination Line: Should it delineate area responsibilities between air and ground commanders?	2
86	USA	1993	Logistics distribution: Key to operational success.	7

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ID #	Service / Country	AY	Monograph Title	ROMO Value
87	USA	1993	Mexican War and its place in the evolution of operational art.	2
88	USA	1993	Claire Lee Chennault: Theorist and campaign planner.	2
89	USA	1993	Modern scientific metaphors of warfare: Updating the doctrinal paradigm.	29
90	USA	1993	Exploring the conditions for decisive operational fires.	2
91	USAF	1993	Peace-enforcement: Mission, strategy, and doctrine.	19
92	USA	1993	Mass: evolving tool of the U.S. operational artist.	2
93	USA	1993	Towards an integrated campaign plan: The use of political, economic, and military elements of national power at the operational level of war.	2
94	USA	1993	Army National Guard: meeting the needs of the National Military Strategy.	27
95	USA	1993	Operational leadership and United States Army leadership doctrine: Forging the future today.	29
96	USA	1993	Air occupation: A viable concept for campaign planning.	16
97	USA	1993	Reconstitution of the base force of 1995: Plan or placebo?	27
98	USA	1993	Elevating the shield of blows: Theater missile defense for the twenty-first century.	10
99	USAF	1993	Air Force composite wings - future success or failure?	27
100	USA	1993	Irregular warfare in the conventional theater: An operational perspective.	4

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ID #	Service / Country	AY	Monograph Title	ROMO Value
101	USA	1993	Integration, interoperability and coalition warfare in the New World Order.	2
102	USA	1993	Evolution of operational art: A never ending story.	2
103	USA	1993	Force projection: C3 planning sets the conditions for follow-on force success.	2
104	USA	1993	Coalition command and control: Essential considerations.	2
105	USA	1993	Combat service support at echelons above corps: The doctrinal challenge.	2
106	USA	1993	Quick decisive victory - wisdom or mirage?	2
107	USAF	1993	Operational lessons from the dawn of air power.	2
108	USA	1993	Leadership of the operational commander: Combat multiplier or myth?	2
109	USA	1993	Joint Task Force headquarters in contingency operations	2
110	USA	1993	Quick, decisive victory: Defining maxim or illusory concept within Army doctrine.	2
111	USA	1993	Identification of decisive terrain: Useful concept or historical label?	2
112	USA	1993	Postwar Army and the loss of operational art: Could it happen again?	2
113	USA	1993	Operational art in the Sioux War of 1876.	2
114	USA	1993	Do the operational operating systems (OOS) offer an adequate framework for the synchronization of combat power at the operational level?	2

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ID #	Service / Country	AY	Monograph Title	ROMO Value
115	USA	1993	Military support to domestic disaster relief doctrine for operating in the wake of the enemy?	11
116	USAF	1993	Serial vs. parallel war: An airman's view of operational art.	2
117	USA	1993	Energizing the trinity: Operational implications of warfare in the age of information technology.	5
118	USA	1993	Amphibious operations in the 21st century: A viable forced-entry capability for the operational commander?	3
119	USMC	1993	Deterrent value of US Army doctrine: The active defense and Airland battle in Soviet military thought.	2
120	USA	1993	Airborne force role in operational maneuver.	2
121	USA	1993	US Division in an allied corps.	2
122	USA	1993	Peacekeeping in Europe: How can the United Nations do it?	21
123	USA	1993	In pursuit of the endstate - what's all the fuss?	2
124	USA	1993	German invasion of Yugoslavia: Insights for crisis action planning and operational art in a combined environment.	2
125	USA	1994	Greek Civil War, 1947 - 1949: Lessons for the operational artist in foreign internal defense.	23
126	USA	1994	Operational leader development: Fostering the institutionalization of intellectual innovation.	26

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ID #	Service / Country	AY	Monograph Title	ROMO Value
127	USA	1994	Requiem for a heavyweight? Mid-intensity conflict and the Army's ability to fight and win the nation's operations other than war.	2
128	USA	1994	Who's zooming who? Joint doctrine and the Army - Air Force debate over the FSCL.	2
129	USA	1994	Operation synchronization; maintaining the decisive advantage.	2
130	USA	1994	Operational logic and identifying Soviet operational centers of gravity during Operation Barbarossa, 1941.	2
131	USA	1994	How big is the canvas for operational art?	28
132	USMC	1994	Shoot? Don't shoot? Rules of engagement in peacekeeping operations.	21
133	USA	1994	Interagency process in regional foreign policy.	29
134	USA	1994	Operational sequencing: The tension between simultaneous and sequential operations.	2
135	USA	1994	Dynamic Synchronization Matrix: An automated decision support tool for the campaign planning staff.	2
136	USA	1994	Operational staff: Keeping pace with change?	27
137	USA	1994	Operational Carlotta: Analyzing courses of action.	29
138	USA	1994	Media and the U.S. Army: You don't always get what you want; you may just get what you need.	5
139	USA	1994	Joint Pub 1: A solid doctrinal cornerstone or Jello pudding?	27
140	USA	1994	Supply Usage Requirements Estimator (SURE) Version 2.0.	27

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141	USAF	1994	Campaign planning for peace enforcement operations.	19
142	USA	1994	Intelligence preparation of the future operational battlefield.	28
143	USA	1994	Structuring for command and control of combined forces in operations other than war.	28
144	USAF	1994	Campaign planning: Considerations for attacking national command and control.	28
145	USA	1994	Joint operational targeting: Who's in charge: CINC, JFACC or JTCB?	2
146	USA	1994	Joint campaign design: Using a decide-detect-attack (DDA) methodology to synchronize the joint force's capabilities against enemy centers of gravity.	2
147	USA	1994	Media and the operational commander: A shotgun marriage.	5
148	USA	1994	Simultaneous operations: The airborne force has a major role, but is it capable?	2
149	USA	1994	Permissive or restrictive: Is there a need for a paradigm shift in the operational use of the fire support coordination line?	2
150	USA	1994	Contingency operation logistics: USTRANSCOM's role when less must be more.	27
151	USA	1994	NO DATA	
152	USAF	1994	Desert Storm's siren song; examining revolution in warfare.	2
153	USA	1994	Non-linear operations: A new doctrine for a new era.	28

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ID #	Service / Country	AY	Monograph Title	ROMO Value
154	USA	1994	Course of action development in support of campaign planning.	28
155	USA	1994	Fire support coordination line-a concept behind its times?	2
156	USA	1994	Operational battle command: Lessons for the future.	2
157	USA	1994	Light armor in deep operational maneuver: The new Excalibur?	2
158	USA	1994	Blainey and the Bottom-up Review: Increased potential for miscalculation and war in the 21st century.	27
159	USA	1994	Organizing for war: Past and present.	27
160	USA	1994	Nature of war and campaign design.	29
161	USA	1994	Thirteenth century Mongol warfare: Classical military strategy or operational art?	2
162	USA	1994	Beans, bullets and band-aids: Attaining unity of effort in humanitarian intervention operations.	14
163	USMC	1994	United States Marine Corps and the operational level of war.	27
164	USA	1994	Combat search and rescue: A lesson we fail to learn.	6
165	USA	1994	Panama: Military victory, interagency failure: a case study of policy implementation.	29
166	USAF	1994	US Air Force air campaign planning: Paying the bills or paying the price?	27
167	United Kingdom	1994	What are the security implications of the expansion of the European Union to include the Visegrad nations?	22

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168	USA	1994	Operational art in the Spanish American War: An analysis of the American way of war in a major regional contingency.	2
169	USA	1994	Ia Drang campaign 1965: A successful operational campaign or mere tactical failure.	29
170	USA	1994	Electromagnetic spectrum domination: 21st century center of gravity or Achilles heel.	5
171	USA	1994	"Talk'n ain't fight'n" synchronization and the Joint Task Force training process.	27
172	USA	1994	Operation Urgent Fury: Operational art or a strategy of overwhelming combat power?	2
173	USA	1994	Pentomic doctrine: A model for future war.	2
174	USA	1994	Crisis and opportunity of information war.	5
175	USA	1994	Wavell's campaigns in the Middle East: An analysis of operational art and the implications for today.	29
176	USA	1994	Peacekeeping and FM 100-5: Do they match?	21
177	USA	1994	Changing the campaign plan in midstream: Deciding whether to cancel an operation.	2
178	USA	1994	Soldier, statesman, scholar: A study of strategic generalship.	27
179	USA	1994	Art of war, nonlinearity and, coping with uncertainty.	28
180	USA	1994	Battle of Warsaw, 1920: Impact on operational thought.	2
181	USA	1995	Operational battle command: The doorway to versatility.	2

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182	USA	1995	Humanitarian assistance response ready forces.	14
183	USA	1995	What is relative about combat power?	2
184	USA	1995	Overcoming the 'ad hoc' nature of the joint or combined task force headquarters.	27
185	USA	1995	Joint issue: The challenge of synchronizing firepower at the operation level.	2
186	USA	1995	In the line of fire - peacekeeping in the Golan Heights.	21
187	USA	1995	Operational decision to execute gaps in operations other than war: ceding the information initiative.	5
188	USA	1995	Army... From the Sea, the Army's initiative to enhance operational agility.	2
189	USAF	1995	Is the U.S. prepared to execute operational space control?	10
190	USA	1995	Model of insurgency: reflections of Clausewitz's 'paradoxical trinity' Lessons for operational planners considering conventional forces in unconventional operations.	17
191	USA	1995	U.S. Army intelligence in support of 100-hour war: Fact or fiction/myth or reality?	2
192	USA	1995	Operational command and control for joint and component commands: Integration or duplication?	2
193	USMC	1995	Vertical and horizontal cohesion: Combat effectiveness and the problem of manpower turbulence.	27
194	USA	1995	On lines of operations: A framework for campaign design.	27

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195	USA	1995	Operational logistics, war and operations other than war: What applies?	27
196	USA	1995	Information operations: A look at emerging Army doctrine and its operational implications.	5
197	USA	1995	Intelligence and the defensive culminating point--piercing the fog.	2
198	USA	1995	Operational communications: What does it take?	2
199	USA	1995	Joint fire support: How to achieve unity of effort.	2
200	USA	1995	Standing at the gates of the city: Operational level actions and urban warfare.	2
201	USA	1995	Broken stiletto: Command and control of the joint task force during Operation Eagle Claw at Desert One.	3
202	USA	1995	Urban anatomy: The fundamentals of a city.	2
203	USA	1995	Operational art and military operations on urbanized terrain.	2
204	USA	1995	Problems of peacetime innovation: The development of US Army antiaircraft artillery during the interwar period -- a case study in preparing the army for the future.	27
205	USA	1995	JFLCC: The first step.	2
206	USA	1995	Command and control warfare in forced entry operations.	3
207	USA	1995	Knowledge-Based Operations: The 'so what' of information warfare.	5

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208	USA	1995	Cuba: A strategic analysis and its implications on military planning.	29
209	USA	1995	Full-dimension operations planning constructs: thinking 'out of the box' for the 21st century.	29
210	USA	1995	Building a campaign: The essential elements of operational design.	2
211	USA	1995	Desert Storm: Attrition or Maneuver	2
212	USA	1995	Stuck in the middle: The operational art of peace enforcement.	19
213	USA	1995	Organizing anarchy: planning for refugee support operations.	14
214	USA	1995	Force XXI and the American way of war.	2
215	USA	1995	Military ascendancy, civilian disinterest: Contemporary civil-military relations in America.	27
216	USA	1995	Operational deception: U.S. joint doctrine and the Persian Gulf War.	2
217	USA	1995	Centers of gravity in OOTW: A useful tool or just a black hole?	28
218	USA	1995	Rethinking the Bottom-Up Review: Flawed assumptions of future warfighting?	27
219	USA	1995	Plus ca change, plus c'est la meme chose (the more things change, the more they stay the same): The difficulty in increasing operational movement rates.	2
220	USA	1995	Planning the peace: Operation Eclipse and the occupation of Germany.	21
221	USA	1995	Vietnam: A hiatus for the operational art?	2

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222	USA	1995	Concepts of information warfare in practice: General George S. Patton and the Third Army Information Service, August-December, 1944.	5
223	USA	1995	Commander's intent: Its evolution in the United States Army.	27
224	USA	1995	Strategic lift: Can the United States conduct two nearly-simultaneous major regional contingencies?	2
225	USAF	1995	Battlespace: Synergizing the campaign.	2
226	USA	1995	Truth and consequences: The debate on homosexuals in the military.	27
227	USA	1995	MOUT art: Operational planning considerations for MOUT.	2
228	USN	1995	Blockades and cyberblocks: In search of doctrinal purity. Will maritime interdiction work in information age warfare?	5
229	USA	1995	Enemy course of action prediction: Can we, should we?	28
230	USA	1995	Joint Task Force Support Hope: Lessons for power projection.	14
231	USA	1995	Implications of weapon system replacement operations at the operational level of war.	2
232	USAF	1995	Out of the web and into the revolution: A perspective of strategic airpower in the information age.	2
233	USN	1995	Operational theater mine countermeasures plan: More than a Navy problem.	2

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234	USA	1995	Cloud patterns: An operational hierarchy?	2
235	USMC	1995	Peacekeeping, peace enforcement, and the operational art.	28
236	USA	1995	Indian Army in Africa and Asia, 1940-42: Implications for the planning and execution of two nearly-simultaneous campaigns.	2
237	USA	1995	Thor's hammer: An aviation strike force in deep operational maneuver.	2
238	USA	1995	Power projection logistics: What theater support unit?	27
239	USA	1995	Educating the media on operational matters.	26
240	USMC	1995	False prophets: The myth of maneuver warfare and the inadequacies of FMFM-1 Warfighting.	2
241	USA	1995	Rome's German frontier: Peace enforcement precursor or paradigm?	19
242	USAF	1995	USAF and technological asymmetry: A critique of current air power theory and doctrine.	27
243	USA	1995	Strategic lift: Can the United States conduct two nearly-simultaneous major regional contingencies?	2
244	USA	1995	UN Chapter VI operations in Cyprus and Lebanon.	21
245	USA	1996	'Mission creep': A case study in U.S. involvement in Somalia.	19
246	USA	1996	Synchronizing maneuver and interdiction in joint operations.	2
247	USA	1996	Operational liaison in combined operations: Considerations and procedures.	28

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248	USMC	1996	Force projection operations: Lessons from amphibious warfare doctrine.	2
249	USA	1996	Attack aviation in dismounted operations.	2
250	USA	1996	Can the United States be involved in simultaneous 'contemporary peacekeeping' operations and maintain the flexibility to respond to two, nearly-simultaneous major regional conflicts (MRCs)?	28
251	USA	1996	Distributed concentration: Rethinking decisive battle.	2
252	USA	1996	Preserving victory: The American Civil War, the United States Army, and the Ku Klux Klan.	17
253	USA	1996	Single flexible, rigorous decision making process.	29
254	USA	1996	Strategic use of military force: Was the strategic use of force in the late 19th and the early 20th century a model for the U.S. Army and operations other than war?	28
255	USA	1996	Coping with change: operational art and Force XXI.	2
256	USA	1996	Environmental scarcity as a cause of violent conflict.	29
257	USA	1996	Tracing the evolution of the Civil Military Operations Center (CMOC) in the 90s: What is the best model?	11
258	USA	1996	NATO in the 1990s: An assessment of the literature.	25
259	USA	1996	Army Airspace Command and Control (A2 C2) and the Contingency Tactical Air Control System Automated Planning System (CTAPS): Is there a joint method to this parochial	27

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			madness?	
260	USA	1996	Operational level interdiction: Joint or dis-jointed operations?	2
261	USA	1996	Information--the fifth element of combat power.	5
262	USA	1996	Infrastructure, the fourth element of strategic mobility.	27
263	USA	1996	Power of operational art's requirements.	28
264	USA	1996	Learning under fire: Training an army while at war.	26
265	USA	1996	Non-military agencies in campaign planning.	29
266	USA	1996	Current interwar years: Is the Army moving in the correct direction?	27
267	USA	1996	Learning organizations and operational-level leadership.	29
268	USAF	1996	JTF staffs: Permanent or temporary level of command?	27
269	USA	1996	Flatlanders in the 21st century: Organizational compression in the information age.	5
270	USA	1996	Marine air-ground task force: A model for future U.S. Air Force and U.S. Army operations.	2
271	USAF	1996	Joint targeting and the Joint Target Coordination Board: Let's fix the current doctrine!	2
272	USA	1996	Force XXI: What are the risks of building a high tech, narrowly focused Army?	2
273	USA	1996	Change of plans.	28

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274	USA	1996	Developing the theater level aerial port of debarkation, organization and structure.	27
275	USA	1996	Seeking order in the confusion of Bosnia: Does center of gravity apply?	21
276	USN	1996	Fall and rise and coercive diplomacy in the Balkans.	16
277	USA	1996	Defining the operational end state: Operation Desert Storm.	2
278	USA	1996	Catastrophic collapse of North Korea: Implications for the United States military.	14
279	USA	1996	Digitization of the battlefield: Operational implications for the U.S. Army in multinational operations.	5
280	USA	1996	Terrain and intelligence collection.	27
281	USA	1996	Making organizations talk: An assessment of military-interagency interoperability.	14
282	USA	1996	Joint Force Commander (JFC) - warfighter or battlefield manager?	2
283	USA	1996	Objects in mirror are closer than they appear: Population growth and the U.S. Army.	29
284	USAF	1996	Effective planning of joint air operations.	2
285	USA	1996	Army Global Prepositioning Strategy: A critical review.	27
286	USA	1996	Military instrument of power in small wars: The case of El Salvador.	28
287	USA	1996	Networking the commander and joint battle staff of a joint task force.	28

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288	USA	1996	Merchants of Mesopotamia and the causes of the Persian Gulf War.	2
289	USA	1996	U.S. Army special operations forces as providers of human intelligence in humanitarian assistance operations.	14
290	USA	1996	Establishing and sustaining refugee camps: Planning for renewed life.	14
291	USA	1996	Small view of war: Toward a broader FM 100-5.	28
292	USA	1996	U.S. doctrine for command and control of operational fires.	2
293	USA	1996	Force XXI versus an unconventional warfare threat.	4
294	USA	1996	Future conflict: Force XXI against the asymmetric opponent.	2
295	USA	1996	Facilitating joint operations: the evolving battlefield coordination element.	2
296	USMC	1996	Shrinking the JTF staff: Can we reduce the footprint ashore?	27
297	USA	1997	Force XXI precision engagement: The need for a Joint Force Fire Coordinator.	2
298	USA	1997	Answer is? Friction over who should plan & control joint fires beyond the FSCL.	2
299	USA	1997	NO DATA	
300	USA	1997	Doctrinal dogma: A comparison of offensive operations between FM 100-5 (Draft) and Joint Pub 3-0.	2
301	USA	1997	Campaign planning: A doctrinal assessment through the study of the Japanese campaign of 1942.	2
302	USA	1997	Meeting the U.S. Army's Service Component Command (ASCC)	19

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			requirements for peace enforcement operations.	
303	USA	1997	Protection against terrorism: Does the 1998 FM 100-5 say enough?	8
304	USA	1997	Protecting mechanized forces from smart weapon attack.	2
305	USA	1997	Operational art in classical warfare: The campaigns of Alexander the Great.	2
306	USA	1997	Future of planning in a changing world.	29
307	USA	1997	Role of impartiality in peace operations.	28
308	USA	1997	First principles: the foundation of twenty-first century army operations.	27
309	USA	1997	Are current psychological operations procedures adequate in information warfare?	5
310	USN	1997	Naval forces as the holding force in a win-hold-win strategy.	2
311	USA	1997	Interagency cooperation: FEMA and DOD in domestic support operations.	11
312	USA	1997	Operations with NGOs, the "international army of the future".	24
313	USA	1997	Common understanding of conflict: the doctrinal relationship of FM 100-5 (Coordinating Draft) and joint doctrine.	27
314	USA	1997	Principles of …? Assessment of FM 100-5's principles of – operations.	27
315	USA	1997	Case for including air power in the 1998 FM 100-5, operations.	27
316	USA	1997	Core functions: Useful concept for Army planning.	28

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317	USAF	1997	Converging vectors: Comparing emerging Army and Air Force basic doctrine.	28
318	USA	1997	Forging the fighting spirit: The operational commander's role in rebuilding combat effectiveness.	2
319	USAF	1997	Toward a theory of insurgent airpower.	17
320	USA	1997	Setting the moral tone in operational level commands.	29
321	USA	1997	Defining Joint Vision 2010's dominant maneuver.	2
322	USA	1997	Information revolution and the environment of future conflict.	5
323	USA	1997	Campaign planning: An effective concept for military operations other than war.	28
324	USA	1997	Fighting with one hand tied: Constraints on force in the Post Cold War era.	28
325	USMC	1997	Fire support uncoordination line.	2
326	USA	1997	Express lanes and potholes of the information superhighway: The internet and the operational planner.	5
327	USMC	1997	OMFTS: Innovative concept but can we support it with fires.	2
328	USA	1997	Uncle Sam deploys to Bosnia: United States national security interest in Bosnia.	19
329	USA	1997	Principles of failure: Mao Tse-Tung's insights on planning military interventions.	2
330	USA	1997	New FM 100-5: A return to operational art.	27

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331	USAF	1997	Attacking the enemy's will: The dangers of making conflict planning too simple.	28
332	USA	1997	USFK after the reunification.	28
333	USAF	1997	Toward greater cooperation? FM 100-5 and AFDD 1.	27
334	USA	1997	Meeting combatant commanders' needs: The National Training Center as a case study.	2
335	USA	1997	Ending the legacy of war: Long-term solutions to humanitarian demining in peace operations.	28
336	USA	1997	Joint logistics at the operational level - where are we at and where are we going?	27
337	USA	1997	Information operations - a new tool for peacekeeping.	28
338	USA	1997	Intelligence planning for airborne operations: A perspective from Operation Market-Garden.	2
339	USA	1997	Nested concepts: implementing commander's vision and securing unity of effort.	28
340	USAF	1997	Reinventing the airman: using the next generation of PGMs as a catalyst for change.	2
341	USA	1997	Needle in a haystack: Hunting mobile theater missiles on the battlefield.	10
342	USA	1997	From the sea: Operational reach and sustainment.	2
343	USA	1997	Cost-benefit calculation model: Is it a useful tool to analyze war termination.	2
344	USMC	1997	Operational implications of the forward-deployed MAGTF in a joint environment.	28

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ID #	Service / Country	AY	Monograph Title	ROMO Value
345	USA	1997	En la boca del lobo - in the mouth of the wolf: The US Military and the drug war in Peru.	13
346	USA	1997	National Guard combat divisions: State militia or federal muscle force structure mix?	27
347	USA	1997	General George S. Patton, Jr.: Master of operational battle command. What lasting battle command lessons can we learn from him?	2
348	USA	1997	Model for inter-agency coordination during military operations.	29
349	USA	1997	Information and the future of battle command.	5
350	USA	1997	Theater engineer support and the theater support command.	27
351	USA	1997	Operational issues of insurgency/counter insurgency: The Maccabean revolt.	17
352	USA	1997	Operational art and intelligence: What is the relationship?	28
353	USA	1997	Operational raids during the Civil War: Are they relevant today?	3
354	USA	1997	NO DATA	
355	USA	1997	South Korea: Are new methods more amenable to new interest?	22
356	USA	1997	Limiting casualties: Imperative or constraint?	28
357	USA	1997	Water and conflict in the Middle East.	2
358	USA	1998	Pegasus, the dragon and air power: Winged myths?	2
359	USA	1998	School of Advanced Military Studies in the 21st century.	26

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ID #	Service / Country	AY	Monograph Title	ROMO Value
360	USA	1998	Bosnia: Does Force XXI technology solve the operational logistic problems in Operations Other Than War?	27
361	USA	1998	Changing the U.S. national and defense strategies and other initiatives to combat competitive intelligence operations against the U.S.	29
362	USA	1998	Stuff that binds: On the nature and role of information in military operations.	5
363	USA	1998	Back to the future: The British Southern Campaign, 1780-1781.	17
364	USA	1998	Intifada and the blood of Abraham. "Lessons in asymmetrical warfare--written in stone".	17
365	USA	1998	Where should I be? The operational commander in 2010: Effective positioning in conflict and planning.	2
366	USA	1998	Operational art in operations other than war.	28
367	USA	1998	War of perceptions: Integrating information operations into peacekeeping plans.	28
368	USA	1998	Search for stability in Sub-Saharan Africa an American perspective.	28
369	USA	1998	RSOI: Force deployment bottleneck.	27
370	USA	1998	Leadership vacuum: U.S. actions in the South China Sea dispute.	29
371	USA	1998	Defining nature: Evolving intelligence preparation of the battlefield to build a theoretical construct for the multi-media operational environment.	28

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ID #	Service / Country	AY	Monograph Title	ROMO Value
372	USA	1998	Special forces integration with multinational division-north in Bosnia-Herzegovina.	4
373	USA	1998	Patton, Third Army and operational maneuver.	2
374	USA	1998	Mine is a terrible thing to waste: The operational implications of banning anti-personnel landmines.	2
375	USA	1998	NATO enlargement - an evaluation of the security implications.	25
376	USA	1998	Air Assault Division. Is it a viable strategic contingency force for the twenty-first century?	2
377	USAF	1998	Further tactical nuclear weapons reductions in Europe: The next challenge for arms control.	25
378	USA	1998	Campaign of ropes. An analysis of the Duke of Wellington's practice of military art during the Peninsular War, 1808 to 1814.	28
379	USA	1998	NO DATA	
380	USA	1998	Joint opportunity gone awry: The 1740 Siege of St. Augustine.	2
381	USA	1998	Counterterrorism and operational art.	8
382	USN	1998	Breaking the phalanx? An examination of Colonel Douglas A. MacGregor's proposals regarding U.S. naval aviation.	9
383	USA	1998	Implementing signal support principles on the battlefield of the future.	5
384	USN	1998	Operational art and the 1813 campaign in Germany.	2
385	USA	1998	Information operations: A joint perspective.	5

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ID #	Service / Country	AY	Monograph Title	ROMO Value
386	USA	1998	Operational leadership – what is it?	29
387	USA	1998	Operations other than war--Albatross or twenty-four hour flu on force readiness.	28
388	USA	1998	Power projection of an army corps by C+75 - on target or wishful thinking?	2
389	USA	1998	C-17: How to get more for less.	27
390	USA	1998	Operational-level deep operations: A key component of operational art and future warfare.	2
391	USA	1998	Strategic bombing - a decisive military force?	2
392	USMC	1998	Goldwater-Nichols Act: An assessment of the Marine Corps' response.	27
393	USA	1998	U.S. and Australian relationship into the twenty-first century.	25
394	USAF	1998	Reengineering the doctrinal latticework of military space.	10
395	USA	1998	Strategic utility of the United States Army Light Infantry.	27
396	USA	1998	Peace operations: A mission essential task?	28
397	USA	1998	Mao Tse-Tung and operational art during the Chinese civil war.	2
398	USA	1998	Forsaken bond: Operational art and the moral element of war.	27
399	USA	1998	Just-in-case or just-in-time. Total asset visibility and just-in-time distributions impact on future Class IX repair parts operations in US Army COSCOMS and DISCOMS.	27

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ID #	Service / Country	AY	Monograph Title	ROMO Value
400	USA	1998	Battle command in the storm: Lieutenant General Franks and VII Corps.	2
401	USA	1998	Planning and end state: Has doctrine answered the need?	2
402	USMC	1998	Joint Force Air Component Commander and maneuver warfare: Are they compatible?	2
403	USA	1998	Coordinating operational fires for the twenty-first century.	2
404	USA	1998	Media: An influence on U.S. foreign and military policy by any other means.	5
405	USA	1998	Avoiding Agincourt - Restructuring command and control for the 21st century.	27
406	USA	1998	Eliminating the division in favor of a group-based force structure: Should the U.S. Army break the phalanx?	27
407	USA	1998	Relationship among tasks, centers of gravity, and decisive point.	29
408	USA	1998	VII Corps and operational art.	2
409	USAF	1998	Domestic information warfare: The Department of Defense's role in the civil defense of the national information infrastructure.	5
410	USA	1998	Innovator or imitator: Napoleon's operational concepts and the legacies of Bourcet and Guibert.	2
411	USAF	1998	Future of fixed-wing close air support: does the Army need it to fight?	2
412	USA	1998	Future of war: Is operational art now impossible?	2

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ID #	Service / Country	AY	Monograph Title	ROMO Value
413	USA	1998	Domestic preparedness and the WMD paradigm	11
414	USA	1998	Can operational art occur in military operations other than war?	28
415	USA	1998	Yin and Yang: the relationship of Joint Vision 2010's concepts of dominant maneuver and precision engagement.	2
416	USAF	1998	Air Reserve component meeting the demands of the 1990's.	27
417	Norway	1999	Arctic security issues 2000.	29
418	USAF	1999	No illusions: the role of air strikes in coercive diplomacy.	3
419	USA	1999	Provide for the common defense: The President bypasses Congress.	29
420	USAF	1999	Is the Expeditionary Aerospace Force the right approach for the Air Force as we enter the 21st century?	27
421	USA	1999	Leap-ahead logistics management technology: Turning the evolution in military logistics into a true revolution.	27
422	USA	1999	Russian deception operations: Another tool for the kit bag.	2
423	USN	1999	Collaboration tools for crisis action planners: An evaluation of Microsoft Office 2000.	27
424	USA	1999	Army information centers of gravity: Can we protect them?	5
425	USA	1999	Joint logistics command -- is it needed?	27
426	USMC	1999	U.S. Army Strike Force – a relevant concept?	27

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ID #	Service / Country	AY	Monograph Title	ROMO Value
427	USA	1999	21st century combat and the operational logistics link.	27
428	USA	1999	NO DATA	
429	USA	1999	Structure of doctrinal revolution in the U.S. Army from 1968 to 1986.	26
430	USA	1999	Decisive operations: Defined.	27
431	Canada	1999	Joint operations in Canada: Necessary or merely fashionable.	27
432	USA	1999	Strike force leader: Jack of all trades, master of all trades.	26
433	USA	1999	Assessment of the IPB process at the operational level.	29
434	USA	1999	Creating a Department of Defense Strategic Information Support Center.	5
435	USAF	1999	Endgame in the Pacific: Complexity, strategy and the B-29.	2
436	USA	1999	Interim Strike Force Headquarters digital LNO nodes: Force tailoring enablers.	27
437	USAF	1999	Stealth, the end of dedicated electronic attack aircraft.	27
438	USA	1999	Dominant maneuver, a manifestation of focused logistics.	28
439	USA	1999	3D Armored Cavalry Regiment as an operationally significant force.	2
440	USA	1999	Wizards of chaos and order: A theory of the origins, practice, and future of operational art.	2
441	USA	1999	NATO's Combined Joint Task Force concept--viable tiger or a paper dragon.	26
442	USA	1999	Past revisited: Comparing and contrasting the Army After Next's	27

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			Battle Force to the Pentomic Division.	
443	USA	1999	Light infantry battalion-and-below battle command in the early twenty-first century: What advanced C41 capabilities are required and which enabling technologies are not being developed.	27
444	USA	1999	Future of modular logistics in force projection operations.	27
445	USA	1999	Weapons of mass destruction and United States NBC defense readiness: Has America provided the attacker asymmetric advantage?	11
446	USA	1999	Biological warfare: Are U.S. forces ready for biological warfare?	11
447	Germany	1999	Operational art of the German Army: "Freie Operationen".	29
448	USA	1999	Inducing operational shock to achieve quick decisive victory: How does the airborne division contribute?	2
449	USA	1999	Army's operational logistics doctrine for the twenty-first century.	27
450	USMC	1999	Learning the hard way, or not at all: The British strategic and tactical adaptation during the Boer War of 1899-1902.	4
451	USA	1999	Bosnia--searching for an exit strategy: Is there one?	19
452	USA	1999	Strike Force: On track or time to reinvent the wheel?	27
453	USA	1999	People Liberation Army, the bogeyman is only in your mind.	2

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ID #	Service / Country	AY	Monograph Title	ROMO Value
454	USA	1999	Light Infantry Division: Essential component of national defense or cold war relic?	2
455	USA	1999	Operations, training and leadership: A dynamic relationship?	28
456	USA	1999	Decisive, shaping and sustaining operations: An operational organization for the contemporary mission environment.	28
457	USA	1999	DESERT STORM: Doctrinal Airland Battle success or "the American way of war?"	2
458	USA	1999	What is operational art?	29
459	USA	1999	Tomahawk diplomacy and US national security.	3
460	USA	1999	Partnership for Peace: NATO's future.	22
461	USA	1999	Center of gravity: Is the concept still relevant?	28
462	USA	1999	Should the Army implement prime vendor for class IX repair parts?	27
463	USA	1999	Fall Gelb and the German blitzkrieg of 1940: Operational art?	2
464	USA	1999	Intelligence training for stability and support operations – can the Military Intelligence Officers Advance Course do better?	26
465	USA	1999	NO DATA	
466	USA	1999	Weinberger Doctrine: Cold War dinosaur or a useful guide for intervention in the post-Cold War era?	28
467	USA	1999	Just another headquarters or the missing link to the theater air	10

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			defense?	
468	USA	1999	Strike Force in "The Next War."	28
469	USA	1999	Using the same decision making process for joint and Army operations.	27
470	USMC	1999	National Guard Homeland Defense Division filling the gap in weapons of mass destruction defense.	11
471	USA	1999	Sumo in a ninja fight: A critical study of Army force structure in the 21st century environment.	27
472	USA	1999	Financial operations: Opportunities for inter-agency synergy.	16
473	USA	1999	Army leadership doctrine examined: The chameleon effect?	26
474	USA	1999	Pax Americana: America's bid for perpetual peace and hegemony.	29
475	USA	1999	Redcoat resupply! Strategic logistics and operational indecision in the American Revolutionary War, 1775-1783.	27
476	USA	1999	Strike Force: a mission essential task for the XVIII Airborne Corps.	27
477	USA	1999	Training relationship between the Army National Guard Brigades and their active Army Resident Training Detachments -- is this an effective relationship?	26
478	USA	1999	Toward a primer on operational art.	29
479	USAF	1999	Toward common joint targeting: synchronizing the battlefield through doctrine.	2

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480	USA	2000	Living military system on the verge of annihilation.	2
481	USA	2000	Who's killing whom? The modern evolution of the classification and targeting of civilians and noncombatants.	28
482	USA	2000	Reliability of Warden's theory on the use of air power.	2
483	USAF	2000	Bombs away: A strategic analysis of airpower in limited conflict.	28
484	USMC	2000	Joint Task Force Commanders and the "Three Block War": Setting the conditions for tactical success.	28
485	USA	2000	Army Base Operations and OMB A-76: Save now--pay later?	27
486	USAF	2000	J-SEAD: Challenges facing the Joint Forces Commander.	2
487	USAF	2000	Integrating digitization in multinational operations.	26
488	USA	2000	Competitive military recruiting -- a case of institutional fratricide.	27
489	USAF	2000	America on the offense: A new manifest destiny.	28
490	USA	2000	Friction of joint information operations.	5
491	USA	2000	Adaptive battlespace frameworks: The key to planning and control in future wars.	2
492	USA	2000	Task Force Smith, the lesson never learned.	2
493	USA	2000	Division intelligence requirements for sustained peace enforcement operations.	19
494	Germany	2000	Operational art – quo vadis?	2
495	USA	2000	Organizing for planning: The corps-to-JTF contingency operation	27

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			scenario.	
496	USA	2000	Investigating oneself: The United States Air Force and its evaluations of air power in war and conflict.	27
497	USA	2000	Teaching and learning the operational art of war: An assessment of the School of Advanced Military Studies.	26
498	USA	2000	Did the United Nations and or the United States ignore the atrocities/ genocide in Rwanda?	24
499	USA	2000	Transforming the force: The 11th Air Assault Division (Test) from 1963-1965.	27
500	USA	2000	Roles and missions and the strategic airlift problem.	28
501	USA	2000	Solving the air-ground dilemma: An examination of air power's relationship to ground operations.	2
502	USA	2000	Anticipating failed states in Latin America - implications for SOUTHCOM strategy.	28
503	USN	2000	Role of explosives safety in operational ordnance logistics.	27
504	USAF	2000	Engagement and implications for future National Security Strategies: Can the services adapt?	27
505	USA	2000	8th US Army: A case for warfighting.	27
506	USAF	2000	China's PLAAF power projection in the 21st century.	2
507	Canada	2000	Misunderstanding Mars and Minerva: The Canadian Army's failure to define an operational doctrine.	2

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ID #	Service / Country	AY	Monograph Title	ROMO Value
508	USA	2000	Force design, the airmobile concept and operational art.	27
509	USA	2000	Study of the ability of the People's Republic of China to conduct an invasion of Taiwan.	2
510	USA	2000	Information superiority: Seeking command of the cyber-sea.	5
511	USA	2000	"What's the 411" for US Army operational level fires.	2
512	USA	2000	Cultural awareness and cross cultural communication: Combat multipliers for leaders in the next millennium.	26
513	USA	2000	Operational planning for contingency operations: At the unified commands the capability does not exist.	27
514	USA	2000	Global challenges & regional responses: Organizing for the future.	27
515	USA	2000	Battlefield is not empty, but it did change: Implications of the treatment of non-combatants in post modern warfare.	24
516	USA	2000	U.S. Army Corps in humanitarian assistance operations.	14
517	USA	2000	Coercion and land power.	2
518	USA	2000	Effects of the new FM 3-0 Operations (Final Draft) on Combat Service Support planning models.	27
519	USMC	2000	OMFTS and JV 2010: A proper fit.	28
520	USA	2000	Flattening the military force structure.	27
521	USA	2000	Redefining military intelligence leadership skills for the future.	28

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522	USA	2000	Fourth generation warfare and its impact on the Army.	29
523	USA	2000	Staff responsibility to help the commander develop his vision.	29
524	USA	2000	Scalpel instead of a sledgehammer: A comparative cultural study on preparing for future conflict.	28
525	USA	2000	Technology's impact on the operational level of war.	28
526	USA	2000	Joint experimentation: A systems approach.	27
527	USA	2000	Strategic lift and the Force Projection Army, getting the most from the least.	27
528	USA	2000	Prospects for peace in Colombia: Plan Colombia and the El Salvador experience.	17
529	USA	2000	Enhancing the Army's strategic deployability.	27
530	USA	2000	Wargames, training, and decision-making. Increasing the experience of Army leaders.	26
531	USA	2000	National Guard Weapons of Mass Destruction Civil Support Team—structured for success or failure?	11
532	USA	2000	Arming the skies: The right time has not arrived.	10
533	USA	2000	Revolution after next: Making vertical envelopment by operationally significant mobile protected forces a reality in the first decade of the 21st century.	2
534	USA	2000	Commanders-in-Chief, USSOUTHCOM (1987-1991): Reflections and insights on full spectrum operations.	28

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ID #	Service / Country	AY	Monograph Title	ROMO Value
535	USA	2000	Operational planning for contingency operations at the Unified Commands: The capability does not exist.	27
536	USA	2000	Applying Just-in-Time to Army operations.	27
537	USA	2000	Doctrine for domestic disaster relief activities.	11
538	USA	2000	Operational art – leveraging information technology.	5
539	USA	2000	Doctrine for Special Forces operations in stability and support operations.	19
540	USA	2000	Strategic maneuver: Defined for the future Army.	2
541	USA	2001	Askaris, asymmetry, and small wars: Operational art and the German East African Campaign, 1914-1918.	4
542	Sweden	2001	Swedish neutrality – still valid?	29
543	Jordan	2001	Jordan mine action.	25
544	USA	2001	America's collision course with the Caucasus: Is military intervention inevitable?	21
545	USA	2001	Proconsuls and CINCs from the Roman Republic to the Republic of the United States of America: Lessons for the Pax Americana.	29
546	USA	2001	Theater strategic and operational level command and control warfare: The legal, moral, and political considerations of leadership targeting.	4
547	USMC	2001	Determining tempo and momentum of the Marine Expeditionary Force (MEF) in the spacetime dimension.	2

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548	USA	2001	Logical evolution of the MDMP.	2
549	USA	2001	Logic of military intelligence failures.	2
550	United Kingdom	2001	British Army Units under US Army control: Interoperability issues.	2
551	USA	2001	Posse Comitatus: A nineteenth century law worthy of review for the future?	12
552	USA	2001	Common vision for the common defense: Toward a more comprehensive National Security Strategy.	29
553	Canada	2001	Divining the strategic environment: Will the future allow United States intervention?	5
554	USA	2001	Contractors on the battlefield: Has the military accepted too much risk?	2
555	USA	2001	Korean unification and the U.S. Army.	29
556	USA	2001	Keeping your dog in the fight: An evaluation of synchronization and decision-making.	2
557	USA	2001	82nd Airborne Division in transformation: Is it possible to significantly increase combat power and reduce deployment sorties with current, fielded technology?	27
558	USA	2001	Political restrictions on operational fires in the post World War II environment.	2
559	USAF	2001	One hat too many: the JFC and component command.	27
560	USAF	2001	Russian airpower in the Second Chechen War.	2

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561	USA	2001	Tropic Lightning transformation.	27
562	Germany	2001	Future NATO force structures - increased degree of multinationality? German experiences and perspectives.	26
563	USA	2001	Putting the RSTA O & O to the test: Burma 2004.	28
564	USA	2001	Simultaneity: A question of time, space, resources and purpose.	2
565	USA	2001	Strange gravity: Toward a unified theory of joint warfighting.	2
566	USA	2001	Strategic mobility, the Force Projection Army, and the Ottawa Landmine Treaty: Can the Army get there?	2
567	USA	2001	Visualization: Teaching the art.	26
568	USA	2001	Fighting with fires: Decentralize control to increase responsiveness.	2
569	USA	2001	Common vision for the common defense: Toward a more comprehensive National Security Strategy.	27
570	USA	2001	Urban combat: Is the mounted force prepared to contribute?	2
571	USA	2001	United States Military and Plan Colombia: A direct combat role?	13
572	USA	2001	Digitization and the commander: Planning and executing military operations.	5
573	USA	2001	Defining decisive: Toward developing a doctrinal understanding of decisive operations and decisive points for the 21st Century Force.	26

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574	USA	2001	Seeing the elephant - Consequence Management policy for the Department of Defense.	11
575	USA	2001	Inevitable evolutions: Punctuated equilibrium and the Revolution in Military Affairs.	29
576	USA	2001	Operational logistics.	27
577	USMC	2001	Operational durability: The Marines and operational maneuver from the sea.	27
578	USA	2001	Gettysburg Campaign: Birth of the operational art?	2
579	USA	2001	Dynamic operational planning: "Information pull versus information push".	5
580	USA	2001	Capabilities-based planning: Maximizing combat power from Legacy to Objective Force.	27
581	USAF	2001	Joint laser interoperability, tomorrow's answer to precision engagement.	27
582	USA	2001	Sherman and Nimitz: Examples of modern information operations.	5
583	USA	2001	Standing Joint Task Forces: Commands now needed.	27
584	USA	2001	United States war on drugs: Addicted to a political strategy of no end.	13
585	USA	2001	Applying scientific research to optimize operational rations - exploring the possibilities.	27
586	USA	2001	How the North Vietnamese won the war: Operational art bends but does not break in response to asymmetry.	2
587	USA	2001	East Timor: A model for future United States involvement in Sub-	28

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			Saharan peace operations?	
588	South Korea	2001	No Gun Ri Incident: Implications for the U.S. Army.	4
589	USA	2001	Network centric warfare: Operational application in the land dimension of conflict.	5
590	USA	2001	NATO expansion: Making the case for the 2002 Summit.	22
591	USA	2001	Great Britain and the United States: Analogy of two great powers separated by time and a common language.	29
592	USA	2001	Effective response to attacks on Department of Defense computer networks.	5
593	USA	2001	Old wine in new bottles? The theoretical shift towards decisive battle.	2
594	USN	2001	Interagency operations: Coordination through education.	27
595	USA	2001	Operational planning issues for the peaceful reunification of the Korean Peninsula.	14
596	USA	2001	Are the relationships between junior and senior leaders in the U.S. Army Officer Corps dysfunctional?	27
597	USAF	2001	Seeking middle ground: Reconciling political appeal with military distaste for gradual escalation.	2
598	USA	2001	Kosovo: The quest for lasting internal security.	21
599	Australia	2001	Strategic planning process and the need for grand strategy.	25
600	USA	2001	Army aviation as a branch, eighteen years after the decision.	27

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601	USA	2001	Is it in U.S. national interests to maintain forward deployed military forces in Asia?	25
602	USA	2001	Big Blue Arrows: Lines of information and the Transformation Force.	5
603	USA	2001	Preparing Army officers for joint warfare leadership.	26
604	USA	2001	Reverse logistics.	27
605	USAF	2001	Bolivar or Escobar: the nature of Colombian guerrillas.	13
606	USA	2001	"Plan Colombia: assessing U.S.-Colombia counterinsurgency and counterdrug strategies.	13
607	USA	2001	Joint publication 3-0 and the tension between the attainment of strategic and tactical objectives.	2
608	USA	2001	Countering enemy Special Purpose Forces. An evolving mission for United States Special Operations Forces?	4
609	USA	2001	Operational art of counterterrorism.	8
610	USA	2001	Relationship of the officer evaluation report to Captain attrition.	27
611	USA	2002	IBCT operations on the depopulated battlefield.	2
612	USA	2002	Strategic mobility and the transforming Army.	27
613	USA	2002	Ethnic violence in Moldova.	2
614	USA	2002	Challenges of leadership development in the United States Army: Part II: The School of Advanced Military Studies (SAMS).	29

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ID #	Service / Country	AY	Monograph Title	ROMO Value
615	United Kingdom	2002	The will is the key to victory	29
616	USA	2002	Objective Force and the requirement for assigned tactical missions to specified units.	28
617	USA	2002	Rapid, decisive operations: The execution of operational art by a Standing Joint Task Force.	27
618	USA	2002	Black officer under-representation in combat arms branches.	27
619	USA	2002	Deployability of the IBCT in 96 hours: fact or myth?	27
620		2002	NO DATA	
621	USA	2002	Operational framework for homeland security: A primary mission for the National Guard.	11
622	Canada	2002	Canada's Army and the concept of maneuver warfare: The legacy of the Twentieth Century (1899-1998).	2
623	USA	2002	"Eighteen years in Lebanon and two Intifadas: The Israeli Defense Force and the U.S. Army operational environment".	17
624	France	2002	Stability and support operations, intervening armed forces and the population they serve: Defining a doctrine.	17
625	USMC	2002	Enemy inside the gates: Snipers in support of military operations in urbanized terrain.	27
626	USA	2002	Rapid reaction peacekeeping under a blue flag: A viable response for today's global environment.	21
627	USA	2002	Force health protection for the objective force.	27

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628	USA	2002	National Guard: A future homeland security paradigm?	8
629	USA	2002	Breaking the logistics branch paradigm: Should the U.S. Army combine the current logistics officer branches of ordnance, quartermaster, transportation, and medical service into one branch?	27
630	USA	2002	National Guard weapons of mass destruction civil support teams: Performing as required?	11
631	USA	2002	In order to win, learn how to fight: The US Army in urban operations.	2
632	USA	2002	Doctrinal lessons from non-state actors.	8
633	USA	2002	Army simulations: Moving toward efficient collective training sims.	26
634	USA	2002	Increasing strategic responsiveness: Rotating US Army Corps through phases of the National Military Strategy.	27
635	USA	2002	Combat assessment of non-lethal fires: The applicability of complex modeling to measure the effectiveness of information operations.	5
636	USA	2002	Posturing fire supporters to utilize naval surface fire support.	2
637	USAF	2002	Coercive warfare and gradual escalation: Confronting the bogeyman.	2
638	USAF	2002	Command and general staff officer education for the 21st Century: Examining the German Model.	27
639	USA	2002	Standing combined arms for the heavy brigade.	27

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Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
640	USA	2002	Objective Force battle staff?	27
641	United Kingdom	2002	When masses collide: A theoretical analysis of the structure of the modern operating environment, the forces in conflict and their sources of power.	29
642	USA	2002	Techniques and procedures for conducting mission analysis for stability and support operations: an application of systems theory.	29
643	USA	2002	Intelligence analysis for urban combat.	2
644	USA	2002	Effect of operational deployments on Army Reserve Component attrition rates and its strategic implications.	27
645	USA	2002	Assumption based campaign planning.	8
646	USA	2002	Air and missile defense and effects based targeting.	10
647	USA	2002	Shaping the engineer force for the asymmetric threat.	26
648	USA	2002	Casualty evacuation in the contemporary operating environment.	28
649	USA	2002	Training field grade officers to exploit the maneuver control system.	26
650	USA	2002	Employing Special Operations Forces to conduct deception in support of shaping and decisive operations.	4
651	USA	2002	NATO's new Strategic Concept: Implications for a transforming army.	22
652	USA	2002	Mission analysis: Giving commanders what they need.	29

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Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
653	USA	2002	Will close air support be where needed and when to support objective force operations in 2015?	2
654	USA	2002	"Building a shallow army: Replacement operations in the future force".	2
655	USMC	2002	Operational maneuver from the sea and the vulnerability of maritime pre-positioned forces.	7
656	USA	2002	Department of Defense and Homeland Security.	11
657	USA	2002	Are standing joint task force headquarters the first step in transforming Cold War formations?	27
658	USA	2002	End state: Relevant in stability operations?	21
659	USA	2002	Assumption based campaign planning.	8
660	USA	2002	Army National Guard: Force multiplier or irrelevant force?	27
661	USA	2002	Unconventional warfare in the contemporary operational environment: Transforming Special Forces.	4
662	USAF	2002	United States Air Force company grade officer PME and leader development: Establishing a glide path for future success.	26
663	USA	2002	Preparation of leaders to make decisions in a peacekeeping environment.	21
664	USAF	2002	NATO transformation in an era of enlargement.	22
665	USA	2002	Distributed analysis and control element: An attempt to update the threat tactical picture?	2

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Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

ID #	Service / Country	AY	Monograph Title	ROMO Value
666	USA	2002	Mineless battlespace: Shaping the future battlefield without conventional landmines.	2
667	USA	2002	NO DATA	
668	USA	2002	Cavalry transformation: Are we shooting the horse too soon?	2
669	USA	2002	In search of lasting results: Military war termination doctrine.	2
670	USA	2002	Objective Force disciplines: Making Army Transformation a reality.	29
671	USA	2002	Division general staff: Can it employ the Objective Force?	27
672	USA	2002	Information theory as a foundation for military operations in the 21st century.	5
673	USA	2002	U.S. Army's Corps Packaging concept: Improving the readiness of Army National Guard division staff officers.	27
674	USAF	2002	Fork in the path to the heavens: The emergence of an independent space force.	10
675	USN	2002	Operational art, some principles of maritime strategy, and the operational employment of the U.S. Army's Objective Force.	29
676	USAF	2002	Terrorist use of the internet and related information technologies.	5
677	USA	2002	Strategic view of Homeland Security: Relooking the Posse Comitatus Act and DOD's role in Homeland Security.	11
678	USA	2002	Can trucks sustain the Objective Force Army?	27
679	Germany	2002	Quo Vadis - NATO and the Balkans? Is there a chance for a successful exit strategy?	21

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Appendix C

School of Advanced Military Studies
Monographs 1992-2002 (continued)

680	USA	2002	Assumption based campaign planning.	8
681	USA	2002	American centurians: Developing U.S. Army tactical leadership for the twenty-first century	26
682	USA	2002	How many feathers for the war bonnet? A groundwork for distributing the planning function in Objective Force units of employment.	2
683	USA	2002	Quality of quantity: Mini-UAVs as an alternative UAV acquisition strategy at the army brigade level.	27
684	USA	2002	Reducing the fog of war: Linking tactical war gaming to critical thinking.	26
685	USA	2002	Can the Army Reserve overcome its growing company grade officer shortage?	27
686	USA	2002	Network centric warfare: Implications for operational design.	5
687	USA	2002	Using the targeting process to synchronize information operations at the tactical level.	5

Appendix D

School of Advanced Warfighting
Future War Research Papers 1992-2002

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
688	USMC	1992	I don't think we're in Kansas anymore, Toto: Small nuclear forces and marine corps power projection	1
689	Australia	1992	The implications of a United States withdrawal from the Asia-Pacific region in the 21st century: Australia's choice: Sink or swim?	25
690	USMC	1992	Future war: Motherships and microchips	2
691	USMC	1992	Marine air in 2010: Have pod will travel	2
692	USMC	1992	Today's decisions: Impact on amphibious forces in the future	2
693	USMC	1992	Major weapons, minor wars: Battlefields of the 21st century	2
694	USMC	1992	Interdependent world economy and the demise of the military as a national element of power	29
695	USMC	1992	The U.S. Marine Corps in the age of collective enforcement	26
696	USMC	1992	Building down to meet the future	28
697	USMC	1992	Forward Deployment And The Human Factor As The Marine Corps Enters The Twenty-First Century	29
698	USMC	1992	Operational maneuver from the sea: A logistical perspective	3
699	USMC	1992	Future war fighting: The real world order	28
700	USA	1992	NO DATA	
701	USN	1992	Future warfare and the United States Navy	28
702	USA	1992	Slouching towards a new world order	12

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
703	USMC	1992	NO DATA	
704	USMC	1993	NO DATA	
705	USMC	1993	NO DATA	
706	USMC	1993	NO DATA	
707	USMC	1993	Operational planning considerations for peace enforcement	19
708	USA	1993	Operational planning considerations for peace enforcement	19
709	USMC	1993	NO DATA	
710	Canada	1993	Operational planning considerations for peace enforcement	19
711	USMC	1993	NO DATA	
712	USAF	1993	Operational planning considerations for peace enforcement	19
713	Australia	1993	NO DATA	
714	USMC	1993	NO DATA	
715	USMC	1993	Operational planning considerations for peace enforcement	19
716	USN	1993	NO DATA	
717	USMC	1993	NO DATA	
718	USMC	1993	Operational planning considerations for peace enforcement	19
719	USA	1993	NO DATA	

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
720	USMC	1993	Operational planning considerations for peace enforcement	19
721	USMC	1993	Operational planning considerations for peace enforcement	19
722	USMC	1993	Operational planning considerations for peace enforcement	19
723	USA	1994	NO DATA	
724	USMC	1994	NO DATA	
725	USMC	1994	NO DATA	
726	USMC	1994	NO DATA	
727	USMC	1994	NO DATA	
728	USMC	1994	NO DATA	
729	USMC	1994	NO DATA	
730	USA	1994	NO DATA	
731	USMC	1994	NO DATA	
732	USAF	1994	NO DATA	
733	USMC	1994	NO DATA	
734	Senegal	1994	NO DATA	
735	Chile	1994	NO DATA	
736	USMC	1994	NO DATA	

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
737	USMC	1994	NO DATA	
738	USMC	1994	NO DATA	
739	USMC	1994	Beyond self defense: Thought on American interests in the post-Cold war world	29
740	USMC	1994	NO DATA	
741	Australia	1994	NO DATA	
742	USMC	1994	NO DATA	
743	USMC	1995	NO DATA	
744	USMC	1995	NO DATA	
745	USMC	1995	NO DATA	
746	USN	1995	NO DATA	
747	New Zealand	1995	NO DATA	
748	USMC	1995	NO DATA	
749	USMC	1995	NO DATA	
750	USMC	1995	NO DATA	
751	USMC	1995	NO DATA	
752	USA	1995	NO DATA	

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
753	USAF	1995	NO DATA	
754	USMC	1995	NO DATA	
755	Canada	1995	NO DATA	
756	USMC	1995	NO DATA	
757	USA	1995	NO DATA	
758	USA	1995	NO DATA	
759	USAF	1995	NO DATA	
760	USMC	1995	NO DATA	
761	USMC	1995	NO DATA	
762	USMC	1995	NO DATA	
763	USMC	1996	NO DATA	
764	USMC	1996	NO DATA	
765	USMC	1996	NO DATA	
766	USMC	1996	Mass to precision logistics	27
767	USMC	1996	NO DATA	
768	USMCR	1996	Information warfare and the Marine Expeditionary Force	5
769	Australia	1996	NO DATA	

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Appendix D

School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
770	USMC	1996	Innovation for a broken system: The Marine Corps selection process for intermediate level school	26
771	USMC	1996	Chaos, complexity, and military applications: The new sciences and military theorists	29
772	USAF	1996	NO DATA	
773	USMC	1996	NO DATA	
774	USA	1996	NO DATA	
775	Norway	1996	Decentralize when possible centralize when required	2
776	USAF	1996	UAVs, the USAF, and future warfighting	2
777	Israel	1996	NO DATA	
778	USMC	1996	The Middle East peace process: Syria and Israel implications of a demilitarized Golan Heights	21
779	USA	1996	NO DATA	
780	USMC	1996	Cultural intelligence preparation of the battlefield: A methodology for cultural analysis and the development of cultural templates	28
781	USMC	1996	NO DATA	
782	USMC	1996	U.S. State Department and U.S. Marine Corps: Partners for the 21st century, using embassies as advanced bases for information	28
783	USN	1996	NO DATA	

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
784	Lebanon	1997	NO DATA	
785	USMC	1997	A logistics campaign plan for expeditionary warfare in the 21st century	27
786	Australia	1997	Winning the next war: First, improve the Napoleonic staff system	27
787	USMC	1997	Command relationships in the littorals	27
788	USA	1997	The quiet professionals in the 21st century: Army special forces in the future	4
789	USMC	1997	Lifting the veil: Intelligence support to operational maneuver from the sea	3
790	USN	1997	Forward…from the sea: Will very shallow water and surf zone miles prevent the Navy and Marine Corps from operating in the littoral regions?	3
791	New Zealand	1997	Are you all that you could be? Meditation, mind-body control and physiological performance enhancement within the military	29
792	USAF	1997	NO DATA	
793	United Kingdom	1997	Decisive victory in the information age	5
794	USMC	1997	Avoiding dead end alleys: A complex-adaptive approach to future fire support in cities	2
795	USA	1997	The war within: The military and the Posse Comitatus Act	11
796	USMC	1997	Redefining quality: Implications for United States Marine Corps recruiting in the 21st century	27
797	USMC	1997	UAVs: An armed alternative	27

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
798	Norway	1997	Paralysis by analysis?	29
799	USMC	1997	Forward deployed: 2020	28
800	USMC	1997	NO DATA	
801	USMC	1997	NO DATA	
802	USAF	1997	Aiming high and deep: Should the United States Air Force continue to provide close air support for the United States Army?	28
803	USMC	1997	Preparing to fight our nation’s wars: The Marine Corps Hunter Warrior advanced warfighting experiment	27
804	USMC	1997	Non-strategic nuclear forces: Force multiplier or non-starter?	1
805	USMC	1998	The missing capability; conduct of the amphibious assault by avoiding the beach	3
806	USMC	1998	MEF CSS capabilities: Is there unnecessary duplication?	27
807	USMC	1998	Toward a JCS model: An analysis of Marine componency options	27
808	USMC	1998	Taiwan: America's next war?	2
809	USMC	1998	Marine Samaritans: The role of police constabulary forces in complex contingency operations	28
810	USMC	1998	Amphibious command relationships: A time for change?	3
811	USMC	1998	Expanding the MEU (SOC) joint task force enabler concept	27
812	USA	1998	Marine Corps information warfare for 2015: Obtaining battlefield	5

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
			visualization	
813	USMC	1998	The MEU command element: Shaper and enabler of future complex contingencies	28
814	USMC	1998	The Marine Expeditionary Force command element (MEF CE) as a joint interagency task force (JIATF) headquarters	27
815	USA	1998	NO DATA	
816	USMC	1998	the Goldwater Nichols Act of 1986: Impact and implications for the Marine Corps	29
817	USMC	1998	the golden opportunity: reorganizing headquarters, marine corps for the future	27
818	USN	1998	Resurrecting the monitor: A littoral imperative	7
819	USMC	1998	Centurions for a new century: Marine forces in 2015	28
820	United Kingdom	1998	Trouble in the Taiwan Strait, a catalyst that the united states cannot control?	2
821	USAF	1998	Unmanned aerial vehicles: Improving warfighting capabilities in the urban environment	28
822	USAF	1998	The AEF concept: Projecting airpower in future operations	28
823	USMC	1998	Urban warfare and operational maneuver from the sea	2
824	USN	1998	Sharks in the mud: The conventional submarine threat to amphibious landings	7
825	Australia	1998	Designing Australian land power for the 21st century	27

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
826	USMC	1998	Symptoms and systems: Intelligence and information for future urban operations other than war	28
827	USMC	1998	The 2015 MEF command element: Functions, structure and manning	27
828	Australia	1999	Maneuver warfare in the urban environment	2
829	USMC	1999	NO DATA	
830	USMC	1999	intelligence and operational maneuver from the sea: organizing for the future	27
831	USAF	1999	broadening the concept of expeditionary air forces for a new millennium of uncertainty	28
832	USMC	1999	Operational maneuver from the sea (OMFTS) and ship to objective maneuver (STOM): An enemy opportunity?	2
833	USMC	1999	NO DATA	
834	USAF	1999	Chopping the tail off the teeth: Can the U.S. Air Force make expeditionary air and space power available across the globe and into space without logistics?	2
835	USA	1999	Future warriors: the U.S. Army in 2025	27
836	USMC	1999	The Marine coordination and integration unit: Laying the foundation for the Marine Liaison Group	26
837	USA	1999	NO DATA	
838	USMC	1999	An operational level maneuver concept for littoral penetration	3
839	USMC	1999	Fractals, friction and the kingfisher's flash: Chaos and war	29

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
840	USMC	1999	NO DATA	
841	USN	1999	Network centric warfare: Is the navy on the right course?	5
842	USMC	1999	NO DATA	
843	USMC	1999	Infantry squad in urban operations: Does it meet the challenge?	27
844	USMC	1999	Ground reconnaissance in support of OMFTS: A recommendation to ensuring operational success in a technologically dominant battle space environment	27
845	USMC	1999	Through the maelstrom of three-block war: Who shall lead the marines?	26
846	USMC	1999	Dueling doctrines for the twenty-first century: Operational maneuver from the sea in a joint vision 2010 environment	28
847	USMC	1999	Paring the eagle's talons: the Impact of the dwindling defense industry on America's military readiness	2
848	USMC	1999	Military operations other than war and the Marine Corps: Organizing for success	27
849	USMC	2000	Cyber grunt: Jack-in to small unit combined-arms training and mission rehearsal using virtual environment simulation	26
850	USMC	2000	Smaller, leaner, and a lot meaner: A proposed construct for reorganizing Marine operating forces	27
851	USMC	2000	Dream or reality: Applications for nanotechnology in future warfare	28
852	USMC	2000	Leadership in future war	29

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
853	USMC	2000	The creation of the seabase: The Marine prepositioning force (future) and the combat logistics force anchor over the horizon operations of the future	27
854	USMC	2000	Electromagnetic weapons: An asymmetrical approach to information warfare	5
855	USA	2000	Moving out! Assessing 'Army transformation' for today and tomorrow	28
856	USAF	2000	"Operationalizing" space in the 21st century: Space power and the operational level of war	10
857	USN	2000	The erosion strategy: A proposed strategy for a near-peer competitor to militarily confront the United States	2
858	USAF	2000	Beyond the Expeditionary Air Force (EAF): Shaping the United States Air Force for 2020	27
859	Australia	2000	Structuring for peace and adapting for war: An alternative vision for the Australian Army	27
860	USA	2000	NO DATA	
861	USMC	2000	Operational maneuver from the sea and the advanced amphibious assault vehicle	27
862	USMC	2000	High speed sealift: The future of naval ground based force projection and strategic mobility	27
863	USMC	2000	The strategic relevance of operational maneuver from the sea	2
864	USMC	2000	Reestablishing the Marine expeditionary brigade in a 21st century Marine Corps	27
865	USMC	2000	Casualties and public support: An operational consideration for future conflict	28

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Appendix D

School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
866	USMC	2000	The infantry renaissance: The infantryman's role in the multi-sensor/PGM dominated battlefield of the future	2
867	USMC	2000	UAVs: A vision of precision engagement in 2015	2
868	Canada	2000	David vs Goliath: How a low-tech country can defeat the United States	28
869	USAF	2000	The future of close air support	2
870	DIA	2000	Operation ALLIED FORCE and the future of airpower	2
871	USMC	2000	The future of the MAGTF officer: What price purple?	26
872	USMC	2000	East meets West: Unrestricted warfare as viewed through a complex adaptive system lens	2
873	USMC	2001	MEF staff organization for the 21st century	27
874	USA	2001	Unmanned aerial vehicles: Battlefield hunter/killers	2
875	USMC	2001	Expeditionary maneuver warfare and strategic sealift: Ways to improve the marines' expeditionary capability	27
876	USMC	2001	Minimizing casualties: The fusion of precision guided munitions (PGM) and non-lethal weapons (NLW) technologies	2
877	USMC	2001	Daddy's tale: A glimpse of coming war and a warning on the dangers of military utopianism	2
878	USN	2001	Naval aviation 2021: Ramp strike or ok3	27
879	USMC	2001	NO DATA	

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Appendix D

School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
880	USMC	2001	The joint strike force: A capability to meet the strategic requirements in 2020	27
881	USMC	2001	Empowering the small unit leader: Self sufficiency in tactical maintenance sustains mass and tempo in EMW operations	26
882	USA	2001	Organizing for the future: The army's objective force cavalry squadron	27
883	Romania	2001	Biological warfare: War of the future?	11
884	USMC	2001	The conflict terminators	28
885	USAF	2001	Unmanned combat aerial vehicles: Transformation of the USAF	27
886	USAF	2001	Close air support out, close attack synchronization in	2
887	USMC	2001	Overcoming the clash of dependent wills	26
888	USMC	2001	Back to the future: Operational artillery fires at EAC	2
889	USMC	2001	Dispersing to win in 2025	3
890	USMC	2001	The expeditionary warfare group of 2013	3
891	USMC	2001	Thinking out of the box: Reading military texts with a different perspective	29
892	USAF	2001	Precision misses the mark	27
893	USMC	2001	Preparing for the unknown: Intermediate level PME for future war	26
894	USMC	2001	Air ground sensor integration: Sensing the future battlespace	5
895	USMC	2001	Access: The wildcard in expeditionary maneuver warfare	3

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School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
896	USMC	2001	Dulouz' diary: The marines build men	26
897	USMC	2002	Wanted: Leaders who can change	29
898	USMC	2002	Forcible entry in the 21st century: Challenges and solutions	3
899	USA	2002	Sledgehammers and scalpels: Developing a national security strategy in the global fight against terrorism in the 21st century	8
900	USMC	2002	Preempting apocalypse: Amphibious raids in support of future strategies to combat terrorism	3
901	USMC	2002	The future impact of C4I advancements on the Marine Corps infantry battalion	5
902	USMC	2002	The Marine strike battalion	3
903	USA	2002	Means and methods for integrating conventional, unconventional, and indigenous forces in the 21st century operational environment	28
904	Australia	2002	Australian Defence Force 2050: Joint sensor-shooter task forces	2
905	USMC	2002	The new Maskirovka: Countering U.S. rapid decisive operations in the 21st century	5
906	USMC	2002	Equipping our strategic corporal for 21st century warfare	26
907	USN	2002	NO DATA	
908	USMC	2002	The shrinking infantry battalion: How the Marine Corps can retain and enhance capability for the future	2
909	USMC	2002	Landmine warfare and the Marine Corps' warfighting concept for the 21st century	2

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Appendix D

School of Advanced Warfighting
Future War Research Papers 1992-2002 (continued)

ID #	Service / Country	AY	Future War Research Paper Title	ROMO Value
910	USMC	2002	OMFTS and fire support: How to fix the "weakest link," or "How I learned to love the battleship"	3
911	USMC	2002	Legitimate information dominance: A case for the operational planner	5
912	USMC	2002	Making a quick call: Compressing future military decision cycles with improved processes and technology	5
913	USMC	2002	The civil-military gap: Why it exists and what should be done about it	26
914	USMC	2002	Operationalizing coalitions of the future	26
915	USAF	2002	Applying effects-based operations in small wars	17
916	USAF	2002	The combined air operations center: Getting the organization right for future coalition air operations	27
917	Norway	2002	Impact of information and precision-strike technologies on future warfare	28
918	USMC	2002	Paper tiger - hidden dragon: Can America mobilize for future war	2
919	USMC	2002	Strategic and operational mobility: The foundation for the success of the United States in future war	3
920	United Kingdom	2002	Commando 21: An increase in combat power and flexibility	2

Appendix E

School of Advanced Air and Space Studies
Theses 1992-2002

ID #	Service / Country	AY	Thesis Title	ROMO Value
921	USAF	1992	Aerospace doctrine matures through a storm: An analysis of the new AFM 1-1	2
922	USAF	1992	Rules of defeat: The impact of aerial rules of engagement on USAF operations in North Vietnam, 1965-1968	2
923	USAF	1992	Defense suppression: Building some operational concepts	2
924	USAF	1992	Military/media clash and the new principle of war: media spin	2
925	USAF	1992	Air force culture and conventional strategic airpower	2
926	USAF	1992	Fifth Air Force light and medium bomber operations during 1942 and 1943: Building doctrine and forces that triumphed in the battle of the Bismarck Sea and the Wewak Raid	2
927	USAF	1992	What will Douhet think of next? An analysis of the impact of stealth technology on the evolution of strategic bombing doctrine	2
928	USAF	1992	Power projection: Making the tough choices	3
929	USAF	1992	Planting the seeds of SEAD: The Wild Weasel in Vietnam	2
930	USAF	1992	Fighting with a conscience: The effects of an American sense of morality on the evolution of strategic bombing campaigns	2
931	USAF	1992	Demand the advantage: When is air power central to a campaign	2
932	USAF	1992	United States antisatellite policy for a multipolar world	10
933	USAF	1992	Failure of third world airpower: Iraq and the war with Iran	2
934	USAF	1992	Projecting American airpower: Should we buy bombers, carriers, or fighters?	2

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Appendix E

School of Advanced Air and Space Studies
Theses 1992-2002 (continued)

ID #	Service / Country	AY	Thesis Title	ROMO Value
935	USAF	1992	Airpower's Gordian knot: Centralized versus organic control	27
936	USAF	1992	Secret air war over France: USAAF special operations units in the French campaign of 1944	4
937	USAF	1992	Composite wing: Back to the future!	27
938	USAF	1992	From Teaball to Fast Ball: The evolution and future of real-time intelligence in the cockpit	27
939	USAF	1992	To war on tubing and canvas: A case study in the interrelationships between technology, training, doctrine and organization	4
940	USAF	1992	Airship's potential for intertheater and intratheater airlift	27
941	USAF	1993	Strategic paralysis: An airpower theory for the present	2
942	USAF	1993	Role of United States airpower in peacekeeping	21
943	USAF	1993	Long road to Desert Storm and beyond: The development of precision guided bombs	2
944	USAF	1993	Getting a grip on strategic paralysis	2
945	USAF	1993	Mines away! The significance of U.S. Army Air Forces minelaying in World War II	7
946	USAF	1993	Fighting to get along: Doctrine and interservice rivalry	27
947	USAF	1993	Theater airlift management and control: Should we turn back the clock to be ready for tomorrow?	2
948	USAF	1993	DOD operational requirements and systems concepts generation processes: A need for more improvement	27

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Appendix E

School of Advanced Air and Space Studies
Theses 1992-2002 (continued)

ID #	Service / Country	AY	Thesis Title	ROMO Value
949	USAF	1993	Ground maneuver and air interdiction: A matter of mutual support at the operational level of war	2
950	USAF	1993	Air control: Strategy for a smaller United States Air Force	19
951	USAF	1993	Moral domain of war: A view from the cockpit	2
952	USAF	1993	Strategic attack of national electrical systems	3
953	USAF	1993	Green and blue in the wild blue: An examination of the evolution of Army and Air Force airpower thinking and doctrine since the Vietnam War	2
954	USAF	1993	Taking down telecommunications	5
955	USAF	1993	Centralized control of space: The use of space forces by a joint force commander	2
956	USAF	1993	Air Force logistics: Moving from a mobilization base to one of mobility	27
957	USAF	1993	Counterspace Operations for Information Dominance	5
958	USAF	1993	Historical view of air policing doctrine: Lessons from the British experience between the wars, 1919-39	19
959	USAF	1993	Thunderbolts and eggshells: Composite air operations during Desert Storm and implications for USAF doctrine and force structure	2
960	USAF	1993	Preventive attack in the 1990s?	15
961	USAF	1993	U.S. forward deployment policy: An assessment	22
962	USAF	1993	Targeting organizations: Centralized or decentralized?	27

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ID #	Service / Country	AY	Thesis Title	ROMO Value
963	USAF	1993	Rethinking the air operations center: Air Force command and control in conventional war	2
964	USAF	1993	Attacking the theater mobile ballistic missile threat	10
965	USAF	1993	Airpower as a tool of foreign policy: Two case studies of airpower's use : the Philippines in 1941 and Berlin in 1948	22
966	USAF	1993	Build-to-shelve prototyping: Undercutting doctrinal development	27
967	USAF	1993	Of carrots and sticks or air power as a nonproliferation tool	15
968	USAF	1993	Aerospace strategy for the aerospace nation	27
969	USAF	1993	Utility of targeting the petroleum-based sector of a nation's economic infrastructure	2
970	USAF	1994	Prototype JFACC: General George C. Kenney	2
971	USAF	1994	Architecture for victory: Hyper-planning for hyper-war	29
972	USAF	1994	Peace by committee: Command and control issues in multinational peace enforcement operations	19
973	USAF	1994	Joint operations in the Gulf War: An Allison analysis	27
974	USAF	1994	Future shock: A case for the B-2 bomber	2
975	USAF	1994	USAF support to low intensity conflict: Three case studies from the 1980s	17
976	USAF	1994	Air mobility: The strategic use of nonlethal airpower	27
977	USAF	1994	John Boyd and John Warden: Air power's quest for strategic paralysis	3

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ID #	Service / Country	AY	Thesis Title	ROMO Value
978	USAF	1994	Oz revisited: Russian military doctrinal reform in light of their analysis of Desert Storm	2
979	USAF	1994	Mission-type orders in joint air operations: the empowerment of air leadership	2
980	USAF	1994	Operational Level Air Commanders: A Search for the Elements of Genius	29
981	USAF	1994	Falcon and the trident: Air Force-Navy airpower coordination and the new MRC model	2
982	USAF	1994	Counterair companion: A short guide to air superiority for joint force commanders	2
983	USAF	1994	Sum of their fears: The relationship between the Joint Targeting Coordination Board and the Joint Force Commander	2
984	USAF	1994	Big eagle, little dragon: Propaganda and the coercive use of airpower against North Vietnam	5
985	USAF	1994	Coercive air strategy: Forcing a bureaucratic shift	2
986	USAF	1994	Beyond the industrial web: Economic synergies and targeting methodologies	2
987	USAF	1994	Falcons against the Jihad: Israeli airpower and coercive diplomacy in Southern Lebanon	8
988	USAF	1994	Three-pronged strategy to solve the problem of long-range missile proliferation	15
989	USAF	1994	Third World traps and pitfalls: Ballistic missiles, cruise missiles, and land-based airpower	10
990	USAF	1994	Mechanism for strategic coercion: Denial or second order change?	2

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ID #	Service / Country	AY	Thesis Title	ROMO Value
991	USAF	1994	Rollover-plus: A great way to build second-rate fighters	27
992	USAF	1994	In search of the missing link: Relating destruction to outcome in airpower application	2
993	USAF	1994	USAF vulnerability to limited ground attacks	27
994	USAF	1994	Choke hold: The attack on Japanese oil in World War II	2
995	USAF	1995	Airpower Against an Army	2
996	USAF	1995	Inherent limitations of spacepower: Fact or fiction?	10
997	USAF	1995	National Security: Implications of Inexpensive Space Access	10
998	USAF	1995	Filling the air firepower gaps: What system meets the stress tests?	27
999	USAF	1995	Matter of trust: Close air support apportionment and allocation for operational level effects	2
1000	USAF	1996	Beyond the battle line: U.S. air attack theory and doctrine, 1919-1941	2
1001	USAF	1995	Blueprints for the future: Comparing national security space architectures	10
1002	USAF	1995	Diffusion of military technologies of foreign nations: Arms transfers can preserve the defense technological and industrial base	22
1003	USAF	1995	Making the connection: An air strategy analysis framework	27
1004	USAF	1995	Global reach--global power: Air Force strategic vision, past and future	27
1005	USAF	1995	Information warfare: The face of future war, or a rubric for force enhancement?	5
1006	USAF	1995	After the Gulf War: Balancing spacepower's development	10

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1007	USAF	1995	Time value of military force in modern warfare: The airpower advantage	2
1008	USAF	1995	Improving the management of an air campaign with virtual reality	2
1009	USAF	1995	Eagle War: Air task force for the deep battle	2
1010	USAF	1995	Special operations forces and unmanned aerial vehicles: Sooner or later?	4
1011	USAF	1995	Hitler's silver bullet: An analysis of the V-2 development and employment	10
1012	USAF	1995	When the enemy has our eyes	10
1013	USAF	1995	Enhancement of the Civil Reserve Air Fleet: An alternative for bridging the airlift gap	27
1014	USA	1995	Links between science, philosophy, and military theory: Understanding and past, implications for the future	26
1015	USAF	1995	Fighting the drug war in Latin America: Is there a better way?	13
1016	USAF	1995	Planning airpower strategies: Enhancing the capability of air component command planning staff	2
1017	USAF	1995	Balancing the trinity: The fine art of conflict termination	19
1018	USAF	1995	More than just a nuisance: When aerial terror bombing works	8
1019	USAF	1995	Beyond gunboat diplomacy: Forceful applications of airpower in peace enforcement operations	19
1020	USAF	1995	Organization and training of joint task forces	26
1021	USAF	1996	Bombs over Bosnia: The role of airpower in Bosnia-Herzegovina	16
1022	USAF	1996	Transport bombers: A conceptual shift in precision guided munitions delivery	27

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1023	USAF	1996	Do we walk our talk? A study on operational art in the joint operational planning and execution system	27
1024	USAF	1996	Lifeline from the sky: The doctrinal implications of supplying an enclave from the air	27
1025	USAF	1996	Lethal airpower and intervention	3
1026	USAF	1996	Transportation balance: A study of the transportation budgeting process	27
1027	USAF	1996	Organizational concepts for the sensor-to-shooter world: The impact of real-time information on airpower targeting	2
1028	USAF	1996	Influence of American military presence on Saudi Arabian stability	8
1029	USAF	1996	Keeping the peace: Regional organizations and peacekeeping	21
1030	USAF	1996	Benign weather modification	24
1031	USAF	1996	AWPD-42 to instant thunder: Consistent, evolutionary thought or revolutionary change?	2
1032	USAF	1996	Information warfare: An Air Force policy for the role of public affairs	5
1033	USAF	1996	Command dysfunction: Minding the cognitive war	29
1034	USAF	1996	Operation Vigilant Warrior: Conventional deterrence theory, doctrine, and practice	20
1035	USAF	1996	Coalition warfare: Considerations for the air component commander	2
1036	USAF	1996	Sustained coercive air presence: Provide Comfort, Deny Flight, and the future of airpower in peace enforcement	19
1037	USAF	1996	Expendable remotely piloted vehicles (RPVs) for strategic offensive airpower	2

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ID #	Service / Country	AY	Thesis Title	ROMO Value
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1038	USAF	1996	Lt Gen Ned Almond, USA: A ground commander's conflicting view with airmen over CAS doctrine and employment	2
1039	USAF	1996	Operational level propositions for the use of airpower in maritime operations (MAROPS)	9
1040	USAF	1996	Concepts of Operations for a Reusable Launch Vehicle	10
1041	USAF	1996	Chariots of Fire: Rules of engagement in Operation Deliberate Force	16
1042	USAF	1996	Doctrine gap: The 27 year wait for a new Air Force operational doctrine document	26
1043	USAF	1996	Unmanned aerial vehicles and weapons of mass destruction: A lethal combination?	1
1044	USA	1996	Framework for military decision-making under risks	29
1045	USAF	1996	Quick Response Air Force: Decisive expeditionary airpower for the future?	3
1046	USA	1996	Future of NATO's tactical air doctrine	26
1047	USAF	1996	The special Osprey: Impact on special operations doctrine	4
1048	USAF	1997	Quest for the high ground: The development of SEAD strategy	2
1049	USAF	1997	Information as a weapon: Reality versus promises	5
1050	USAF	1997	Airpower and the cult of the offensive	2
1051	USAF	1997	Busting bridges: Is it really worth it?	2
1052	USAF	1997	Organizing to fight: Goldwater-Nichols and the military strategist	27

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1053	USAF	1997	Airpower tenet of centralized control from organizational and battle management perspectives	2
1054	USAF	1997	Influence of America's casualty sensitivity on military strategy and doctrine	2
1055	USAF	1997	Air Force long range planning organization: Speaking with one voice?	27
1056	USAF	1997	Adaptive command and control of theater airpower	2
1057	USMC	1997	Quest for commonality: A comparison of the TFX and JSF programs	27
1058	USAF	1997	Training "Combat JAGs" - does today's operational training for military lawyers fit the bill?	26
1059	USAF	1997	From slogan to strategy: The Air Force core values	27
1060	USAF	1997	Synchronizing airpower and firepower in the deep battle	2
1061	USAF	1997	Wild blue yonder in a purple world: Improving USAF interaction with the joint warfighting capabilities assessment process	27
1062	USAF	1997	Planning is not everything: A study of continuity issues in deliberate and crisis action planning	27
1063	USAF	1997	Limits of Soviet airpower: The bear versus the Mujahideen in Afghanistan, 1979-1989	17
1064	USAF	1997	Expanding the national airlift fleet: The quest for a civil-military transport	27
1065	USAF	1997	Safe heavens: Military strategy and space sanctuary thought	10
1066	USAF	1998	Calming all their fears: An analysis of expressing the apportionment decision	2

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1067	USAF	1998	Small wars, big stakes: Coercion, persuasion, and airpower in counterrevolutionary war	17
1068	USAF	1998	Charting the nation's course: Strategic planning processes in the 1952-53" New Look" and the 1996-97 Quadrennial Defense Review	27
1069	USAF	1998	Higher eyes in the sky: The feasibility of moving AWACS and JSTARS functions into space	10
1070	USAF	1998	Toward the future of theater airlift doctrine: Case studies of theater airlift doctrine in Operation Uphold Democracy and Operation Joint Endeavor	2
1071	USA	1998	Air base defense for the air expeditionary force: more than defending the redline	7
1072	USAF	1998	Full circle? The transformation of dedicated adversary air training in the USAF	26
1073	USAF	1998	Avoiding the seam: An analytical framework for deep attack	2
1074	USMC	1998	General Earle E. Partridge, USAF: Airpower leadership in a limited war	2
1075	USAF	1998	Chinese defense modernization and the defense of Taiwan: Implications for the USAF	2
1076	USAF	1998	Toward an air and space force: Can we get there from here? naval aviation and the implications for space power	27
1077	USAF	1998	Psychology of coercion: Merging airpower and prospect theory	2
1078	USAF	1998	From theater missile defense to antimissile offensive actions: A near-term strategic approach for the USAF	10
1079	USAF	1998	Force application planning: A systems-and-effects-based approach	2

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1080	USAF	1998	Future of USAF combat search and rescue	6
1081	USAF	1998	Decapitation: Contemporary air power countercontrol strategies	2
1082	USAF	1998	Effectiveness versus efficiency: Organizational design and its impact on airlift	27
1083	USAF	1998	Modeling and simulation technology a new vector for flight-test	27
1084	USAF	1998	Airpower and the battle of Khafji: Setting the record straight	2
1085	USAF	1998	The Battle of Khafji: Implications for airpower	2
1086	USAF	1998	In search of an identity : Air Force core competencies	27
1087	USAF	1998	Collateral damage and the United States Air Force	27
1088	USAF	1998	Targeting national security: The true mechanism behind effective national coercion	2
1089	USAF	1998	Shackled by perceptions: America's desire for bloodless intervention	27
1090	USAF	1998	Building the eagle's nest: Challenges in basing the Air Expeditionary Force	27
1091	USAF	1998	Bombing to surrender: The contribution of airpower to the collapse of Italy, 1943	2
1092	USAF	1998	Does the United States Need Space-Based Weapons?	10
1093	USAF	1998	Air refueling receiver that does not complain	27
1094	USAF	1998	Bridging the gap between warfighters and industry: The professional and personal development of the acquisition officer	26

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1095	USAF	1998	Facing the future: A doctrine for air control in limited conflicts	19
1096	USAF	1998	Targeting for effect: An analytical framework for counterland operations	2
1097	USAF	1998	1800TMBCS: An organizational analysis of TBMCS development	27
1098	USAF	1998	Airpower application framework: Modeling coercive airpower strategies	2
1099	USAF	1998	Warden and the Air Corps Tactical School: Deja vu?	2
1100	USAF	1998	Improving NATO's interoperability through U.S. precision weapons	2
1101	USAF	1998	Stretching the umbilical cord: The theory, practice and future of the split air operations center	2
1102	USAF	1999	Paradigm lost: Rethinking theater airlift to support the Army after next	27
1103	USA	1999	United States Air Force Security Forces in an era of terrorist threats	7
1104	USAF	1999	Once in a blue moon: Airmen in theater command : Lauris Norstad, Albrecht Kesselring, and their relevance to the twenty-first century Air Force	2
1105	USAF	1999	Bedding down with C-O-T-S: Leveraging commercial industry to solve the strategic airlift shortfall	27
1106	USAF	1999	Shielding the sword: A strategy for protecting the AEF	7
1107	USAF	1999	Playing defense and offense: Employing rescue resources as offensive weapons	6
1108	USAF	1999	Air leadership in joint/combined operations: Lt. General George E. Stratemeyer of the Eastern Air Command, 1943-1945	2
1109	USAF	1999	Uninhabited combat aerial vehicles: Airpower by the people, for the people,	27

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ID #	Service / Country	AY	Thesis Title	ROMO Value
			but not with the people	
1110	USAF	1999	On the fields of friendly strife: The dichotomy of Air Force doctrine and training involving real-time targeting	2
1111	USAF	1999	United States Air Force lessons in counterinsurgency: Exposing voids in doctrinal guidance	17
1112	USAF	1999	Nuclear de-alerting and the search for post-Cold War nuclear policy	1
1113	USAF	1999	Coercive air strategy in post-Cold War peace operations	16
1114	USAF	1999	Theater land attack cruise missile defense: Guarding the back door	10
1115	USAF	1999	Fire in the city: Airpower in urban, smaller-scale contingencies	28
1116	USAF	1999	Fire support coordination measures by the numbers	2
1117	USAF	1999	Break free from the sea: A study of employing carrier airpower from the beach	2
1118	USAF	1999	Assessing Air Force investment and opportunities in information superiority	5
1119	USAF	1999	Joint targeting: What's still broke?	2
1120	USAF	1999	Measuring airlift effectiveness in the new millennium	27
1121	USAF	1999	Challenging policy: Confronting the military professional's dilemma	29
1122	USAF	1999	Eliminating the rhetoric: An evaluation of the halt phase strategy	2
1123	USMC	1999	Kill is a kill: Asymmetrically attacking U.S. airpower	5
1124	USAF	1999	Striking the balance: Airpower rules of engagement in peace operations	28

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1125	USAF	1999	Vital interests, virtual threats: Reconciling International Law with Information Warfare and United States Security	5
1126	USAF	1999	Piloting the USAF's UAV fleet: Pilots, non-rated officers, enlisted, or contractors?	27
1127	USAF	1999	Securing the heavens: A perspective on space control	10
1128	USAF	2000	Weapons of choice: The "propeller versus jet" controversy and the "appropriate technology" dilemma	27
1129	USAF	2000	Shaping the space medium: Does the geographic CINC model apply?	10
1130	USAF	2000	B-52: Can it fly until 2050?	27
1131	USAF	2000	Effects-based targeting: Another empty promise?	2
1132	USAF	2000	Making Room for Space in Aerospace	10
1133	USAF	2000	Integrating AI and space GMTI sensors: Step or stumbling block along the transition to an aerospace force?	28
1134	USAF	2000	Combining sequential and cumulative air strategies for victory: The past informs the future	2
1135	USAF	2000	Hale's handful...up from the ashes: The forging of the Seventh Air Force from the ashes of Pearl Harbor to the triumph of V-J Day	2
1136	USAF	2000	Enhancing the operational art: The influence of the information environment on the command-and-control of airpower	5
1137	USAF	2000	Somalia: Air mobility in a complex humanitarian emergency	14

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1138	USAF	2000	Air Mobility: The key to the United States National Security Strategy	27
1139	USAF	2000	Biological warfare and American strategic risk	9
1140	USMC	2000	The role of culture in military operations on urban terrain	28
1141	USAF	2000	Seeking shadows in the sky: The strategy of air guerrilla warfare	4
1142	USAF	2000	Airpower and gradual escalation: Reconsidering the conventional wisdom	2
1143	USAF	2000	United States Air Force precision engagement against mobile targets: Is man in or out?	2
1144	USAF	2000	Transformation trinity: A model for strategic innovation and it's application to space power	10
1145	USA	2000	Unconventional warfare: A mission metamorphosis for the 21st century?	4
1146	USAF	2000	U.S. military aircraft for sale: Crafting an F-22 export policy	27
1147	USAF	2000	Comparative analysis of internal and external solutions to provide Air Combat Maneuvering Instrumentation (ACMI) functionality	26
1148	USAF	2000	Control warfare: Inside the OODA Loop	2
1149	USAF	2000	Dead on arrival? The development of the aerospace concept, 1944-58	10
1150	USAF	2000	XIX Tactical Air Command and ULTRA: Patton's force enhancers in the 1944 campaign in France	2
1151	USAF	2000	Boots in the air: Moving the new Army brigade	27
1152	USAF	2000	Airborne Warning and Control System (AWACS) and space: A framework to help understand the issues	10

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1153	USAF	2000	Unmanned aerial warfare: Strategic help or hindrance?	3
1154	USAF	2000	Wearing the white hat: The effect of American strategic culture on implementing national strategy	29
1155	USAF	2000	Art of wing leadership: Exploring the influences of aircrew morale in combat	2
1156	USAF	2001	Prejudicial counsel: A multidimensional study of tactical airpower between the Korean and Vietnam wars	2
1157	USAF	2001	Enduring framework for assessing the contributions of force structure to a coercive strategy	27
1158	USAF	2001	Phil Cochran and John Alison: Images of Apollo's warriors	4
1159	USAF	2001	Peering into the future: Peer-to-peer technology as a model for distributed joint battlespace intelligence dissemination and operational tasking	27
1160	USAF	2001	General Merrill A. McPeak: Leadership and organizational change	27
1161	USAF	2001	Peering over the cliff: Guidelines for statesmen contemplating war	29
1162	USAF	2001	De-ranged: Global power and air mobility for the new millennium	3
1163	USAF	2001	Fall of the fighter generals: The future of USAF leadership	27
1164	USAF	2001	Vision to victory - space, Mahan, and Mitchell: The role of the visionary in cross-organizational innovation	29
1165	USAF	2001	Turning the vertical flank: Airpower as a maneuver force in the theater campaign	2
1166	USAF	2001	Who should call the shots? Resolving friction in the targeting process	2
1167	USAF	2001	Germinating a new SEAD: The implications of executing the SEAD	2

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ID #	Service / Country	AY	Thesis Title	ROMO Value
			mission in a UCAV	
1168	USAF	2001	Politics of coercion: Toward a theory of coercive airpower for post-cold war conflict	3
1169	USA	2001	Space operations organization: Stellar support for the warfighter	10
1170	USAF	2001	Space-derived transparency: Players, policies, implications, and synergies	5
1171	USAF	2001	Limits of decentralized execution: The effects of technology on a central airpower tenet	2
1172	USAF	2001	Art of strategic balance: Reconciling global, domestic, and theater imperatives	2
1173	USAF	2001	Do we need separate space theory: The lessons of history	10
1174	USAF	2001	United States strategic bombing survey and Air Force doctrine	2
1175	USAF	2001	National response to WMD incidents: Implications for airlift	1
1176	USAF	2001	Capabilities gap in Desert Storm: A coalition air campaign case study	2
1177	USAF	2001	Weinberger "doctrine": Useful compass or flawed checklist	2
1178	USAF	2001	Ten propositions regarding spacepower	10
1179	USAF	2001	Air war over Serbia: Denial, punishment, or balance of interest	2
1180	USMC	2001	Marine close air support in Korea 1950-1953	2
1181	USAF	2001	No fly zones: Costs, benefits, and conditions	16
1182	USAF	2001	For valor or value an examination of personnel recovery operations	6

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ID #	Service / Country	AY	Thesis Title	ROMO Value
1183	USAF	2002	Reconsidering Precision Engagement for Close Air Support	2
1184	USAF	2002	Operational control of global airpower	2
1185	USAF	2002	Control of mobility Air Forces: Should the director of mobility forces command?	2
1186	USAF	2002	Strapping in and bailing out: Navy and Air Force joint acquisition of aircraft	27
1187	USAF	2002	Death of "Superman": The case against specialized tanker aircraft in the USAF	27
1188	USAF	2002	Complex targeting: A complexity-based theory of targeting and its application to radical Islamic terrorism	8
1189	USAF	2002	Airpower versus a fielded force; misty FACs of Vietnam and A-10 FACs of Kosovo -- a comparative analysis	2
1190	USAF	2002	Training of military pilots: Men, machines, and methods	26
1191	USAF	2002	Choosing a moral framework for the war on terror	8
1192	USAF	2002	New terrorism; the nature of the war on terrorism	8
1193	USAF	2002	UCAV - the next generation air-superiority fighter?	2
1194	USAF	2002	Unmanned airlift: A viable option for meeting the strategic airlift shortfall	27
1195	USAF	2002	Time-critical targeting: Predictive versus reactionary methods, an analysis for the future	2
1196	USA	2002	Nebuchadnezzar's sphinx : What have we learned from Baghdad's plan to take Kuwait?	2
1197	USAF	2002	What happened to BAI? Army and Air Force battlefield doctrine development from pre-Desert Storm to 2001	2

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1198	USAF	2002	Stealth, precision, and the making of American foreign policy	2
1199	USAF	2002	America's first air battles: Lessons learned or lessons lost?	2
1200	USAF	2002	Assessing airpower's effects: Capabilities and limitations of real-time battle damage assessment	2
1201	USAF	2002	Defense or deterrence? The future of missile defense	10
1202	USAF	2002	Probe and drogue aerial refueling requirements: How will Air force special operations command meet future demands?	4
1203	USAF	2002	Creech blue: General Bill Creech and the reformation of the tactical air forces, 1978-1984	27
1204	USAF	2002	Forging the sword: Developing leaders for the Air Operations Center	26
1205	USAF	2002	Malignants in the body politic: Redefining war through metaphor	8
1206	USAF	2002	Will the bomber always get through? The Air Force and its reliance on technology	27
1207	USAF	2002	Policy, influence, and diplomacy: Space as a national power element	10
1208	USAF	2002	Airpower's role in homeland defense: A western hemisphere perspective	9
1209	USA	2002	Strategic provocation: Explaining terrorist attacks on America	8

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ID #	Service / Country	AY	Thesis Title	ROMO Value	Test-Retest
1021	USAF	1996	Bombs over Bosnia: The role of airpower in Bosnia-Herzegovina	16	2
1022	USAF	1996	Transport bombers: A conceptual shift in precision guided munitions delivery	27	27
1023	USAF	1996	Do we walk our talk? A study on operational art in the joint operational planning and execution system	27	29
1024	USAF	1996	Lifeline from the sky: The doctrinal implications of supplying an enclave from the air	27	27
1025	USAF	1996	Lethal airpower and intervention	3	2
1026	USAF	1996	Transportation balance: A study of the transportation budgeting process	27	27
1027	USAF	1996	Organizational concepts for the sensor-to-shooter world: The impact of real-time information on airpower targeting	2	2
1028	USAF	1996	Influence of American military presence on Saudi Arabian stability	8	8
1029	USAF	1996	Keeping the peace: Regional organizations and peacekeeping	21	21
1030	USAF	1996	Benign weather modification	24	29
1031	USAF	1996	AWPD-42 to instant thunder: Consistent, evolutionary thought or revolutionary change?	2	2
1032	USAF	1996	Information warfare: An Air Force policy for the role of public affairs	5	5
1033	USAF	1996	Command dysfunction: Minding the cognitive war	29	29
1034	USAF	1996	Operation Vigilant Warrior: Conventional deterrence theory,	20	20

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Class of 1996
Test-Retest (continued)

ID #	Service / Country	AY	Thesis Title	ROMO Value	
			doctrine, and practice		
1035	USAF	1996	Coalition warfare: Considerations for the air component commander	2	2
1036	USAF	1996	Sustained coercive air presence: Provide Comfort, Deny Flight, and the future of airpower in peace enforcement	19	19
1037	USAF	1996	Expendable remotely piloted vehicles (RPVs) for strategic offensive airpower roles	2	2
1038	USAF	1996	Lt Gen Ned Almond, USA: A ground commander's conflicting view with airmen over CAS doctrine and employment	2	2
1039	USAF	1996	Operational level propositions for the use of airpower in maritime operations (MAROPS)	9	9
1040	USAF	1996	Concepts of Operations for a Reusable Launch Vehicle	10	10
1041	USAF	1996	Chariots of Fire: Rules of engagement in Operation Deliberate Force	16	16
1042	USAF	1996	Doctrine gap: The 27 year wait for a new Air Force operational doctrine document	26	26
1043	USAF	1996	Unmanned aerial vehicles and weapons of mass destruction: A lethal combination?	1	1
1044	USA	1996	Framework for military decision-making under risks	29	29
1045	USAF	1996	Quick Response Air Force: Decisive expeditionary airpower for the future?	3	3
1046	USA	1996	Future of NATO's tactical air doctrine	26	26

(continued)

Appendix E

School of Advanced Air and Space Studies
Theses 1992-2002 (continued)

1047	USAF	1996	The special Osprey: Impact on special operations doctrine	4	4

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VITA

Andrew J. Gebara was born August 17, 1969, in Dayton, Ohio. A 19-year veteran of the U.S. Air Force, he is a 2006 Advanced Studies Group graduate of the U.S. Marine Corps School of Advanced Warfighting. He has earned Master's Degrees from Syracuse University (1997), the Marine Corps University (2006), and the Naval War College (2009). Andy currently lives in a Tampa, Florida, suburb with his wife and two sons.