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Understanding Force Multipliers: The Key to Optimizing Force Capabilities in Peacetime Contingency Operations

A Monograph
by

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The monograph first evaluates the theoretical aspects of force multipliers. A survey of classical theorists such as Sun Tzu, Clausewitz and Jomini provides a backdrop for more recent theorists who treat force multipliers in detail.

Next, the monograph examines two historical examples of peacetime contingency operations; Lebanon in 1958 and the Dominican Republic in 1965. In each case, sustainment force multipliers played a significant role by enhancing and amplifying key capabilities.

Finally, an analysis of the contemporary contingency environment demonstrates that sustainment force multipliers will continue to play a significant role in future peacetime contingency operations. However, an examination of emerging U.S. capabilities shows that in many respects our doctrine, equipment and training focus are still geared for a conventional European scenario.

Combining theoretical insights and historical observations with an analysis of contemporary conditions and capabilities, the study concludes that sustainment force multipliers will play a very critical role in optimizing force capabilities for peacetime contingency operations. As we expand our focus beyond Europe, to other worldwide contingencies, we must adjust our doctrine, equipment, and training to fully incorporate the valuable concept of force multipliers.

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ABSTRACT

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I - INTRODUCTION

Background and Significance

The purpose of this paper is to examine how sustainment force multipliers work to optimize force capabilities in peacetime contingency operations. The concept of force multipliers is a key element of U.S. doctrine that asserts we can fight with limited resources and win.[1] Many theorists use the notion of force multipliers to analyze the dynamics of conventional warfare.[2] As we decrease forces in Europe and shift our focus to other regions of the world, the concept of force multipliers will be valuable for examining the dynamics of peacetime contingency operations.

"Peacetime contingency operations are politically sensitive military activities normally characterized by short-term, rapid employment of forces in conditions short of war."[3] Contingency operations use military capabilities during crisis situations to intervene around the world in order to influence regional power balances, to shape decisions, and to protect vital national interests. These operations frequently occur in hostile and austere environments away from customary facilities. Additionally, unique restraints and constraints will govern the use of military forces in these type operations.[4]

Such operations pose a complex challenge for commanders and planners. Force multipliers are an

important part of the operational planning logic that will help commanders and planners optimize resources and capabilities in order to achieve the desired end state of the contingency. Even though our doctrine exhorts operational planners to use force multipliers, it fails to fully develop the concept with regard to the exact nature and utility of force multipliers as operational planning factors. The goal of this paper is to help the operational artist better understand how sustainment force multipliers work to optimize and enhance force capabilities in peacetime contingency operations. The intent is not to provide a cookbook solution, but rather to provide a structured approach to understanding how force multipliers impact on operational level analysis, planning, and execution.

There are several categories of force multipliers which include human, environmental, and organizational. The organizational category includes firepower, maneuver, and sustainment type multipliers.[5] Sustainment multipliers are critical at the operational level and especially in complex peacetime contingency operations. However, current literature fails to fully address them in sufficient detail.[6] Thus, I focused specifically on how sustainment force multipliers work to optimize contingency force capabilities.

Methodology

Goal. FM 100-5, Operations, states that the

principal task of the operational commander is to mass superior capability at the decisive time and place in order to achieve strategic goals.[7] Force multipliers play a key part in this massing process by increasing total force capabilities. My research goal is to examine sustainment force multipliers from a theoretical, historical, and contemporary perspective to determine how they work to optimize the specific capabilities that the commander must mass to be successful within the constraints and restraints of peacetime contingency operations.

Criteria. As the basis of my criteria, I used the principle of mass, as described in JCS Pub 3-0, Doctrine For Joint Operations,[8] combined with the five imperatives that govern successful low intensity conflict operations (LIC) described in FM 100-20. These tenets include political dominance, unity of effort, adaptability, legitimacy, and perseverance. These tenets serve as a foundation for successful LIC planning and operations.[9] This combined criteria enabled me to examine how sustainment force multipliers worked to increase mass within the constrained environment of low intensity conflict. I used the expanded criteria in Appendix B to evaluate the evidence.

Scope. TRADOC Pam 11-9, (Draft)Blueprint of the Battlefield, describes the battlefield functional areas for the operational level of war. I used the functional

area of support to set the limits of my research. See Appendix C for a detailed discussion.[10]

Procedure. I used a focused, comparative and structured approach to conduct the research and analysis. The approach is focused because it deals only with operational sustainment force multipliers. It is comparative because it examines how these multipliers work from a theoretical, historical and contemporary perspective. It is structured because it uses a research framework of criteria based questions to guide data collection and analysis.[11]

Evidence and Sources. As evidence, I used theoretical insights combined with observations from historical and contemporary analysis. My primary sources included historical records, doctrinal publications and force structure documentation. Secondary sources included unit after action reports, lessons learned, articles and related studies.

II - FORCE MULTIPLIER THEORY AND CONCEPTS

Force Multipliers and Military Theory

Military theory is a set of basic principles that governs or explains military activities. These principles provide a basis for developing doctrine and assist commanders and planners in the successful conduct of military operations at any level. Theory identifies and explains the "major elements, processes, structures,

variable factors and patterns of interaction that shape and affect the outcome of military opinions."[1]

The concept of force or combat multipliers[2] is an important part of military theory that seeks to explain how key variables and factors impact on the elements, processes and design of military operations. In the broadest sense, a force multiplier is a tangible or intangible variable that increases the combat value and overall capability of a military force.[3]

Numerous military theorists, past and present, have examined the key role of force multipliers in military operations. Sun Tzu emphasized the importance of making preliminary estimates or calculations during the planning process. He concluded that such calculations, as part of a rational and analytical planning process, significantly increased the chance of success. This rational planning process included the comparison of relative force capabilities and involved the weighting of "various elements and factors."[4] These included morale, weather, terrain, generalship and doctrine.[5]

Jomini proposed a fundamental principle of war which involved using the optimum combination of available forces and capabilities to achieve mass at decisive points.[6] He defined strategy and tactics as the art of concentrating and employing massed capabilities at the decisive point. He concluded that a good principle or maxim of war was one which resulted in the "employment of the largest sum of means of action at the opportune

moment and point."[7] Jomini recognized that operational analysis and planning were the basis for achieving the optimum force combinations. He also understood that factors such as mobility could have a multiplicative effect on force capabilities and thus should be carefully planned for.[8]

Clausewitz noted that the outcome of engagements is shaped by several elements which include: numerical advantage, the fighting value of forces involved and lastly, all the "variables arising from the purpose and circumstances of the engagement."[9] He gave great emphasis to the decisive nature of numerical advantage. But, he also noted that even in the absence of overall numerical advantage, a skillful commander could employ his forces to achieve "relative superiority" at a decisive point.[10] He defined relative superiority as the "skillful concentration of superior capability and strength at the decisive point."[11] He recognized that through careful analysis and planning, a commander could optimize his combat power through the proper mix of unit strength, force effectiveness and combat variables.

Sun Tzu, Jomini and Clausewitz recognized the importance of understanding how key variables or force multipliers contributed to relative capabilities and combat power. More recently, other theorists have developed the concept of force multipliers even further. They give valuable insights into the utility and

function of force multipliers on the modern battlefield.

Richard Simpkin examines force multipliers from a futuristic perspective in the context of his views on 21st century warfare. He defines a force multiplier as a factor by which one can multiply or increase force capabilities and "combat worth." He categorizes multipliers as fighting multipliers, maneuver multipliers and human multipliers. Within each category he describes "intrinsic" multipliers which come from within the force and "extrinsic" multipliers which develop from the environment and circumstances.[12]

Simpkin defines fighting multipliers as few in number and primarily related to the physical fighting power in positional type warfare. Terrain is an example of an extrinsic fighting multiplier which traditionally gives the defender a three to one advantage.[13] In contrast, maneuver multipliers are related to the tempo of mobile forces executing maneuver warfare. Unlike fighting multipliers, maneuver multipliers operate in a cyclic fashion and produce a synergistic effect which contributes to the progressive generation of momentum and tempo.[14] Fuel capacity is an example of an intrinsic maneuver multiplier.[15] Lastly, human multipliers include generalship, training, fitness, and morale. These can also produce a synergistic effect.[16]

Simpkin also introduces the reciprocal notion of a "demultiplier," which he describes as a spoiling factor.[17] For example, terrain may be a fighting multiplier for

the defender, and also a maneuver demultiplier for the attacker. This notion highlights the complexity of the force multiplier concept, which Simpkin succinctly summarizes as the combined and synergistic effects of variables which increase the overall relative combat worth or potential capability of a force.[18]

Huba Wass de Czege discusses force multipliers in the context of Airland Battle Doctrine. He gives emphasis to both the tangible and intangible aspects of combat power. He views force multipliers as an important part of the fundamental Airland Battle operational concept that seeks to use maximum combat power to gain the initiative and to throw the enemy off balance and then to follow through rapidly.[19]

He defines force multipliers as "supporting assets that augment the disruptive and destructive effects of combat forces."[20] Examples include electronic warfare, minefields, deception, obscurants, and sophisticated combined arms combinations.

Wass de Czege has also developed a model which he uses to examine how more than 80 different variables contribute to generating and sustaining relative combat power.[21] By his definition, many of these variables are force multipliers. In contrast, using Simpkin's broader definition, almost all of these variables would be considered multipliers.

Trevor Dupuy developed the Quantified Judgment Model

(QJM) as a tool used to examine historical combat experience for the purpose of gaining a better understanding of how the elements, processes and variables of combat interact.[22] The elements of combat are "forces, circumstances and doctrine." The major combat processes include "movement, attrition, command, friction, suppression, disruption and effectiveness."[23]

Dupuy defines force multipliers as the circumstances or variables of combat that enhance or degrade the capabilities of a military force. He separates force multipliers into three categories of variables; environmental, organizational, and behavioral.[24]

Dupuy uses the QJM methodology to examine how force multipliers have worked in historical case studies. As the name implies, the QJM methodology requires that variables be quantified for use in the model. There are many variables in military operations that lend themselves to quantification. However, other variables such as leadership, morale, training, momentum and sustainment are not easily quantified. Dupuy uses a composite factor to represent the total impact of all the intangible force multipliers that he has not quantified in the computation of combat power.[25] Dupuy's stated goal is to fill a void in the doctrinal literature which fails to fully develop the concept of force multipliers as a valuable planning tool.[26]

A Composite Approach to Force Multipliers

For the purpose of this paper I used a composite approach to force multipliers which combines the strengths of the various models. Dupuy's framework of variables is a useful structure for categorizing force multipliers. His methodology however, overemphasizes quantitative analysis at the expense of exploring the qualitative impact of critical intangible force multipliers such as leadership, morale and sustainment. In contrast, Simpkin and Wass de Czege have a broader approach to using force multipliers in operational analysis and planning. They both recognize that the planning process involves qualitative assessment in addition to quantitative analysis.

Additionally, Simpkin's linkage of force multipliers to the concept of mass is important.[27] Mass is "the concentration of means at the critical time and place to the maximum degree permitted by the situation."[28] Force multipliers act to amplify the potential capabilities of these concentrated means within the limits of the situation. Simpkin's notions of sufficient and minimum mass recognize that mass is constrained by upper and lower limits for each given mission and situation.[29] In this sense, mass is a unique concentration of specifically selected means within the given constraints and restrictions of the particular mission and situation. Force multipliers that do not contribute to mass or violate the operational parameters are useless

to the planner and may have a demultiplier effect.

Force Multipliers And The Operational Level of War

Force multipliers are applicable to all levels of warfare. There are distinct factors at each level that increase the overall capabilities of a force. Factors at the operational level will differ from those at the tactical level in terms of scope and dimension.

At each level of war there are certain major functions and tasks performed by soldiers, systems, and units during successful execution of missions and operations. The Army's Blueprint of the Battlefield is a draft concept that provides a useful framework for categorizing functions and tasks at each level of war.[30] These functions specify what a force does, not how it does it. Force multipliers increase or enhance the performance of these functions and tasks.

At the operational level of war, the Battlefield Blueprint identifies six operational operating systems (OOS) as "the major functions occurring in a theater or area of operation, performed by joint and combined forces in the successful execution of campaigns and major operations."[31] These OOS include movement and maneuver, fires, protection, command and control, intelligence, and support.

Operational art includes all activities at the operational level of war which are aimed at performing these functions in support of military forces that are

employed to attain strategic goals. These activities are accomplished through the design, organization and conduct of campaigns and major operations. These activities link tactics and strategy by establishing operational objectives in support of strategic goals, sequencing actions to achieve operational objectives, and applying resources to achieve and sustain these events. "These activities involve a broader dimension of time and space than do tactics. They also ensure that tactical forces are sustained and provide the means for exploiting tactical success."[32]

The essence of operational art is the concentration of superior capability against the enemy's center of gravity to achieve decisive success. [33] The concept of force multipliers is embedded in the operational planning logic that facilitates this process of concentrating superior capability.[34]

The concepts of mass and force multipliers are invaluable tools for analyzing relative force capabilities in during the operational planning process.[35] This analysis provides the objective basis to guide subjective judgments concerning how to optimize force capabilities.

Force multipliers are useful because they help the planner determine the nature and effects of measures required to fight outnumbered and win. "They provide essential guidelines for what can and must be done to optimize force capabilities."[36] The previously discussed

hybrid approach to force multipliers facilitates a systematic analysis of all the factors and force multipliers that increase force capabilities. This analysis will help the planner examine how force multipliers impact on various courses of action in terms of relative capabilities. This type of analytical process is an invaluable element of decision making.

Operational planning, supported by the analysis of force multipliers, is especially valuable in planning for peacetime contingency operations. Often, these operations will require a rapid projection of capabilities into a hostile and austere environment using long lines of communication.[37] Force multipliers help the operational planner increase, optimize and amplify the capabilities of the limited forces involved in a contingency operation.

Force Multipliers And Operational Sustainment

Throughout history successful commanders have demonstrated the ability to fully integrate sustainment into their operational level planning. The concept of sustainment is central to the operational level of war and goes beyond basic supply operations.[38] "Operational sustainment comprises those logistical and support activities required to sustain the combat power and capabilities of forces involved in campaigns and major operations."[39]

Operational sustainment is a key component of operational planning and involves both science and art. The science of sustainment produces limits of feasibility. The art of sustainment allows the planner to "expand the limits of feasibility to the maximum extent."[40]

Sustainment planning is an integral part of the operational planning process that develops a supportable plan. I agree with General Vuono that the FM 100-5 definition of synchronization would serve as a good definition for sustainment planning because it involves "the arrangement of battlefield activities in time, space and purpose to produce the maximum relative combat power at the decisive point."[41] Sustainment planning thus focuses resources in time and space to sustain the specific operational capabilities that are massed to accomplish the operational concept.

Operational sustainment clearly involves more than logistics issues only. It is a fundamental element of operational art, which in essence involves generating and applying superior capabilities at decisive points. "Sustaining these capabilities is the art and science of the logistician."[42]

Force multipliers are a valuable tool for the operational artist planning sustainment activities. They assist him in conducting detailed sustainment analysis that defines the limits of operational possibilities. They also provide options that

facilitate expanding the limits of feasibility by increasing or amplifying force capabilities.[43]

The operational operating system of support delineates specific functions required to sustain the operational force. These sustainment functions include manning, arming, fueling, fixing, supplying and transporting the force, maintaining sustainment bases, conducting civil affairs, evacuating non combatants and obtaining resources from other sources.[44]

I define a sustainment force multiplier at the operational level of war as any variable, related to the performance of these functional areas, that increases overall force capabilities and effectiveness. For example, a sustainment force multiplier can be a specific asset such as air and sea terminal operators. It can also be the cumulative effects of activities in one of the functional areas such as civil affairs. Finally, on a broader scale, it can be the beneficial effect produced by sustainment activities that are focused on meeting unique operational requirements, such as those established by the LIC imperatives.

Sustainment Force Multipliers And Contingency Operations

Operational sustainment planning and the use of sustainment force multipliers will be especially critical for peacetime contingency operations. These operations are characterized by short term, rapid

employment of forces under unique circumstances and in austere environments. Sustainment requirements may dominate the operation and may generate excessive demands on supporting forces.[45] Sustainment will always be a primary planning issue in this type of operation.[46]

The characteristics described in Appendix E reflect the complexity and difficulty involved in sustaining peacetime contingency operations. Other complexities exist because these type operations are usually politically sensitive, and "they must complement ongoing political and informational initiatives."[47]

In this complex operational environment, sustainment planning and the use of force multipliers will play a key role in the achievement of mass. Mass in peacetime contingency operations is the concentration of capabilities at the critical time and place to the maximum extent permitted by the situation. Unlike mid to high-intensity combat operations, achieving mass in peacetime contingency operations is constrained and restricted by the specific imperatives that govern the planning and conduct of LIC operations.[48] Thus, sustainment force multipliers must decisively enhance the concentration of key capabilities while adhering to these LIC imperatives.

III - HISTORICAL INSIGHTS

Background

I selected two case studies for analysis: Lebanon

1958 and Dominican Republic 1965. Each meets the doctrinal criteria for peacetime contingency operations. Both were successful operations and present a good contrast in terms of when and where they occurred. Also, each case has unique operational and sustainment complexities that provide valuable insights into how force multipliers affected sustainment operations in a peacetime contingency scenario.

I used the research framework at Appendix D to examine each case and to produce findings. The framework consists of specific criteria based questions and provided a structure for the assessment. I used the OOS framework at Appendix C to focus the analysis and to isolate operational sustainment functions.

Lebanon 1958

During the Spring of 1958 there were increased tensions throughout the Middle East region. There was continuing political and religious unrest in Lebanon. In July 1958, a bloody revolt in Iraq brought tensions to a new level.

On 14 July, 1958, facing very unstable internal conditions and fearing outside interference from Syria, the Lebanese government requested assistance from the United States. President Eisenhower approved the deployment of U.S. Forces to Lebanon for the purpose of protecting American lives and assisting the Lebanese government in the restoration of stability.

U.S. military forces began deployment into Lebanon on 16 July 1958. As marines from the US Sixth Fleet were conducting amphibious operations outside Beirut, elements of U.S. Army Task Force (ATF) 201 were staging near Munich, Germany. Army deployment began on 16 July with initial elements arriving in Beirut on 19 July.

U.S. Forces deployed into Lebanon without opposition. This began a three month period of peaceful stability operations, during which elections were conducted and relative stability restored. Even in the absence of combat operations, sustainment for ATF 201 was a substantial challenge.[1]

Force multipliers played an important role in these sustainment operations. They had a significant impact on several operational sustainment functions. These included distribution, maintaining sustainment bases, conducting civil affairs and obtaining support from other sources. Other functions operated at a minimal level due to the absence of combat operations.[2]

In several cases, force multipliers resulted in a clear increase of capabilities. By way of contrast, the absence of or failure to use force multipliers in many cases resulted in a demultiplier or spoiling effect that degraded force capabilities.

Force multipliers in the functional areas of civil affairs and external support had the greatest positive impact on sustainment operations and overall force capabilities. In spite of the military's deficient

civil affairs planning and the presence of only a few qualified Army civil affairs personnel, the US Embassy Staff was able to have a significant multiplier effect in this area.[3] The embassy had liaison teams and a Lebanese civil affairs committee that resolved critical issues in a number of key areas to include procurement of host nation resources, public security, legal matters, public safety, public transportation, civil information and general political affairs.[4]

Obtaining critical support from host nation sources also had a multiplier effect on force capabilities. Items procured included construction materials, engineer equipment with operators, medical facilities plus laboratory services, and various transportation services to include bus, rail, truck and stevedore assets.[5] Additionally, the US Embassy supported an inadequate military procurement section by establishing a liaison capability with host nation sources.[6]

Especially noticeable were the many missed opportunities where only a small investment of assets would have had a significant positive multiplier effect. In some of these instances there was a distinct spoiling or demultiplier effect due to these failures. Many of these missed opportunities occurred because of deficiencies in the sustainment planning process.[7]

The area of distribution was hit hard by this demultiplier effect. Air terminal operations were

graded due to inadequate air traffic control, poorly organized off loading operations, insufficient air terminal operators, and inadequate cargo handling capabilities in terms of equipment and personnel.[8] Sea terminal operations were severely degraded due to very poor combat loading procedures, insufficient terminal operations staff and lack of stevedore services early in the operation due to language problems.[9]

Civil affairs support activities were also degraded due to poor planning which resulted in insufficient staff personnel available to resolve critical issues.[10] This is particularly significant because civil affairs activities affected several other key sustainment issues to include procurement of supplies, facilities, equipment, and services.[11]

Of the five imperatives that govern peacetime contingency operations, political dominance and unity of effort had the greatest bearing on force multipliers in sustainment operations. Political dominance was not considered in early planning stages. It was not until the execution phase that political concerns became most prevalent after combat was avoided and peacemaking operations ensued. As a result, military stability operations assumed a "passive, impartial, and cooperative role in primarily a political struggle."[12]

There were several effects of this political dominance. First, it placed increased pressure on inadequate civil affairs activities. Additionally, it

restricted US Forces concerning the procurement of host nation support. Procurement under combat conditions is usually more direct and expedient. In this peacemaking role it was fraught with complex legal problems.[13] There was also the requirement to share key facilities with the Lebanese in order to minimize disruption of government operations in this volatile situation.[14]

Unity of effort with civilian agencies had a positive multiplier effect on sustainment operations and also contributed to ongoing political, social and economic initiatives. These civilian agencies included the US Embassy,[15] the Foreign Service Institute's Arabic Studies Center, and the American University Hospital.[16] Extensive coordination ensured mutual support which included linguists, liaison teams, area specialists,[17] civilian police augmentation, and intelligence support.

In summary, force multipliers significantly impacted on sustainment operations and thus on overall force capabilities during the Lebanon contingency. This impact included positive multiplier effects which increased force capabilities or mass. It also included demultiplier effects stemming from inadequate sustainment planning. These effects had a spoiling or degrading impact.

Dominican Republic 1965

In April, 1965, political turmoil in the Dominican

Republic developed into civil war that spread across the country's capital of Santo Domingo. The U.S. Embassy reported concerns that there were radical groups behind all the turmoil. President Johnson decided to deploy U.S. military forces into the Dominican Republic.

This deployment was to accomplish several key things; (1) protect American lives and property, (2) restore stability and, (3) to prevent a communist takeover of the government. U.S. Marine forces deployed to conduct evacuation and security operations. The 82nd Airborne Division followed as the operation quickly developed into an intervention and stability operation that would continue well into 1966.

There were almost 24,000 US soldiers, sailors, airmen and marines involved in this very complex contingency operation. It became a combined operation in May 1965 and US forces became part of the Inter-American Peace Force which included forces from six Latin American countries. The flexibility, innovation and adaptability of the American forces played an important part in this successful operation.[18]

US forces in the Dominican Republic were involved in various combat operations. However, as the situation began to stabilize, US forces were involved in predominantly non-combat actions. These included a wide variety of sustainment activities aimed at contributing to stability operations and security.

Many considered the intervention to be a highly successful operation that re-established political stability and prevented a communist takeover.[19] As is the case in many low intensity scenarios, sustainment played an important part in achieving political stability and legitimacy. In this regard, sustainment operations played a crucial role in this contingency operation and significantly contributed to its success.

As in the Lebanon contingency, force multipliers played a key role in operational sustainment activities during the operation. They had the most significant impact in the areas of civil affairs, distribution, and obtaining support from other sources. Other sustainment functions operated at somewhat routine and consistent levels due to restraints on combat operations and early transition to peacemaking and stability operations.[20]

Once again force multipliers produced a clear increase in capabilities in several areas. Also, the demultiplier or spoiling effect caused by the absence or failure to use force multipliers was obvious in a number of examples.

Once U.S. forces were in place and the limited initial combat operations were terminated, there was a massive shift in the overall operational focus toward the conduct of stability operations. The goal of the stability operations was to re-establish a "climate of order in which political, economic, sociological and other forces could work in a peaceful environment to

establish a legitimate and functioning government."[21]

During the stability operations phase, which lasted more than a year, activities in the sustainment area of civil affairs had a tremendous multiplier effect and contributed immeasurably to the success of the operation.[22] These activities included governmental functions in the areas of public safety, welfare, health, education, and labor. They also included economic functions in the areas of banking, agriculture, food supply, property control and public facilities.[23] Massive amounts of medical care, food supplies, clothing and engineering support were committed as part of the civic action programs aimed at alleviating the side effects of the revolution.[24]

As in the Lebanon operation, there were many opportunities where a small investment in terms of personnel, equipment or procedures would have produced a clear multiplier effect. In a number of these instances there was a distinct demultiplier effect caused by this failure or missed opportunity. Poor planning once again was the cause for many of these demultipliers.[25]

The area of distribution was hit particularly hard. As in Lebanon, air terminal operations during the early phases were largely ineffective.[26] Several demultipliers contributed to this. To begin with, improper rigging of heavy equipment, caused massive congestion during initial unloading operations.[27] This

was compounded by the late arrival of air terminal operators, sustainment base operators and appropriate material handling equipment (MHE), all of which were delayed during the initial deployment due to conflicting priorities. The result was that sustainment base set up and operation were severely delayed. Other demultipliers in the area of distribution included: an inadequate communication link to the CONUS Logistics Coordination Center,[28] rigid automatic resupply procedures that could not adjust to changing needs and an initial shortage of transportation assets[29]

Efforts to obtain support from other sources were degraded by a failure to anticipate the need for extensive procurement operations. Thus, procurement personnel arrived late, and guidance for procurement funding was inadequate.[30] The absence of sufficient procurement personnel and guidance degraded attempts to obtain critical outside support.

Adhering to the imperatives that govern peacetime contingency operations had a positive impact on force multipliers and sustainment activities during the operation. Political dominance was the overriding imperative. As General Bruce Palmer, Commander of US Forces noted, political objectives affected military activities to a much greater degree than ever before.[31]

Political considerations were the primary aim of stability operations. The goal was to restore an effective, legitimate and functioning government.

Sustainment activities significantly enhanced U.S. capabilities during the stability phase. Civil affairs activities accomplished many critical tasks during the stability phase, ranging from humanitarian assistance to repairing public utilities. Additionally, U.S. sustainment operations provided extensive logistical support for the combined inter-American peace forces.[32]

Unity of effort also had a positive multiplier effect on sustainment operations. It enabled U.S. forces to overcome a critical shortfall in civil affairs teams.[33] The unified efforts of U.S. civil affairs personnel, the embassy, USAID, CARE, labor organizations, private transportation agencies and local police[34] resulted in extra humanitarian assistance, critical labor services for port operations, local police security for critical facilities, and additional transportation assets.[35] This significantly increased sustainment capabilities.

Adhering to the imperative of adaptability insured that sustainment operations were able to overcome many difficulties. Adaptability was absolutely critical. Often, "success or failure depended on knowing when to throw the book away,"[36] and to look for a creative solution that made sense and worked. General Palmer, Commander of the U.S. forces, noted that combat units had to often execute tasks which had little relevance to their normal military duties, such as distributing food

and water or collecting garbage.[37]

Legitimacy was the ultimate goal of extensive civil affairs activities. These activities focused on rebuilding governmental functions in the areas of public utilities, finance, safety, welfare, health, education, and labor. Success in these areas helped to establish and sustain the legitimacy of the Dominican Republic government as the crisis subsided. Thus, by working to restore legitimacy, sustainment activities increased U.S. force capabilities during stability operations.[38]

In the final analysis, the Dominican Republic Contingency Operation yields some valuable insights into the impact of force multipliers and demultipliers on sustainment operations in a peacetime contingency environment. It is significant that many of the observations from the Lebanon contingency operation were very similar to many in this case.

IV. - CONTEMPORARY ANALYSIS

Background

An assessment of the 1983 Grenada Operation is a good backdrop for examining the role of sustainment force multipliers in a modern peacetime contingency.[1] Details from this assessment are provided at Appendix F.

A survey of various contingency issues, to include the threat, emerging U.S. doctrine and emerging U.S. capabilities supplements the Grenada assessment. This serves as a basis for evaluating the potential role of

sustainment force multipliers in the contemporary contingency environment.

The Contemporary Contingency Environment

In 1986, General John R. Galvin challenged military thinkers to move toward a new paradigm which encompasses what he called "uncomfortable wars."[2] General Gordon R. Sullivan responded to this challenge by initiating a series in Military Review to explore the dimensions of LIC and military operations short of war. He concluded that decades of preoccupation with the most dangerous but least likely Warsaw Pact threat had led to an imbalance in our force structure and doctrine.[3] He pointed out that increasing regional instabilities in the Third World also pose a serious threat to our security interests. To protect these interests he concluded that our Army must be able to execute an array of contingencies in an environment short of war.[4]

It is especially important to note that many Third World nations have undergone dramatic qualitative and quantitative expansion of capabilities.[5] With access to modern and sophisticated weaponry, many of these nations possess military forces that now pose a significant threat that goes far beyond the limited capabilities of Panama's "Dignity Battalions."

Looking beyond the recent past to our nation's future challenges and opportunities, General Colin Powell recently observed that we are entering a historic

period of transition.[6] He believes that our approach to the future should be with "a strong determination to reshape history and work for lasting peace."[7] He is also quick to point out that in spite of a reduced Soviet threat, the world is still dangerous and that there are many other potential threats to our nation. To protect ourselves, as we move forward to take advantage of historic opportunities, he concludes that we need an array of joint forces ready for any contingency.[8]

Another futuristic point of view concludes that changes in the Soviet Threat, enduring regional violence and a failing U.S. economy will combine to dramatically change and shape the Army's role, size and structure.[9] Instead of a passive deterrent force, the Army, according to this view, will become an "affirmative instrument for achieving national purpose."[10] By developing an expanded warfighting doctrine with emphasis on "small wars", the Army could logically embrace a radical new operational concept of intervention in which contingencies are the rule.[11]

There is a wide range of views concerning the future. But, there is agreement that the Army of the future must be "versatile, deployable, lethal," globally oriented, and clearly able to execute worldwide contingency operations.[12]

It has taken several years for our thinking to shift away from a preoccupation with the Soviet threat. The doctrine development process is even slower and more

deliberate. During my assessment of current and emerging contingency doctrine, I focused specifically on sustainment functions and the potential role of sustainment force multipliers.

This assessment revealed several shortcomings in the current doctrine. For example, there is still a overriding focus on the the NATO scenario. Yet, contingencies are not totally neglected. Much of the sustainment doctrine written since Grenada contains valuable insights based on our historical contingency experiences.[13]

In addition to still being NATO oriented, much of the doctrine dealing with contingencies is scattered among various service manuals and joint publications with some duplication. An unpublished draft field manual for contingency operations does have a useful consolidated sustainment section, but its focus is primarily tactical.[14]

The most significant shortcoming in contingency related sustainment doctrine is a philosophical deficiency. As General Vuono noted, sustainment is at the center of operational planning and must include a balance of science and art. Scientific sustainment defines the limits of operational feasibility for the planner, while the art of sustainment allows the planner to "expand the feasibility envelope to the fullest extent possible."[15] Doctrine should include a balanced emphasis

on both.

However, the tendency is to emphasize only the scientific aspects of sustainment. Much of the the doctrine provides useful checklists, guidelines and considerations for the planner to use in determining the limits of feasibility and supportability. This shotgun approach is a good start, but the doctrine must take the planner beyond initial feasibility assessment and into the the realm of logistical art, where the concept of force multipliers is a very useful tool for the sustainment artist.

This is a serious but not universal deficiency. There are encouraging exceptions that go beyond scientific feasibility assessment. Field Manual 100-10, Combat Service Support, is the capstone doctrine for army sustainment operations and projects a distinctly different sustainment philosophy. It states that the sole measurement of successful sustainment is how well it optimizes the commander's ability to generate combat power at the decisive time and place.[16] Optimizing available means involves stretching or enhancing capabilities which is the role of force multipliers.

JCS Pub 4-0, Doctrine For Logistical Support of Joint Operations, sets forth capstone doctrine for sustaining joint operations. It also takes the planner beyond estimating logistical feasibility of supportability. It builds on the estimate process using the notion of extending operational reach

(culminating point) which is defined as "the range at which the operational commander can mass and employ his capabilities."[17] Success at the operational level is seen as strongly linked to the art of using sustainment momentum to extend the commander's operational reach. Sustainment is also depicted as a "force enhancer."[18]

Additionally, JCS Pub 4-0 recognizes that operational reach and combat power are relative values. Thus, a decrease in enemy capabilities results in a relative increase in friendly capabilities. Based on this notion, the targeting of enemy sustainment capabilities in order to create a degrading or demultiplier effect, can be used to create a more favorable balance.[19]

A U.S. Marine logistician described "logistical preparation of the battlefield" as a pro active approach to sustainment planning that develops and employs potential force multipliers.[20] This approach must be embedded in our contingency doctrine in order to take us beyond mere scientific feasibility assessment.

I also assessed current and emerging capabilities from a contingency planner's perspective. Again, I focused specifically on operational sustainment functions and the potential role of sustainment force multipliers. Capabilities result from a combination of organizations, personnel, equipment, training and operating procedures. Each of these areas is a

potential source for force multipliers.

A number of key initiatives to upgrade critical sustainment capabilities offer great potential for force multipliers. These include logistics-over-the-shore (LOTS), palletized load system (PLS), MHE, airdropping, automation technology, and repair capabilities for ports and airfields[21] Procedures such as logistical pre-positioning, host nation support, scavenger logistics and the logistics civil augmentation program also offer potential for sustainment force multipliers.

Finally, sustainment training can produce valuable lessons and reinforce critical skills that can in turn have a multiplier effect. The wide range of training activities has recently included actual sustainment operations for contingency exercises in Honduras, Panama,[22] and Costa Rica.[23] Additionally, automated simulation technology such as SIMNET[24] offers remarkable potential for training operational sustainment planners in the art of using force multipliers to optimize contingency force capabilities. A range of simulations are available to support sustainment training.[25]

In summary, this assessment has highlighted some of the key facets of the contemporary contingency environment in terms of senior leader perceptions, the threat, doctrine and force capabilities. Facing austere conditions and a sophisticated threat, today's contingency force commander must rapidly mass and employ his capabilities within the complex restraints and

constraints of the peacetime contingency environment. It is clear that sustainment force multipliers will play a critical role in this process.

V - SUMMARY, CONCLUSIONS AND IMPLICATIONS

Summary and Conclusions

Theoretical. The concept of force multipliers is an important aspect of military theory that seeks to explain how key variables and factors impact on military operations. Numerous theorists, past and present, have recognized the importance of understanding how various force multipliers work.

In peacetime contingency operations, force multipliers produce an increase in mass by amplifying the capabilities of specific means concentrated at critical times and places. However, this increase must occur within the constraints and restrictions defined by the imperatives of low intensity conflict.

The essence of operational art is the concentration of superior capability in order to achieve decisive success. Sustainment planning is a fundamental element of operational art that focuses resources in time and space in order to sustain operational means that are massed or concentrated to achieve specific ends. The concept of force multipliers is embedded in the operational planning logic that achieves concentration and sustainment of superior capability. Force

multipliers provide the operational planner with a valuable concept for optimizing force capabilities.

Given the relative nature of superior capability, it is significant that force multipliers which fail to contribute to mass, or violate the imposed operational parameters, may in fact create a spoiling or demultiplier effect. This is important to the planner for two reasons. First, he must seek to avoid such adverse effects. Secondly, a relative gain can be achieved by creating a demultiplier effect through the targeting of enemy sustainment force multipliers.

Historical. Experience in three peacetime contingencies demonstrates that sustainment force multipliers had a significant impact on the concentration and employment of forces in each operation. In several situations force multipliers resulted in a clear increase in capabilities that directly contributed to overall operational success. In contrast, there were instances where inadequate planning led to demultiplier effects which degraded overall capabilities. This could have proven very costly if the intensity of combat actions had been higher.

In each operation, the imperatives of low intensity conflict exerted both constraining and restricting effects on the process of concentrating capabilities. The constraining effects focused the employment of mass and the use of sustainment force multipliers. The restricting effects limited how sustainment force

multipliers could be used to increase mass. Adhering to the imperatives facilitated the use of force multipliers, while violations or neglect of imperatives tended to produce a demultiplier effect.

Contemporary. An assessment of the contemporary contingency environment indicates that senior military thinkers believe that contingencies will be the operational challenge of future. The future peacetime contingency commander may very well confront highly sophisticated threat forces in austere, hostile and volatile conditions. His greatest task will be to mass and employ his capabilities, as rapidly as possible, within the complex parameters of modern contingencies. Emerging contingency doctrine will establish key concepts which guide the employment of emerging capabilities. In another sense, emerging doctrine will provide the ways to employ available means in order to achieve desired ends.

Operational art is the process of selecting the best ways to employ the means.[1] The operational planner uses doctrine, capabilities, and force multipliers to design his art for peacetime contingencies. In some situations the means do not support the ends. In these situations, the planner can use force multipliers to offset some of the capability shortfall.

Implications

Are we ready for a modern peacetime contingency

operation? Will sustainment force multipliers continue to play a significant role?

Operation JUST CAUSE has been called a "textbook example of rapid deployment" that proved the worth of existing doctrine and capabilities.[2] The capture of Noriega was seen as the completion of the final operational objective. Yet, what remained was the rebuilding of the Panamanian political system, economy, police force and civil infrastructure.[3]

It is interesting to note that JUST CAUSE was considered by many to be successful with the termination of combat operations. Yet, as combat forces redeployed, civil affairs teams and military police elements were just beginning the extensive nation rebuilding process.[4] This seems to go against the primacy of LIC imperatives such as political dominance, legitimacy and perseverance.

Key sustainment functional areas are still involved today in the ongoing rebuilding process. One wonders if planners considered these during the early planning phases of the contingency. It was follow-on forces, which included a contingent of light infantry and military police, that were given the job of restoring order.[5] Yet, it was destructive looting and collapse of public order during the initial phase that caused mixed feelings of helplessness and resentment among many Panamanians.[6] Civil affairs activities seemed to

have been an afterthought. One week after the beginning of JUST CAUSE, the Army was still asking for volunteer civil affairs specialists from the Army Reserves. Needs included the whole range of civil affairs specialties to include public utilities, transportation, sanitation, health, law enforcement, education and banking.[7]

The critical nation rebuilding tasks began the first day of the operation. Yet, critical sustainment capabilities needed for the rebuilding process were part of the follow-on forces which were still being mustered eight days after the operation began.

Was JUST CAUSE a success? Many would look at the combat phase and say yes. I would say the jury is still out. Success will be a measure of the long term recovery and ultimate viability of the Panamanian government and its economy. Critical sustainment multipliers like military police forces and civil affairs teams would have had a far greater impact towards achieving this final goal if they had been employed earlier in the operation. Pre-positioning of civil affairs teams and military police elements would have been both feasible and smart.

What does this say for emerging contingency doctrine and capabilities? Military planners enjoyed advantages not normally found in a peacetime contingency operation. These included a 12,000 man force stationed inside the country plus established facilities and airfields. They also enjoyed a planning lead time of up to 60 days

according to one source.[8] In spite of these advantages planners failed to incorporate critical sustainment force multipliers into the early phase of the operation.

Emerging contingency doctrine is scattered throughout numerous different publications. Clearly, it is still secondary in contrast to our NATO orientation. Its sustainment focus is still narrow. Instead of challenging the operational planner to use key sustainment force multipliers to expand and increase overall capabilities, the doctrine still focuses primarily on methodical feasibility assessment.

Something is broken in the planning business or our force structure, if the Army had to resort to a patriotic call for civil volunteer affairs specialists from the reserve forces. Today, these specialists are still proving to be critical force multipliers and are contributing immeasurably to the long term success of JUST CAUSE. How many other key sustainment multipliers are in the reserves and what demultiplier effect will their absence produce during the next contingency?

We enjoyed the advantage of secure facilities to support sustainment functions during JUST CAUSE. This is the exception rather than the rule. We need to press for continued development of critical sustainment capabilities like LOTS, PLS, MHE, pre-positioned stocks, and increased host nation support arrangements in order to support rapid projection of force in future

contingencies. Yet, it is often the unglamorous programs like LOTS which quietly absorb resource cuts. For example, spending for LOTS was reduced from 69 million in FY 89 to 7 million in FY 90.[9]

Finally, we must fully exploit our magnificent training capabilities in order to improve and sustain our planning and execution skills for complex peacetime contingencies. The Battle Command Training Program and the Combat Training Centers have great potential for training our planners in the art of using force multipliers to expand force capabilities in contingency operations. We can expect a high training payoff for contingency forces if we fully exploit these training programs in order to create challenging and complex peacetime contingency scenarios.

As we move into the future, we will continue to look beyond the containment of communism to the increasing potential for contingencies elsewhere in the world. We must work hard to ensure that our doctrine and capabilities are ready for these demanding operations.

Modern peacetime contingency operations pose an immense challenge. The operational planner must ensure that U.S. forces have superior capabilities and staying power, even in an austere contingency environment with complex constraints and restrictions, immature basing structure and long strategic lines of communication.[10] Sustainment force multipliers will be a valuable tool for planners as they face this challenge.

Appendix A - Key Terms and Concepts

Low Intensity Conflict is "a political-military confrontation below conventional war and above the routine, peaceful competition among states." U.S military operations in LIC fall into four broad operational categories which include: support for insurgency and counterinsurgency operations, combating terrorism, peacekeeping operations, and peacetime contingency operations.[1]

Conflict is an armed struggle or clash in order to achieve limited political or military objectives. It is often protracted, confined to a restricted geographical region, and constrained in weaponry and level of violence. Limited objectives may be achieved by the short, focused, and direct application of force.[2]

A crisis results from "an incident or situation involving a threat to the U.S., its territories, citizens, forces, or vital interests. It usually develops rapidly and creates a condition of such diplomatic, economic, political, or military importance that commitment of U.S. military forces and resources is contemplated."[3]

Peacetime Contingency Operations are politically sensitive military activities normally characterized by short term, rapid projection of forces in conditions short of war. They are often executed in crisis

situations requiring the use of military forces to support diplomatic initiatives. They complement political, social, economic and informational initiatives.[4]

Mass is the concentration of superior combat power at the decisive place and time in order to achieve decisive success. This superiority results from the proper combination of the elements of combat power at the place and time of the commander's choosing. "The massing of forces, along with the application of the other principles of war, may enable a numerically inferior force to achieve decisive results."[5] "Another way of describing mass is the concentration of means at the critical time and place to the maximum extent possible in the given situation."[6]

A planning constraint is a limitation which restricts action in the sense that constraints are things that must be accomplished.[7]

A planning restriction is a limitation that prohibits a force from doing something.[8]

The notion of force or combat multiplier has several similar usages. Some of the common ones are below:

- A combat multiplier is a basic factor in developing combat power. They are used to enhance relative combat power based on the the situation plus

the commander's guidance and intent. Combat multipliers may include but are not limited to, combat service support, deception, electronic warfare support, PSYOPS, special munitions, military police and obscurants.[9]

- A force multiplier is "a factor by which one can multiply or increase force capabilities or combat worth." There are three broad categories; fighting, maneuver, and human.[10]

- A force multiplier is "a supporting asset that augments the disruptive and destructive effects of combat forces." Examples include electronic warfare and sophisticated combined arms employment techniques.[11]

- A force multiplier is a variable or factor, that is tangible or intangible, that increase the capabilities or combat value of a force. There are three broad categories which include: environmental, organizational, and behavioral.[12]

A <u>demultiplier</u> is a spoiling factor which may result from the enemy having and using a specific force multiplier. It implies a reciprocal type effect that may be caused by failure to take advantage of force multipliers needed to maximize one's own capabilities.[13]

An <u>operational operating system</u> "consists of the major functions on the battlefield performed for successful execution of campaigns or major operations."[14]

Appendix B - Criteria

Mass is the concentration of superior capability at the decisive place and time. Criteria: To be of value to the planner, sustainment force multipliers must work to optimize those specific force capabilities that the commander is massing to achieve his strategic goal.

Political Dominance is a key parameter that affects peacetime contingency operations even more than those in conventional war. Criteria: Force multipliers must work to optimize not only combat capabilities of the force, but must also work to optimize capabilities aimed at political objectives.

Unity of /effort in peacetime contingency operations requires integration and coordination not only with other military components, but also with governmental and civilian agencies. Criteria: Force multipliers must work to optimize collateral capabilities in support of political, social, economic, and psychological initiatives.

Adaptability is more than tailoring or flexibility which imply using the same techniques or structures in differing situations. It involves a willingness to modify, improvise and innovate to meet unique mission requirements. Criteria: Force multipliers must work to optimize adaptability for different options and tempos.

Legitimacy is a central concern. It is the willing acceptance by the host nation people of the right of a government to make and enforce decisions. Criteria: Force multipliers must work to optimize capabilities and actions which sustain and encourage the legitimacy of the host nation government.

Perseverance is crucial to success. It is a key criteria in assessing even short, sharp contingency operations. Long term goals cannot be sacrificed for short term gains. Criteria: Force multipliers must work to optimize long term goals over those that are more short term in nature.

Appendix C - Operational Operating System of Support

Operational Support OOS. Those logistical and other support activities required to sustain the force in campaigns and major operations within a theater (or area) of operations. Operational sustainment extends from the theater of operations sustaining base (COMMZ) or bases, or forward sustaining base(s) in a smaller theater, to the forward CSS units, resources and facilities organic to major tactical organizations. This theater of operations sustaining base, in performing its support functions, links strategic sustainment to tactical CSS.

Operational Support is almost always a joint effort. It is often a combined effort. It includes sustaining the tempo and continuity of operations throughout a campaign or major operation. There are functions related to sustainment that are included under functions in the Command and Control operating system, e.g., setting priorities; establishing stockage levels; managing critical materials; and obtaining support from civilian economy.

ARM. To provide for the replenishment of arms, ammunition, and equipment required for supporting US Army, other U.S. services, and allied operational forces in conformance with the operational commander's campaign or major operations plans in addition to routine theater consumption.

FUEL. To provide for the uninterrupted flow of fuel (Class III) to joint/combined operational forces in conformance with the operational commander's campaign or major operations plans in addition to routine theater consumption.

FIX/MAINTAIN EQUIPMENT. To provide for the establishment of facilities in rear areas for the repair and replacement of material and the establishment of policies on repair and evacuation of equipment in support of operational forces in campaigns and major operations.

MAN THE FORCE. To provide the uninterrupted flow of trained, and organizationally sound army units and replacements and to provide necessary personnel and health services support in the theater of operations for supporting campaigns and major operations and routine COMMZ support. This includes:

- Provide field, personnel and health services.
- Reconstitute forces.
- Train units and personnel.
- Conduct theater of operations reception operations.

DISTRIBUTE. To maintain the timely flow of stocks (all classes of supply in large quantities) and services (maintenance and manpower) to operational forces using joint or combined transportation means (over ground, air and sea lines of communications) in support of campaigns

and major operations and normal Theater Army (TA) support operations. This includes:

- Provide movement Services.
- Supply operational forces.

MAINTAIN SUSTAINMENT BASE(S). To build and maintain principal and supplementary bases of support for theater of operations sustainment functions in conformance with theater of war commander's guidance. This includes:

- Recommend number and location of sustaining bases.
- Provide sustainment engineering.
- Provide law enforcement and prisoner control.
- Provide security for key facilities and sustainment assets.

CONDUCT CIVIL AFFAIRS. To conduct those phases of the activities of a commander which embrace the relationship between the military forces and civil authorities and people in a friendly country or area or occupied country or area when military forces are present.

EVACUATE NONCOMBATANTS FROM THEATER OF OPERATIONS. To use theater of operations military and host nation resources for the evacuation of US forces dependents, US government civilian employees and private citizens. Organizations at various echelon provide support (e.g., medical, transportation, security, etc.) to the noncombatants; the support provided is analyzed under the appropriate function.

OBTAIN SUPPORT FROM OTHER SOURCES. The preferred way of providing support structure is through a combination of host nation, third country, contractor, and US civilian resources. Obtaining sustainment from other sources is a function related to operational sustainment. It refers to obtaining sustainment support from sources other than US Army CSS organizations and includes obtaining the following: host nation support, logistics civil augmentation, DA civilian support, and captured materiel. This function is analyzed under the operational C2 function.

Appendix D - Criteria Based Research Framework

Criteria. As the basis of my criteria I will use the principle of mass, as described in JCS Pub 3-0, combined with the five imperatives that govern successful military operations short of war described in FM 100-20. These tenets include political dominance, unity of effort, adaptability, legitimacy, and perseverance. These tenets serve as constraints and parameters for successful planning and operations in LIC environment. I will use the criteria based framework of questions below to evaluate the evidence.

(1). Mass is the concentration of superior capability at the decisive place and time. Criteria: To be of value to the planner, multipliers must work to optimize those specific force capabilities that the commander is massing to achieve his strategic goal.

- What was the desired end state, what sequence of actions was required to achieve it and how were resources be applied to accomplish these actions?

- What were the key capabilities being massed or concentrated for the contingency?

- How did sustainment force multipliers work to optimize these capabilities and thus facilitate mass?

- Were sustainment force multipliers considered during the operational planning process and analysis? Or were they considered on an ad hoc basis during the operation?

- Were there situations where sustainment force multipliers were not used but would have made a positive impact?

- Was there a negative impact on support and capabilities because they were not used?

(2). Political Dominance is a key constraint that affects military contingency operations short of war even more than those in conventional war. Criteria: Force multipliers must work to optimize not only combat capabilities of the force, but must also work to optimize capabilities aimed at political objectives.

- What were the political objectives?

- What specific capabilities were being massed to

achieve these political objectives?

- How did sustainment force multipliers help to optimize these capabilities?

- Were there missed opportunities where sustainment force multipliers were not used and would have made a positive impact on support activities or capabilities that were aimed at political objectives? If yes, why were they not used?

- Were there any violations of this tenet? Examples? If so, what was the impact in terms of support and capabilities?

(3). Unity of /effort in military operations short of war requires integration and coordination not only with other military components, but also with governmental and civilian agencies. Criteria: Force multipliers must work to optimize collateral capabilities that support political, social, economic, and psychological, and military initiatives.

- What other agencies and organizations were involved? What was their role?

- Was there any linkage of these organizations to operational sustainment operations?

- What kind of synchronization / integration / coordination was done to achieve unity of effort of effort with these organizations?

- How did the military COA support economic, political, psychological, and social initiatives?

- Did sustainment force multipliers work to optimize military capabilities to support these initiatives?

- Did duplication or disconnects occur due to lack of unity of effort?

- Were there missed opportunities where sustainment force multipliers were not used and would have made a positive impact on support / capabilities? If yes, why were they not used?

- Were there any violations of this tenet? Examples ? If so, what was the impact in terms of support and capabilities?

(4). Adaptability is more than tailoring or flexibility which imply using the same techniques or structures in differing situations. It involves a willingness to modify, improvise and innovate to meet unique mission requirements. Criteria: Force multipliers must work to optimize capabilities that are readily adapted to different options and tempos.

- Did sustainment force multipliers facilitate innovation, improvisation and modification in order to optimize key capabilities?

- Did mission analysis, intelligence and regional expertise provide a good basis for operational sustainment planning in this area?

- Were there missed opportunities where sustainment force multipliers were not used and would have made a positive impact on support / capabilities? If yes, why were they not used?

- Were there any violations of this tenet? Examples? (ie, rigidity in SOP) If so, what was the impact in terms of support and capabilities?

(5). Legitimacy is a central concern. It is the willing acceptance by the host nation people of the right of a government to make and enforce decisions. Criteria: Force multipliers must work to optimize those capabilities and actions which sustain and encourage legitimacy.

- What specific capabilities and actions were used to sustain/encourage legitimacy?

- How did the sustainment force multipliers work to help optimize these capabilities?

- Were there missed opportunities where sustainment force multipliers were not used and would have made a positive impact on support / capabilities? If yes, why were they not used?

- Were there any violations of this tenet? Examples? If so, what was the impact in terms of support and capabilities?

(6). Perseverance is crucial to success. It is a key criteria in assessing even short, sharp contingency operations. Long term goals cannot be sacrificed for short term gains. Criteria: Force

multipliers must work to optimize capabilities that support long term goals over those capabilities that are more short term in nature.

- What were the long term goals of the operation?

- What capabilities / actions were being focused on long term goals?

- How did sustainment force multipliers work to optimize these capabilities?

- Were there missed opportunities where sustainment force multipliers were not used and would have made a positive impact on support / capabilities? If yes, why were they not used?

- Were there any violations of this tenet? Examples? If so, what was the impact in terms of support and capabilities?

Appendix E - Sustainment Related Characteristics of Peacetime Contingency Operations

Typical sustainment related characteristics of a peacetime contingency operation may include the following:

- The political decision making process may result in short warning for planning and mobilization.

- U.S. Forces will dominate the sustainment situation and may be forced to support allied or indigenous forces involved in the operation.

- Little or no base structure or sustainment infrastructure will exist.

- Initial facilities will be severely limited.

- An intermediate staging area may or may not be available.

- The transportation network (road, rail, airports, seaports) will require early and rapid upgrade.

- The build-up of sustainment capabilities must begin early in the operation, continuing throughout.

- Extending lines of communication will require security and maintenance early in the operation.

- Strict priorities and cross leveling will be even

more important in a contingency environment.

- Fuel and ammunition for aircraft operations will be at a premium.

- Civil affairs and civil military operations will take on increasing importance.

- Detailed and integrated planning will be critical.

* These were taken from a reference text for the Center of Land Warfare, entitled Organization and Operational Employment of Air/Land Forces, by LTG (RET) John H. Cushman, (Carlisle Barracks. PA 1983), P 8-12.

Appendix F - Analysis of the 1983 Grenada Peacetime Contingency Operation

Grenada - 1983

On October 25, 1983, joint U.S. military forces initiated a peacetime contingency operation on the Caribbean Island of Grenada. The objective of this operation, code-named URGENT FURY, was "to rescue American citizens, restore democracy and to expel Cuban forces."[1] The operation, which was planned and conducted with remarkable speed, was successful. However, like previous peacetime contingency operations, URGENT FURY was characterized by a wide range of complexities and problems.[2] It provides a good case study for examining the impact of force multipliers on operational sustainment activities in a more recent contingency setting.

Unlike other military contingency operations since Viet Nam, the Grenada operation required a large scale and rapid concentration (mass) of joint forces.[3] Operational sustainment functions played a key role in the eventual concentration and employment of these forces. Force multipliers had an important impact on several of these sustainment functional areas, to include, civil affairs, obtaining support from other sources, distribution and maintaining sustainment bases.

As in the previous historical examples, sustainment force multipliers produced a distinct increase in force

capabilities. There were also several instances where the absence of, or failure to use sustainment force multipliers caused a demultiplier or spoiling effect.

After a slow start in the operation, civil affairs activities had a significant multiplier effect that increased as the operation proceeded. Pre-deployment planning was very inadequate[4] and this resulted in failure to anticipate requirements for specialized civil affairs skills which were critically needed.[5] According to one observer, after the initial phase, Grenada suffered from a number of serious social, economic, political and infrastructure problems.[6] However, specialized civil affairs teams that are trained and equipped to handle these type problems were in the reserve forces and were not available for the operation.[7]

In spite of this serious planning failure, civil affairs activities contributed immeasurably during stability operations. Key activities included population control, distribution of food and medical supplies, coordination of housing for displaced citizens, coordination for repair of public utilities, telephone and roads, and assisting in procurement of supplies from other sources.[8]

Again, due to a planning failure, efforts to obtain support from outside sources were severely limited during the initial phase of the operation because of a

lack of qualified and trained procurement personnel. Eventually, this problem was resolved and critical support was procured from outside sources, to include fuel, water, mortuary services, labor services and billeting.[9]

The sustainment areas of civil affairs and obtaining support from other sources had a positive multiplier effect on overall capabilities. However, with better planning, these areas could have potentially created even greater increases in force capability.

Planning failures in other sustainment functions also resulted in missed opportunities to increase force capabilities. Some of these, once again, produced a demultiplier or spoiling effect which actually degraded overall capabilities.

In the sustainment area of distribution, critical water and ammunition shortages occurred at several points.[10] Other supplies, to include food and medical supplies were diverted to support unforeseen requirements during initial prisoner of war operations.[11] These problems were further compounded by a lack of organic and host nation transportation assets during the initial phase.[12] Also, there were indicators that the routine resupply system was unresponsive to critical supply needs.[13] The cumulative demultiplier effect of these sustainment problems resulted in several operational delays and soldier overloading[14] which resulted in degraded force capabilities.

Another key area where a small investment would have made a tremendous multiplier effect was in organizing and maintaining sustainment bases. The Port Salines airfield suffered from severe congestion and backlog. A number of small factors had an incredible demultiplier impact on this airfield operation. These factors included no runway lighting, which precluded some night operations[15] limited ramp space, limited fuel storage, limited material handling equipment[16] and ground-air communications compatibility problems. The composite demultiplier effect of these shortfalls was serious congestion and delay in the build-up of forces. For example, it took almost four days for the 82nd Airborne Division to put in six battalions through Port Salines.[17]

Four of the five imperatives which govern peacetime contingency operations interacted with sustainment force multipliers to produce a distinct impact on the overall operation. Political dominance and legitimacy were overriding . During the initial phase, these imperatives restricted sustainment activities in the area of obtaining support from outside sources. During the stability operations, sustainment activities such as civil affairs and logistics support for the multi-national peacekeeping force had a positive multiplier effect toward supporting these constraints.

Adaptability is an imperative that requires

thorough sustainment planning based on early detailed mission analysis and good intelligence data. This did not happen in URGENT FURY. Senior joint sustainment planners were not included in early phases of the planning due to operational security reasons.[18] This planning failure severely limited the attainment of any significant adaptability in operational sustainment which might have overcome some of the previously discussed problems. Sustainment adaptability at the tactical level did, however, relieve some of the pressure on operational transportation requirements.[19] The final imperative, perseverance, was crucial to the success of URGENT FURY. Sustainment force multipliers had a key impact on long term effects of the operation. After the bulk of the combat forces had re-deployed, civil affairs, logistics assistance teams and military police elements played a crucial role in long-term stability operations which led to full restoration of the country.[20]

In the final analysis, URGENT FURY was an overall success. Operational sustainment force multipliers, working within the constraints and restrictions of peacetime contingency operations had significant effects on overall force capabilities. It is important to note the similarities between URGENT FURY and the Lebanon and Dominican Republic contingencies. In each case, the role of sustainment force multipliers was key. However, it is disturbing to note how certain recurring

demultiplier effects caused a degradation of force capabilities in all three operations. Had combat operations been more intense in each case, this degradation might have been very costly.

ENDNOTES

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2. Contemporary theorists like Huba Wass de Czege, Richard Simpkin and Trevor Dupuy use the concept of force multipliers. Past theorists, like Clausewitz, Sun Tzu and Jomini all emphasized the importance of analyzing battlefield variables or force multipliers.

3. U.S. Army Field Manual , 100-20, Military Operations in Low Intensity Conflict, (Washington D.C., 1989), p.5-1.

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5. These are three broad categories which encompass different types of variables discussed by modern theorists.

6. Dupuy's treatment of force multipliers was the most extensive of all I looked at. Yet, he backed away from a detailed examinations of sustainment multipliers because he had difficulty quantifying them.

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23. Ibid., p.56.

24. Ibid., p.56,259.

25. Ibid., p.105

26. Ibid., p.58.

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28. Trevor N. Dupuy, Dictionary of Military Terms, (New York, NY, 1986), p.145.

29. Simpkin, op. cit., 134.

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31. Ibid., 1-3.

32. Ibid., glossary 5.

33. U.S. Army Field Manual 100-5, Operations, (Washington D.C., 1986), p.10.

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35. Simpkin, op. cit., 136.

36. Trevor N. Dupuy, Understanding War, (New York, NY, 1987), p. 276.

37. U.S. Army Field Manual , 100-20, Military Operations in Low Intensity Conflict, (Washington D.C., 1989), p.1-11.

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40. General Carl E. Vuono, " Sustaining combat Power," Army Logistician, (July - August 1988), p. 3.

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