Operation Urgent Fury: Operational Art or a Strategy of Overwhelming Combat Power?

A Monograph
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OPERATION URGENT FURY: OPERATIONAL ART OR A STRATEGY OF OVERWHELMING COMBAT POWER? (U)

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ABSTRACT

OPERATION URGENT FURY: OPERATIONAL ART OR A STRATEGY OF OVERWHELMING COMBAT POWER? by MAJ J. Mike Simmons, USA, 58 pages.

With the ever increasing rise in regional conflicts and micro wars, Operation Urgent Fury may exemplify the types of short notice contingency operations we may be faced with in the future. To facilitate success in these potential conflicts, American military commanders must understand the critical elements of operational art and design.

This monograph examines operational art theory and doctrine as derived from both classical and contemporary theorists, and compares that doctrine with the planning and execution of Operation Urgent Fury. An analysis of the theoretical and doctrinal constructs revealed three common elements conducive to the application of operational art. First, the strategic and subsequent operational objectives must be clearly articulated and understood. Second, the campaign or major operation must be properly sequenced and sufficiently resourced to attain the objectives. Last, the six operational functions of command and control, intelligence, movement and maneuver, fires, support, and protection should be integrated into the planning and execution process.

This monograph concludes that the planning and execution of Operation Urgent Fury was not operational art. While some of the theoretical and doctrinal criteria were present, there was a general misapplication of the six operational functions when matched with the commander’s vision. Operation Urgent Fury was successful, however, due to the overwhelming application of superior combat power against a second rate opponent. Though this approach proved suitable in a single contingency such as Grenada, future multiple contingency operations which neglect the salient features of operational art in their planning and execution could prove disastrous.
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I. INTRODUCTION

The recent demise of the Soviet Union and the subsequent global shuffle in the balance of power have resulted in a dramatic shift in the US national military strategy. The significant forward presence of US forces on foreign soil which was so prevalent during the Cold War has been replaced by a strategy emphasizing Continental United States (CONUS) based power projection capability. With ever increasing incidents of regional conflicts and micro wars, the US invasion of the island of Grenada in 1983, Operation Urgent Fury, may typify the short notice contingency operations facing the US in the not too distant future.

Operation Urgent Fury was the first major, conventional military operation that the US participated in following the Vietnam War. It was planned and executed at a time when US military forces, particularly the Army and Air Force, were refining procedures derived from the newly published AirLand Battle doctrine contained in the 1982 FM 100-5, Operations. This doctrine emphasized a more fluid application of combat power. As such, it sharpened the appreciation of operational depth and maneuver through stronger service integration and emphasized the criticality of the operational level of war. However, the subsequent edition (published in 1986) was the
first to mention operational art in particular.  

Senior military officers proclaimed Operation Urgent Fury as a flawless triumph of the American military. Admiral Metcalf, the commander of the operation, stated that the American forces "blew them away." But the operation was not without its share of disappointments and shortcomings. Numerous post-invasion analysts have cited overwhelming combat power, the combining of sufficient force to ensure success while simultaneously denying the enemy the chance to escape or retaliate, as the compensating factor for incompetence and poor intelligence. These critics argue that a complete superiority of means was the primary reason for the US victory, relegating any operational design considerations as unimportant or non-existent at the time. Was overwhelming combat power the keystone to the U.S. triumph on the island of Grenada in 1983, or did the military planners apply operational art in the design and execution of Operation Urgent Fury, thus ultimately ensuring the victory?

Through an analysis of the theoretical and doctrinal underpinnings of operational art, the planning and execution of Operation Urgent Fury, and a comparison between the doctrinal constructs and the actual operation, this monograph answers that question.
Additionally, using Operation Urgent Fury as the baseline, the findings of this study may serve as useful components to consider when designing and executing a potential campaign plan for future short-notice, power projection contingency operations.

II. THEORY AND DOCTRINE OF OPERATIONAL ART

To lay the foundation for the subsequent analysis of Operation Urgent Fury, a theoretical and doctrinal framework is necessary. This framework provides the foundation and evaluation criteria needed to determine whether Urgent Fury was indeed operational art or just the application of overwhelming combat power.

Theory, in its broadest sense, is a way to explain a set of facts or circumstances. It is generally descriptive and provides the conceptual principles necessary to communicate a basic and common understanding for a particular subject. As such, theory serves as the primary frame of reference for thought and discussion on that subject and provides a baseline for further intellectual development. Sound theory should be both explanatory and predictive, inclusive and expansible, and transcend time and circumstances.

The concept of a particular level of war occurring between the strategic and tactical levels, commonly referred to today as the operational level, is not a
new phenomenon in the course of military theory. Identifying the actual inception of the operational level of warfare as a profoundly different concept when compared to the tactical or strategic levels is a subject open to heated debate, discussion, and disagreement. However, prior to the recognition and articulation of an operational level of war, strategy and tactics were almost exclusively the mainstays of military theory.

In his book *On War*, Clausewitz made a clear distinction between strategy and tactics. He felt that strategy determined the reason, timing, and location for battles and engagements, whereas tactics concerned the specific techniques associated with how battles were fought and won. Clausewitz based his theory primarily on the battles of Frederick and Napoleon, a time when military operations lacked the complexity of industrial age warfare. Careful analysis of Clausewitz, however, reveals elements of today's concept of the operational level of war interspersed throughout his book. In fact, though not defined as the operational level, the idea of linking operations and engagements to attain a strategic objective are an integral component of Clausewitz' concept of strategy.

Another notable theorist who contributed to the
development, understanding, and eventual recognition of the operational level of war was Antoine Henri Jomini. Like Clausewitz, Jomini never specifically articulated an operational level. In *The Art of War*, Jomini defined strategy as "the art of making war upon the map, [which] comprehends the whole theater of operations." Conversely, tactics to Jomini were the detailed techniques an army used to successfully wage battles and conflicts. However, closely associated to today's concept of the operational level of war was Jomini's idea of grand tactics, "the art of forming good combinations preliminary to battles as well as during their progress." Jomini, like Clausewitz, helped to lay the theoretical foundation for further development and refinement of the operational level of war.

Several Russian military theorists writing at the turn of the Twentieth Century can best be credited with developing the notion of the distinct attributes of operational warfare in general, and the key elements of operational art in particular. These Russian theorists, who based their assessments on thorough studies of the Russo-Japanese War, World War I, the Russian Civil War, and the Russo-Polish War of 1920, realized the nature of warfare had shifted dramatically. Further, they postulated that an
exclusive understanding of strategy and tactics alone was inadequate for the prosecution of future wars. Their theoretical analysis, combined with the changing nature of warfare, resulted in their recognition of an operational linkage between tactics and strategy.\textsuperscript{11}

The operational level of war then, recognized as a distinct category and form of military theory separate from tactics and strategy, can trace its roots to the Soviet Union during the period between the First and Second World Wars. Soviet theorist and General-Major Alexander Andreevich Svechin first applied the term operational art in his mid-1920 military writings and lectures. Svechin realized that the nature of war had undergone profound changes which mandated an understanding beyond the realm of tactics and strategy. Accordingly, in his 1927 book \textit{Strategy}, he used the term operational art to describe the gap between tactics and strategy, defining it as the "totality of maneuvers and battles in a given part of a theater of military action directed toward the achievement of the common goal."\textsuperscript{12}

Svechin was not alone in his quest to define and develop the concept of an operational level of warfare during this period of Russia’s history. In his 1929 book \textit{Nature of the Operations of Modern Armies}, former Russian brigade commander V.K. Triandafillov pursued
the concept through an examination of the ways and means necessary for preparing and practicing operational art. Triandafillov expounded upon Svechin's operational level by defining operational engagements as an "aggregate of blows and battles directed towards the achievement of the goals of an operation." He deduced that the key to Russia's development of operational art lay in the mobilization of conscript soldiers, the creation of a supporting industrial infrastructure, and the establishment of an efficient command and control mechanism, all oriented on simultaneous operations in depth.

Acting upon Svechin's and Triandafillov's theoretical base, Mikhail Tukhachevskiy fostered the adoption of several innovations posited to enhance the operational level of war. He said that battles in depth, brought about by mechanization, motorization, and airborne operations, were the key for successful application of operational art. His conceptualization of the effects of time, space, and mass as related to simultaneity and depth represented the full articulation of the Soviet view of operational art in the 1930s.

In summary, the Russian theorists of the 1920s and 30s built upon the theoretical foundations of tactical and strategic warfare as espoused by Clausewitz and
Jomini. Their major contribution to the theories of modern warfare, however, was in their recognition of the operational level of war as the missing link between strategy and tactics. They realized that warfare had changed and that an operational level now existed. Tactics and strategy would not be enough for future wars; operational art would be necessary to facilitate the creative employment of the ways and means available to a commander for the destruction of the enemy's capacity to wage war. Finally, a single decisive battle would no longer guarantee victory; simultaneous and sequential operations in depth appeared to be the wave of the future.

Numerous theories and theorists have expounded upon the original ideas of operational art put forth by the Russians, with today's theorists adding additional assessment criteria to the concept. Dr. James J. Schneider, a professor at the US Army’s School of Advanced Military Studies, has written numerous articles on the subject of operational warfare and operational art.

Dr. Schneider initially defines operational art as the use of "military forces to attain strategic goals through the design, organization, and execution of major campaigns and operations." According to Dr. Schneider, a new form of warfare based on operational
art emerged during the American Civil War. This form of war replaced the Napoleonic style of the strategy of the single point with campaigns which stressed simultaneous and successive operations.

Dr. Schneider describes simultaneous operations as "the lateral distribution of forces across a generally continuous [theater] front," with successive operations explained as a "deepening of [this] theater." Both of these characteristics, according to Dr. Schneider, were significant in that campaigns could no longer be determined by one decisive action.

Dr. Schneider adds to his definition of operational art as distinctly different from classical strategy by recognizing the importance of extended maneuver and deep battle. He postulates that in order to solve the complexity of simultaneous and successive operations, combined with extended maneuver and deep battle, a commander is required who possesses the requisite "tools, material, and creative ability"—an operational artist.

Just as a painter needs oils and canvas, and a sculptor needs clay and tools, so too must an operational artist have specific resources available to enable him to practice his art form. Dr. Schneider theorizes that there are eight conditions or criteria necessary for the practice of operational art. Weapons
technology must induce highly lethal battles dependent upon inter-battlefield maneuver. Logistics must be nearly continuous and capable of supporting distributed operations. Communications must be nearly instantaneous. Formations must have operational durability and endurance. The commander and staff must have operational vision and the ability to sequence activities toward the attainment of a common aim. The enemy should be similar in training, equipment, structure, and leadership. Finally, the country must be capable of a distributed capacity to wage war at the national level, and support the effort with continuous mobilization if necessary."

Like the Russian theorists who preceded him, Dr. Schneider's eight conditions conducive to operational art recognize that decisive battle by itself is no longer possible. Dr. Schneider's theory places the operational level of war as "the essential link between the strategic and tactical perspectives." While there are instances where a major operation may achieve strategic victory, Dr. Schneider's emphasis is on the distributed operation, which stresses deep maneuver and a series of battles as the key to operational art."

Colonel James M. Dubik, a former student at Fort Leavenworth's School of Advanced Military Studies, felt that the key to understanding operational art lay in
the concept of the campaign. Dubik, like the theorists before him, stresses the operational linkage between tactics and strategy. According to him, the campaign is the tool the operational artist uses to translate tactical victories into strategic successes. The campaign then, vastly different in scope and dimension from tactics, is Dubik’s defining element of the operational art. Operational art therefore attempts to "produce a decisive and crushing defeat on the enemy by breaking [his] will, paralyzing his ability to react, and destroying [his] cohesion” as efficiently as possible.

As a result of his study of General Grant’s 1864-65 campaign, Colonel Dubik outlined his concept of the campaign as the primary element of operational art. This concept is based on the successful application of four fundamental components: intellectual, psychological-physical, cybernetic, and harmonic. Dubik argues that these four components, when combined into an integrated whole, were the foundation for Grant’s successful application of operational art,” and have utility in the context of today’s operations.

Dubik feels that an intellectual capability is required in the commander in order to translate strategic aims into operational objectives. Successful campaign plans, and hence, operational art, require "a
creative process of the intellect." Thus, operational military commanders must take broad strategic directives and translate them into specific military action with a tactical perspective." This creative, intellectual act of judgement enables the commander to devise operational plans in accordance with the strategic situation.

Besides thinking ability, there is also a requirement for a psychological-physical component. Dubik cites three attributes within this category which foster the attainment of operational art. First, the armed force must be tactically proficient, cohesive, highly trained, and well-equipped. Further, unit leaders must have an understanding of commander's intent and how to translate it into subordinate objectives. Second, operational commanders must have sufficient space and infrastructure to execute and support an operational plan. Dubik cites the special relationship between the operational theater, the forces, and the aim of the campaign. Finally, an operational artist must have the political support of the government and society in order to see the campaign through.

Dubik sees the cybernetic component as essential due to the complex nature of modern campaigns and operations. Since an operational artist must make
decisions as the situation unfolds, he must have an appropriate cybernetic system capable of gaining, processing, and disseminating the requisite information conducive to operational maneuver."

Dubik's last element which contributes to operational art, the harmonic component, is really the successful integration and harmonizing of the first three. The operational artist must develop a plan which capitalizes on his intellectual capability, can be executed with available forces and infrastructure, and functions within the command system at his disposal.

In essence, Dubik's operational art is the smooth and efficient application of the available ways and means to accomplish the determined ends. It relies not only on military forces, but also on the proper use of terrain, deception, and the moral and physical domains of battle as well.

To review, the theoretical roots of operational art are steeped in the classical thoughts of Clausewitz and Jomini. Russian theorists then followed with a clear delineation of the operational level of war between strategy and tactics. They went on to define operational art with specific criteria in mind. Combining battles and maneuvers toward a common goal, the Russians emphasized the idea of simultaneous
operations in depth.

The theorists of today have expanded these original thoughts into a plethora of ideas on the nature and characteristics of operational art. Dr. Schneider recognizes the criticality of multiple distributed operations arranged simultaneously and successively throughout the depth of the theater. His eight criteria serve as a useful tool in evaluating the concept of operational art. Likewise, Dubik's four components of campaign planning build upon Schneider's attributes. Finally, just like Schneider, Dubik recognized the most important variable of operational art: the intellect of the commander.

Several of these aforementioned theoretical attributes of operational art have found their way into current Army and joint doctrine. Doctrine is the natural outgrowth of theoretical principles and ideas. Doctrine takes the accepted conceptual principles in a particular theory and transforms them into a more prescriptive set of procedures and techniques. Thus doctrine becomes the practical application of a theoretical concept. Similar to theory, doctrine also serves as a common frame of reference for thinking, training, and fighting. Ultimately, adherence to a common doctrine of warfighting is the glue that binds a professional military force together.
The Army's keystone doctrinal manual, FM 100-5, Operations, describes in detail how to think about the conduct of campaigns, operations, battles, and engagements, all geared toward quick, decisive victory. The operational level of war is recognized as "the vital link between national- and theater-strategic aims and the tactical employment of forces on the battlefield." As such, the composition of forces at this level will be inherently joint and/or combined."

Concepts concerning the application of operational art are not exclusive to Army doctrine; joint doctrine is also a major source of guidance on the subject. Operational art, which translates strategic guidance into operational and tactical objectives "through the design, organization, and execution of campaigns and major operations," determines when, where, and why forces are employed. Through operational art, commanders can use their soldiers, materiel, and time both effectively and efficiently in order to link tactical battles and engagements with the strategic aims desired."

To practice operational art, commanders require broad vision in order to determine how to employ their military forces in time, space, and purpose. Further, they must analyze the ends, ways, and means, balanced with acceptable risk, necessary to complete the
assigned mission. This analysis includes determining what military conditions will accomplish the strategic objectives, how to best sequence actions to produce the conditions, and how to apply the appropriate military resources to facilitate the sequencing. Commanders also practice operational art by synchronizing the six operational functions of command and control, intelligence, movement and maneuver, fires, protection, and support.

The first element of operational art, and arguably the most important, is the identification and delineation of the objective to be obtained. The operational objective is determined by the commander from an analysis of the strategic guidance provided. The objective is then articulated through a combination of a clear mission statement, commander’s intent, and a concept of the operation. These elements combine to provide the purpose, method, and end state expected of the operational force with respect to the enemy and terrain.

To facilitate the attainment of the operational objectives, commanders normally focus their efforts against the enemy’s center of gravity. The destruction of the enemy’s center of gravity, defined as his source of physical strength, will to fight, and freedom of action, is an essential element of operational art and
should prove decisive in achieving operational and strategic objectives."

Once the center of gravity is identified, the operational artist must design his campaign to go after the supporting decisive points. Decisive points, which are often geographically oriented, are the keys to getting at the enemy’s center of gravity. They assist commanders in gaining and maintaining the initiative. At the operational level, decisive points are prioritized, designated as objectives, and resourced to allow for their disruption, destruction, or seizure."

To complement his operational design, the commander should also designate lines of operation. These lines define the directional orientation of the force in time and space as related to the decisive points. By focusing combat power toward a desired end through the appropriate lines of operation, he facilitates the destruction or control of these decisive points. This, in turn, enables the commander to maintain freedom of operational maneuver and sustain the initiative."

Finally, attainment of the operational objective must be accomplished before the friendly force culminates. The culminating point, that point where the strength of the attacker no longer significantly exceeds that of the defender, is a crucial concept in
understanding operational art. It is not restricted to space or time, and could include psychological or moral factors as well."

The second element of operational art is the sequencing of operations and the application of resources. Here the operational artist must determine the most effective way to introduce his forces into the theater in accordance with the campaign objectives. This sequencing is generally dependent upon the identification of the enemy’s center of gravity matched against friendly air, land, sea, and space assets. By properly arranging operations in time and space, the operational artist gains leverage over his opponent by dictating the tempo of activities." Phasing, branches, and sequels assist the operational artist in sequencing and resourcing the operation.

Phasing enables the commander to focus on the distinct events of the campaign by defining the requirements in terms of forces, resources, and time. Campaign phasing, according to JCS PUB 5-00.1, JTTP for Campaign Planning, consists of prehostilities and predeployment, lodgment, decisive combat operations and stabilization, follow-through, and post-hostilities and redeployment." To enhance flexibility and enable the commander to maintain his freedom of action, branches and sequels, which are really alternative and
derivative plans to the original design, should also be considered as a part of the campaign plan. Through phasing and the consideration of branches and sequels, the operational artist attempts to overwhelm the enemy, remain unpredictable, and operate beyond the enemy's capability to react."

The third and final element which contributes to the practice of operational art is embodied in the six operational functions as defined by AFSC PUB 2, Service Warfighting Philosophy and Synchronization of Joint Forces. These functions provide the structure necessary to enable the operational commander to complete his campaign design. They assist the commander in synchronizing forces and activities in time and space, and serve as an analytical tool for the many complex tasks associated with the operational level of war."

Command and control (C2), the first of these functions, includes acquiring and communicating operational information, determining actions, directing and leading operational forces, and employing appropriate electronic countermeasures. Effective operational C2 is accomplished through the proper arrangement of personnel, equipment, communications, and facilities. All of these must combine to allow the commander to plan for and conduct his campaign plan.
Additionally, operational level C2 allows the commander to impart his vision, fix responsibilities, and focus effort toward the attainment of the strategic objectives.³

Operational intelligence, the second operational function, lays the necessary foundation for both the development and execution of the commander's campaign plan. It focuses primarily on the collection, identification, location, and analysis of strategic and operational centers of gravity. It must be timely, objective, accurate, and relevant to be of operational significance. Further, because operational intelligence is more difficult to obtain than tactical intelligence and therefore more uncertain, it demands a willingness to accept a higher degree of risk from the commander.⁴ But, similar to tactical intelligence, operational intelligence must also focus on the enemy's most vital source of power; his center of gravity.

The third function, movement and maneuver, is greatly influenced by the intelligence function. The commander practices operational movement and maneuver by properly deploying his forces to secure positional advantage before battle is joined and then following up with operational exploitation. Key to this concept is again properly identifying, then defeating the enemy centers of gravity which support both operational and
strategic objectives." The operational commander must control the terrain, sea, and air in his theater to facilitate this positional advantage, and to "set the terms of battle."\(^5\)

The fourth element, operational fires, stems directly from the commander's movement and maneuver concept. Fires are generally joint and/or combined, and are integrated extensively with the operational maneuver scheme.\(^5\) Usually operational fires are provided by the theater air forces, but today surface delivery systems such as the Tomahawk land attack missile can be utilized as well. Additionally, non-lethal means such as electronic warfare assets can be used to augment lethal capabilities. Whether lethal or non-lethal, operational fires should focus on three primary tasks: facilitating maneuver, isolating the battlefield, and destroying enemy critical functions and facilities.\(^6\)

The operational artist should consider the fifth function, protection, throughout the development of his campaign plan. Operational protection allows the commander to preserve his forces so they can be applied at the decisive place and time. It is comprised of three key elements: operational security, operational deception, and risk analysis and subsequent minimization.\(^7\) Additional protection considerations
include communications security, physical security, and the use of air defense systems.

The sixth and final operational function which contributes to the application of operational art is logistics. Operational logistics extends from the theater sustaining base to the forward combat service support units and major tactical formations. Logistics allow the commander to accomplish his operational objectives and extend his reach by lengthening the lines of communication. Additionally, by staging his logistical support forward in consonance with his phasing, the operational commander is able to increase his tempo relative to his opponent.

While not all inclusive, the preceding discussion of the theory and doctrine of operational art does provide several key constructs useful in defining its associated primary components. These criteria can serve as a valid evaluation tool for assessing operational design characteristics, irrespective of the campaign or operation being analyzed. Before determining whether operational art was applied in Urgent Fury in light of these constructs, however, the facts and circumstances surrounding the operation are presented.

III. OPERATION URGENT FURY

The seeds for the eventual US invasion of Grenada
were planted long before October 25, 1983. The administration of President Jimmy Carter suffered through numerous military and diplomatic setbacks in the late 1970s. During President Carter’s tenure the Strategic Arms Limitation Talks were not ratified; Cuban-Soviet influence dominated Angola; the Russians invaded Afghanistan; the US backed Nicaraguan government lost to Cuban backed guerrillas; and US special operations forces were humiliated in the Desert One fiasco. Based on that record, American military and diplomatic credibility was suspect throughout the world."

The tiny Caribbean island of Grenada experienced a peaceful socialist revolution in March 1979 whereby Maurice Bishop was installed as Prime Minister. After the revolution, the US became increasingly concerned with Grenada’s close ties with both the Soviets and the Cubans. In April 1979, the US ambassador went so far as to warn Bishop that the US was extremely dissatisfied with the expanded cooperation between Grenada and Cuba."

President Ronald Reagan, elected in 1980 on a platform which included the restoration of US power and influence abroad, viewed the Caribbean as a "vital strategic and commercial artery for the US." As such, he began to isolate Grenada through economic and
diplomatic pressure almost immediately upon assuming office."

Reagan was convinced that the Bishop government was bent on creating a communist-totalitarian society closely modeled after Marxist-Leninist ideals and committed to bringing Grenada into the Soviet bloc." The construction of air and communication facilities, plus increased ammunition and arms imports by Grenada, were viewed by the President and his advisors as contrary to US interests in the region. Further, President Reagan had evidence of Grenadian sponsored guerrilla training of neighboring island dissidents. To the President, this signalled the Grenadian intent, patterned after the Cuban model, of exporting regional subversion. Finally, President Reagan saw Grenada's economy as dangerously unstable, and therefore ripe for revolutionary activity and possible violence."

As the relationship between Grenada and the US deteriorated, diplomatic and military posturing by both countries increased. In 1981 and 1982, the US Navy conducted a series of Caribbean maneuvers dubbed "Ocean Venture." These exercises made little effort to conceal at least one apparent target: Grenada. Both exercises included a mock invasion of an island near Puerto Rico named "Amber," populated by "Amberdines." The exercises included joint components and featured a
hostage rescue scenario. Prime Minister Bishop responded to the provocative maneuvers by stressing the importance of the Grenadian self-defense force capability to counter an anticipated US invasion. He also hired a New York public relations firm to bolster Grenada's sagging image within the US.

By March of 1983, the situation between the two countries had worsened. Hostile rhetoric had increased to a feverish pitch. President Reagan went before the American public with an overhead photograph of the 10,000 foot international airport being constructed at Port Salines in Grenada. The inference was clear. Why did such a small Caribbean island need an airport capable of supporting large military cargo aircraft? Bishop flew to the US in June to see Reagan and attempt some type of dialog to resolve their respective differences. However, Bishop was not seen by Reagan. A junior diplomat in the State Department saw him instead with a clear message: Grenada must distance itself from Cuba if it wanted any US aid or face the potential consequences of increased ostracism in the region.

By October 1983, the differences between the US and Grenada were essentially irreconcilable. Bishop was also faced with tremendous internal unrest and dissension which led to his arrest and overthrow on
October 13 by members of the Grenadian Communist Central Committee. That same day, President Reagan, concerned about the safety of US citizens on the island, approved recommendations to begin the development of a specific set of plans for a non-combatant evacuation (NEO) of the approximate 700 American medical students located there.

After Bishop's overthrow, the Organization for Eastern Caribbean States (OECS) and the US were galvanized to action. On October 19, Bishop and several of his supporters were killed while attempting to regain power. Governments of the OECS were shocked and outraged by the apparent anarchy. Prime Minister John Compton of St. Lucia championed the idea of intervening in Grenada with a multinational force to stabilize the situation. Concurrently, the US began serious planning for a non-permissive NEO, and on October 20 diverted a carrier task force steaming for Lebanon to Grenada.

On October 24, the US was formally invited by the OECS (less Grenada) to participate in an invasion of the island. President Reagan approved the US plan on that same day, with October 25 scheduled as D-day. The situation and location were ideally suited for an invasion by the US: "small, inhabited by a disgruntled population -- it was a military planner's dream."
Reagan administration believed that invading Grenada would produce little threat to the US citizens on the island and would most likely result in favorable domestic political consequences. Additionally, such an invasion would cost very little, trigger only short-term international political dissension, and would dramatically address the problem of Communist proliferation in the Western Hemisphere.

Planning for Operation Urgent Fury was completed during approximately four days between October 21 and the actual invasion of October 25. Essentially starting from scratch, the plan was formulated by the commander of US forces in the Atlantic region, Admiral Wesley J. McDonald, and his staff. The planning can best be described as an ad hoc approach which combined individual service plans in an attempt to maximize capabilities against specific military objectives.

The plan designated a joint task force (JTF 120), under the command of Vice-Admiral Joseph Metcalf, as the operational headquarters on the scene responsible for execution. Special operations forces comprised of Navy SEALs, Army Rangers, and Delta Force Commandos were to work in conjunction with Metcalf’s force. Three task forces, naval carrier, army airborne, and marine amphibious, were subordinated to Metcalf. For planning purposes, Metcalf essentially cut the
island in half. The Marines were responsible for the north, the Army the south. Both forces were preceded by special operations elements tasked with securing key objectives such as the Port Salines airfield and with reconnoitering potential beach landing sites. D-day was set for October 25."

Despite a multitude of deviations from the basic plan and numerous unexpected occurrences resulting in minor setbacks, all major JTF objectives were secured by October 28 (D+3). Consolidation and mopping-up operations were conducted through November 2. The redeployment and peacekeeping phase commenced on November 3, with Vice-Admiral Metcalf transferring responsibilities for the island to Major General Edward Trobaugh, commander of the 82d Airborne Division. By December 15, with the exception of a 300 person contingent of military police, technicians, and support troops who were part of a multi-national peacekeeping force, all US combat forces had departed Grenada."

Operation Urgent Fury was over.

For all intents and purposes, Grenada has faded into obscurity since Operation Urgent Fury. With the exception of the recent turmoil in Cuba and Haiti, the Bush and Clinton administrations have not viewed the Caribbean as an important regional security threat. Contrary to US expectations, economic and political
achievements in Grenada since October 1983 have been limited. War damage has been repaired, some foreign investment has been attracted, and a pro-US government remains in power. However, education, health care, and housing have shown no signs of improvement, and unemployment has increased. It can be argued that in the years following the invasion, the island has merely returned to the economic stagnation and political disenchantment which led to the 1979 revolution."

Similar to subsequent US military operations, the campaign planners for Urgent Fury focused almost exclusively on the application of combat power, and failed to realistically consider the implications of post-combat civil-military operations.

IV. COMPARISON OF DOCTRINE AND APPLICATION

Did the planners apply operational art in their planning and execution of Urgent Fury? That is, did they design, organize, and execute the operation to accomplish the strategic objectives in accordance with the previous discussion of the theoretical and doctrinal attributes of operational art? By analyzing the military conditions which contributed to the attainment of the strategic objectives, the sequencing of actions to produce those conditions, and the six operational functions of C2, intelligence, movement and maneuver, fires, protection, and support, Operation
Urgent Fury can be appropriately judged.

By definition, a joint task force operating in a specific theater or region is at the operational level. At a minimum, Urgent Fury was a major military operation combining US Army, Navy, Marine and Air Force assets with various forces of the OECS. At the time of Operation Urgent Fury, the Atlantic Command planners and their commander, Admiral McDonald, should have been aware of the fundamental concepts of operational art. Even though the planning was dominated by a Navy staff, there were Army officers present who should have been familiar with the latest version of *FM 100-5, Operations*, and its discussion of the operational level of war. Though it presented only a cursory view of some of the elements of operational design, the manual did stress the importance of linking operational objectives, resourcing, and sequencing to the overall strategic objective.

As previously defined, the objective is the focal point for operational art. It must come from the strategic perspective and flow clearly through the operational to the tactical perspective of war. President Reagan issued three military strategic objectives to guide the subordinate planning for Urgent Fury. He wanted US citizens on the island protected, democracy and law and order restored, and Cuban
intervention in Grenadian affairs eliminated." These objectives provided the rationale for the operation and engendered overwhelmingly popular US support. Additionally, they provided reasonable explanations for fighting to both the participating military forces and the civilian population supporting them.

Although the missions given to the various military forces in Urgent Fury changed between planning and execution, the mission statements issued nevertheless included specific and clearly identified militarily achievable objectives which evolved from the strategic objectives set forth by President Reagan. Vice-Admiral Metcalf, commander of JTF 120, was given three primary tasks by the Atlantic Command staff planners. First, he was to protect and evacuate US citizens and designated foreign nationals. Second, he was to neutralize the Grenadian defense forces. Finally, he was expected to stabilize the internal situation and establish law and order on the island. These objectives appeared to have been well understood up and down the chain of command. Metcalf himself considered them to be both clear and unambiguous.

Since the Clausewitzian term center of gravity was not a doctrinally sanctioned concept at the time of Urgent Fury," the operational planners did not specifically address them in their plan. But, with the
benefit of analytical hindsight, the center of gravity can be derived based on the operational objectives and subsequent tactical actions taken. Since the recently installed Grenadian government derived its power from the military forces on the island, it is fair to assess those forces as the operational center of gravity. Logically then, if the military forces, the hub of all power upon which all else depended, were defeated, then all the other strategic objectives could be attained.

Two friendly centers of gravity are discernable. First, to prevent another Iranian hostage scenario, the American students on the island had to be secured. Second, to ensure the support of the American people, the operation had to be quick and decisive. Both of these factors appear to have influenced the operational planning and subsequent tactical objectives for Urgent Fury. The protection of American lives was cited as the primary reason for intervention, "and the rapid application of combat power was stressed throughout the plan."

To go after the enemy's center of gravity, operational planners should design the campaign or major operation to strike the supporting decisive points. Urgent Fury had such points prioritized, designated as objectives, and resourced to allow for their seizure or destruction. Special operations
forces were to secure the Island's major airfield, capture the lone radio station, and rescue numerous Grenadian political prisoners around the capital of St. George. The follow-on forces from the Marines and 82d Airborne Division would then rescue the American students, defeat the Grenadian defense forces, and establish stability on the island."

To facilitate the destruction or capture of the decisive points, planners consider the lines of operations which support the scheme of maneuver. These lines, which define the directional orientation of the force in relation to the enemy, connect the base of operations with the strategic objectives." While Operation Urgent Fury featured primarily geographic exterior lines for US forces, and interior lines for the Grenadian forces, better technology, plenty of assets, and superior training enabled the planners to attain an operational mobility advantage over the Grenadians at any given location. This mobility advantage allowed the operational commander to function with de facto interior lines and thus more easily converge upon and defeat the enemy center of gravity."

President Reagan's desire for a quick and decisive victory in Grenada underscored the criticality of the culminating point for US forces. In Urgent Fury, this
culminating point was best expressed as a function of US popular support. That is, popular support would decrease in direct relation to increased length of combat operations. Though the seizure and control of the Port Salines international airport could be cited as critical in preventing logistical culmination for the US, rapidly securing the operational objectives was the linchpin for strategic success.

When clearly integrated with the objective, operational planners can also contribute to the attainment of operational art through proper sequencing and resource application. By introducing the right type of forces into the theater at the right place and time, the operational planner dictates the tempo of operations. The planners of Urgent Fury broke the operation into three distinct phases with resources allocated to each. The first phase, which was predominately accomplished by special operations forces and the Marines, was designed to establish the initial lodgements, disable the radio station, and free political prisoners. Phase Two envisioned the 82d airlanding, expanding the lodgement, relieving the special operations forces and Marines, and conducting decisive combat operations against the Grenadians. Phase Three had the 82d passing their peacekeeping duties to members of an OECS peacekeeping force and
then returning home."

The six operational functions are the final
element of operational design and therefore a critical
component in the application of operational art. These
concepts, when properly applied, provide the
operational linkage between strategy and tactics, and
help the commander in synchronizing his campaign.

The first function, command and control, was a
major disappointment in Operation Urgent Fury.
Atlantic Command lacked the communications capacity and
staff expertise for such a large scale ground
operation. To remedy the situation, a seventeen man
joint staff was formed and placed as the operational
headquarters on Metcalf’s flagship, the USS Guam.
Unfortunately, most of the officers had never worked
together, did not understand each other’s procedures,
and were often forced to plan in isolation."
Exacerbating the command and staff problem was a lack
of interoperability between Navy, Marine and Army
radios. Despite the fact that the joint forces were
often able to physically see each other, radio
communication was virtually non-existent.

Unity of command was also a problem. The
individual services were hesitant to allow another
service to command their units. The operational plan
therefore split the island in half, with essentially
two ground force commanders operating independently. As a result, cooperation between the Army and Marines was minimal. Vice-Admiral Metcalf lessened the problem by assigning an Army division commander, Major General Norman Schwarzkopf of the 24th Infantry Division, as his deputy. Nonetheless, efficiency suffered as a result of a poorly conceived and executed command and control plan.

Intelligence, the second operational function, was deficient in both volume and quality in Operation Urgent Fury. When the US made the decision to invade the island on October 25, there existed little intelligence on who controlled Grenada, what the strength, composition, and disposition of the enemy forces were, and what type of capabilities they had, especially air defense. The planners appeared to have relied extensively on high technology solutions such as satellite and aerial photography in the formulation of their plan. Tactical maps were scarce, and human intelligence, the most difficult to obtain, but generally the most accurate, was extremely scarce. Despite the fact that rescuing American students was one of the primary stated objectives of the operation, the planners were nevertheless unaware of the existence of two campuses on the island. Additionally, they failed to identify a mental hospital
adjacent to the military objective of Fort Rupert. These two intelligence failures resulted in a 24 hour delay in rescuing an additional 100 Americans, and in 18 mental patients accidentally killed from a US air strike. Better human intelligence could have prevented both.

Operational movement and maneuver, the third function, was embodied in the three phases alluded to earlier. However, despite the overall success of the operation, there were some serious shortcomings here as well. The tactical performance of the special operations forces was less successful than desired. The Delta Force Commandos failed on two of their missions and the Navy SEALS suffered an inordinate number of casualties. Though the Marines generally received high marks for their participation, the 82d was severely criticized both during and after the operation for exercising an excessive amount of caution in securing their objectives. Fortunately, however, the operational planners considered a worst case scenario in their design of Urgent Fury. Hence, to their credit, they stacked the deck in favor of the US forces by employing a relatively large combat force for the invasion.

Operational fires, the fourth function, were provided by naval gunfire, A-7 fighter-bombers, and Air
Force AC-130 Spectre gunships. With the exception of the role played primarily by the Spectres, operational fire planning and execution was relatively austere during Urgent Fury. Because of the relatively restrictive rules of engagement, operational fires were of limited value in the operation. What support was provided, however, did facilitate maneuver, isolate portions of the battlefield, and destroy some critical operational and tactical targets. Commenting on the value of the AC-130s, Major General Trobaugh remarked during the operation that he would relinquish his naval gunfire, landbased artillery, and organic attack helicopters before releasing the Spectres for redeployment. Due to the unsophisticated nature of the Grenadian defense forces, non-lethal fires in the form of electronic countermeasures were not used or needed in the operation.

The fifth operational function, protection, appears to have been an overriding concern of all the Urgent Fury planners, perhaps too much so. While operational deception was minimal, operational security (OPSEC) was deemed so important that many of the forces involved in Urgent Fury were literally left out of the planning until the last possible moment. This caused a great deal of consternation for the operational forces by denying them valuable coordination and planning.
time. Though the planners wanted to ensure surprise, it appears that the only people surprised by the US invasion were the American public.¹⁰²

Tight OPSEC led to and exacerbated the previously mentioned C2 problems by preventing the operational planners from sharing the appropriate communications data necessary for a joint operation. Additionally, logistical operations were adversely affected. For example, the Army officer tasked to coordinate the logistical effort for Urgent Fury was not brought into the planning until October 23. The concern was, once again, OPSEC and the potential loss of surprise.¹⁰³

The final operational function to be considered in the design and execution of a campaign or major operation is logistics. Tremendous logistical challenges were encountered in Grenada due to the inherent difficulties in assembling, deploying, and sustaining over 6000 combatants in a joint operation. Despite the relative advantages of Grenada’s proximity, friendly population, forgiving environment, and lack of credible sea or air forces, the US logistic operation was a struggle and often inadequate to the task.¹⁰⁴

Logistical issues were never considered in the decision-making process for Urgent Fury. Since the JTF staff had no logistician, the key operational decisions were made irrespective of logistical impact. Several
causes can be cited for the logistical ineptitude. First, the planners felt that the operation would be over so quickly that logistics would not be an issue. Second, strict OPSEC measures prevented logisticians from timely participation in the planning process. Finally, the planners had an operational orientation coupled with little to no logistical intelligence about the island. As a result, there was no commander's concept for logistics in the plan.

Despite inept logistical planning, the operation was successful. One of the most notable logistical successes of Urgent Fury was the adequacy of the airlift, which allowed for the constant flow of supplies to the country. Through perseverance and lower level initiative, US military forces demonstrated their capability to rapidly deploy and sustain a combat force in a relatively austere theater.

V. CONCLUSIONS

The planning and execution of Operation Urgent Fury clearly was not, in and of itself, operational art. The theoretical criterion established by Schneider and Dubik were only partially met. Doctrinally, there were some elements of operational design present. Most notable were the clear operational objectives linked to the strategic endstate through the sequencing and resourcing of specific
combat forces. But the planner's misapplication of the six operational functions needed to support the commander's operational vision could have easily turned Urgent Fury into a military disaster. Nevertheless, despite the poor intelligence, planning errors, lack of surprise, C2 incompatibility, and minimal interservice coordination, the operation was an overall political and military success, with all major objectives being met.

So why did the US win such a relatively easy victory in Grenada? First of all, the US troops fought a second rate, poorly equipped, and disorganized Grenadian military force which lacked effective leadership. Second, the numerous errors in operational planning which could have produced fatal flaws were overcome by the sheer application of overwhelming US combat power and an abundant spirit of cooperation and initiative at the lower tactical levels. As has been shown in countless other instances throughout time, quantity has a value of its own. Finally, luck and good fortune were on the side of the US.

On a positive note, Operation Urgent Fury was credited with initiating a resurgence in the study and application of operational art in the US military. The lessons derived from the operation directly contributed to increased joint interoperability through the
establishment of the 1986 Goldwater-Nichols Act, and subsequent Army and joint doctrine. Most importantly, through the application of the elements of operational design, the "sledgehammer approach" utilized in Grenada was further refined into operational art in both Panama and the Persian Gulf.106
ENDNOTES


2. Ibid, p. v.


8. Ibid, pp. 177-182.


from 1929), p. iii.

14. Miller, pp. 36-37.


23. Ibid, p. 64.


34. Ibid, pp. 33-34.


43. Joint Chiefs of Staff, JCS PUB 5-00.1, JTTP for Campaign Planning (Revised Initial Draft), (Washington, DC: J7, Joint Staff, 1993), pp. II-3 - II-4; Armed Forces Staff College, AFSC PUB 2, Service Warfighting Philosophy and Synchronization of Joint Forces, (1992), pp. II-3-8 - II-3-9; and U.S. Army, FM 100-5, Operations, (1993), p. 6-7.

44. U.S. Army, FM 100-5, Operations, (1993), pp. 6-7 - 6-8.
45. Summary of Joint Chiefs of Staff, JCS PUB 5-00.1, JTTP for Campaign Planning, (1993), pp. II-6 - II-7, and U.S. Army, FM 100-5, Operations, (1993), pp. 6-7 - 6-8. A force operates on interior lines when it diverges from a central point. Interior lines generally benefit a weaker force by allowing it to shift its main effort quicker than the opponent. Exterior lines cause a force to converge on the enemy. They are usually associated with a stronger force which can encircle and annihilate its opponent. In modern context, a force which maneuvers faster than its opponent, regardless of its geographic position, operates on interior lines.


48. Joint Chiefs of Staff, JCS PUB 5-00.1, JTTP for Campaign Planning, (1993), pp. II-9 - II-10

49. Ibid, pp. II-10 - II-12.


60. William C. Gilmore, The Grenada Intervention: Analysis and Documentation, (New York: Facts on File, 1984), p. 28. The People's Revolutionary government which came to power under Maurice Bishop and Hudson Austin in 1979 almost immediately set out on a course of alienation from the US and its Caribbean neighbors. They consistently stressed a foreign policy which was anti-imperialist and identified with socialist goals. As a result of that policy, Grenada expanded its diplomatic ties with the Soviet Union, eastern Europe, and third world states of socialist orientation such as Nicaragua and Cuba. The aid relationship with Cuba expanded rapidly to include arms supplies, medical exchange, airport construction, fisheries, education, and cultural exchange. All of this activity further ostracized Grenada in the Caribbean community.

61. Ibid, pp. 28-29. President Reagan's policy when he assumed office was to bring the government of Grenada to its senses through various political and economic initiatives. Reagan's goal was to exert enough pressure on Bishop that he would sever his ties with the Soviets and Cubans. This, however, did not happen, and after three years of US isolation and pressure, the military element of power became the instrument of choice.

based on social democracy. The discovery of the Grenada Documents and their subsequent analysis in October 1983 revealed that Bishop was an avowed Marxist-Leninist with strong ties to Soviet expansionism policies surrogated to Cuba. Bishop had a two-fold program of internal subversion and repression combined with an external campaign of propaganda and deception. His communist alliance in the Western Hemisphere coupled with his strategic concerns in South and Central America as an arms and ideology conduit for Nicaragua and El Salvador is indisputable.

63. Peter M. Dunn, American Intervention in Grenada: The Implications of Operation "Urgent Fury", (Boulder, CO: Westview Press, 1985), pp. 50-51, and Nicholas Dujmovic, The Grenada Documents: Window on Totalitarianism, (Washington, DC: Corporate Press, Inc., 1988), p. xiii. The Grenada Documents, approximately 500,000 pages of material compiled during Bishop's reign of power from 1979-83, add legitimacy to the claim that the Grenadian armed forces were being transformed into a formidable regional threat in the Caribbean. Further evidence in the documents shows that the New Jewel Movement was the center of training for regional Marxist-Leninist parties for small island countries like Grenada who hoped to repeat Grenada's socialist experience. The international airport being constructed at Port Salines was specifically mentioned in the documents as a potential logistical and operational base for both the Soviets and the Cubans.


66. Dunn, pp. 73-75, and Gilmore, pp. 30-33. Simultaneously with that planning, it was discovered that despite an existing contingency plan on file for a possible invasion of Grenada, the maps and photographs of the island were woefully inadequate. Operational planning was accomplished without reference to the existing plan.

67. The Organization of Eastern Caribbean States (OECS) was comprised of Antigua, Dominica, Grenada, Montserrat, St. Kitts/Nevis, Saint Lucia, and Saint Vincent and The Grenadines.

68. Gilmore, pp. 33-36.
69. Burrowes, pp. 63-69, and Gilmore, p. 36.

70. Burrowes, p. 134.

71. Summary of James Ferguson, _Grenada: Revolution in Reverse_, (Nottingham, England: Russell Press, 1990), p. 5; Dunn, p. 85; and Tiwathia, pp. 10-12, 39. According to then Secretary of State Alexander Haig, the US invasion of Grenada, though ostensibly undertaken in the name of national security and regional stability, was fundamentally motivated by geopolitical concerns. The Reagan administration wanted to demonstrate its ability to control the Caribbean region and roll back communism through the military instrument of power.


73. Adkin, pp. 125-128.

74. Ibid, Appendix C.


76. Dunn, pp. 100-106, and Adkin, p. 308.

77. Summary of Ferguson, pp. 128-132. The Reagan administration, subsequent to the operation, underwrote the cost of completing the Port Salines international airport. This paradox was typical of the inconsistency that surrounded US aid policy in Grenada following Urgent Fury.

79. U.S. Army, *FM 100-5, Operations*, (Washington, DC: Department of the Army, 1982), p. 2-3. At the time of this publication, the operational level of war focused on the disposition of forces, selection of objectives, and defeat of the enemy in order to set the terms for the next battle and exploit tactical gains. The level included the marshalling of forces and their logistical support requirements, providing direction to air and ground maneuver, applying operational forces, and employing SOF and PSYOP capabilities when appropriate. Nothing is mentioned, however, on centers of gravity and culmination.

80. Tiwathia, pp. 61-62. These three directives were promulgated in the President’s national security decision directive which focused the operational planning for Urgent Fury. President Reagan echoed these objectives in his televised announcement of the operation on October 25, 1983. The overall political objectives of Urgent Fury are open to debate, but can probably be narrowed down to the three presented by Burrowes, p. 76. First, the US was looking to bolster its sagging image by responding favorably in support of democratic allies and friends. Second, Reagan wanted to send a strong message to Cuba and Nicaragua that military force would be used to enforce vital US interests when necessary. Finally, Reagan’s image as being tough on communism would be enhanced.


82. Newell, p. 153. The US invasion of Grenada used military power in conjunction with other elements of national power to attain a limited national goal. It clearly linked military and strategic objectives.


84. Norris, p. 4.

85. Center of gravity, derived from Clausewitz’ ideas on the *schwerpunkt*, was a relatively new concept which was not in the 1982 edition of the U.S. Army manual *FM 100-5, Operations*. The idea of designating and
sustaining a main effort was in the manual, as was attacking enemy weaknesses which indirectly support his strength (pp. 2-8 - 2-9). Both of these concepts are described today in terms of decisive points.


87. Adkin, p. 128. The element of surprise was considered critical to completing the operation quickly, efficiently, and successfully. The plan therefore emphasized this aspect through resource application and considerable OPSEC measures. Some of the OPSEC measures have since been criticized as being too severe. In effect, the excessive OPSEC detracted from the operational planner's capabilities to coordinate and synchronize the plan prior to execution.

88. Ibid, pp. 136-144.


91. Adkin, pp. 141-144. The wisdom in the allocation of some of the resources against various objectives is debatable in hindsight, but the fact remains that there did appear to be a logical thought process linking the sequencing, resourcing, and objectives.


95. Rivard, p. 22, and Dunn, p. 139.

96. Dunn, p. 140, and Burrowes, p. 76. Integration of knowledgeable Grenadians into the intelligence picture could have precluded this needless loss of life and embarrassment for US forces.


99. Currie, p. 25, and Adkin, p. 335. The US forces totaled some 6000 ground troops supported by their organic logistical and fire support assets, a carrier battle group, and air force assets of the Military Airlift Command. They faced approximately 750 troops of the Grenadian People's Revolutionary Army, and some 600 Cuban civilian workers, most of whom did not fight. The force ratio, less combat multipliers, was approximately four and one-half to one in favor of US forces.

100. Norris, p. 4. There were three primary rules of engagement developed for Urgent Fury. First, use only the essential force and weapons necessary to accomplish the mission. Second, minimize the disruptive impact on the Grenadian economy commensurate with mission accomplishment. Last, execute the tasks readily with minimum damage and casualties. These rules limited the planning for and application of operational fires.


102. Currie, p. 27; Adkin, p. 333; and Norris, pp. 5-6. Thanks to a State Department message to Cuba and a broadcast over Radio Barbados, the element of surprise was lost. The Grenadian defenders, though arguably not as prepared as they could have been, were not surprised by the US invasion.

103. Norris, pp. 10-12.

104. Anastasio, pp. 5, 18, 26, 34-35. Logistically, the plan was ad lib at best. There was no attempt to prioritize logistical effects or cross-coordinate to maximize efficiency. The failure to designate a single ground force commander also had a negative logistical impact.


107. Only three of Schneider's eight conditions necessary for operational art appeared in Urgent Fury. Highly lethal weapons technology, continuous logistics (albeit inefficient in this case), and forces with operational durability and endurance were evident. Similarly, only two of Dubik's four elements of campaign design were applied in the operation. These included his intellectual component as manifested in the clear operational objectives, and the psychological-physical component. It should be noted,
however, that both Schneider and Dubik wrote their theoretical concepts after Urgent Fury.


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