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Understanding The Operational Effect

A Monograph
by

Major Gary P. Petrole
Infantry

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SEP 12 1991
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Second Term 90-91

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91-10371



REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 05/08/91	3. REPORT TYPE AND DATES COVERED MONOGRAPH	
4. TITLE AND SUBTITLE UNDERSTANDING THE OPERATIONAL EFFECT			5. FUNDING NUMBERS	
6. AUTHOR(S) MAJ GARY P. PETROLE, USA				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) SCHOOL OF ADVANCED MILITARY STUDIES ATTN: ATZL-SWV FORT LEAVENWORTH, KANSAS 66027-6900 COM (913) 684-3437, AUTOVON 552-3437			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Scant literature exists to guide today's operational artist in solving the intrinsic issues of the operational level of war. Most works concentrate on the activities or functions to be performed by the operational artist with little regard for fundamental differences in the practice of war at this level. An understanding of the operational effect, the unique goal we seek to achieve at the operational level of war, is crucial to the successful design of campaigns and operations by the operational artist. The monograph examines current U.S., Soviet, and German doctrinal literature in order to review the salient doctrinal and theoretical concepts which underlie this construct. The theoretical review points out a potential void in our approach to the operational level and proposes the notion of effects to fill this void. A working definition is presented and refined against three historical case studies which span the operational continuum. The historical examples are then compared and contrasted to validate the definition and to make observations on the role played by operational effects. Finally, the monograph concludes that both theory and historical examples support the existence of operational effects. These effects provide the key linkage between our actions and desired endstates. By understanding effects, the operational commander is better able to communicate his intent, construct his campaign plan, and direct its execution. The monograph recommends a more detailed theoretical study of the operational level, and the adoption of an enemy-oriented, effects/results outlook in our approach to operational art.				
14. SUBJECT TERMS OPERATIONAL EFFECTS OPERATIONAL ART CAMPAIGN PLANNING			15. NUMBER OF PAGES 56	
AIM END, ENDSTATE INTENT			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED	

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MONOGRAPH APPROVAL

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Accepted this 15th day of May 1991

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DTIC	LAB ☐
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By _____	
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Availability Codes	
Dist	Avail and/or Sponsor
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I. Introduction

. . . the primary purpose of any theory is to clarify concepts and ideas that have become, as it were, confused and entangled.¹

Carl von Clausewitz

A virtual explosion of intense theoretical study by the Soviet Union occurred in the late 60's and early 70's. This dynamic outpouring of research had, as its purpose, the twin tasks of defining the nature of future wars and identifying the form military operations must take. By the late 70's, this theoretical and doctrinal revival was in full swing.

In response to these initiatives, the Soviet Union restructured its forces, improved its war-fighting capabilities, and increased its study of operational art and tactics. This revival of concern rescued operational art from the stagnation it endured with the advent of nuclear weapons. Once again, the theory of operational art received special attention and intense study from Soviet military theoreticians.²

This resurgence of interest in operational art by the Soviets generated a similar rebirth of theoretical and doctrinal analysis by its NATO opponents. American military leaders faced a revitalized, aggressive Soviet threat which no longer based its doctrine on an exclusively nuclear scenario. Among the many responses to this qualitatively different threat was the reintroduction of the operational level of war and

operational art into the American doctrinal lexicon.

Beginning with the 1982 version and greatly expanded in the 1986 edition, Field Manual 100-5 serves as the primary reference for the American doctrinal perspective. This publication provides the basis from which an American theoretical perspective can be derived. Despite the importance of theory to a thorough understanding of operational art, there remains a dearth of theoretical literature written in English on this subject. Few authors outside of the Soviet Union have made any meaningful attempt to expand or explain the underlying theory of operational art.

While a significant number of papers and articles concerning this subject have been written, the majority reflect a distinctly practical bias. These works concentrate primarily on expanding AirLand Battle doctrine and solving problems which focus on the practical application of doctrine at the operational level.

Yet, it is the underlying theory which necessarily forms the basis of a viable doctrine, and theory remains much neglected in our military journals. The purpose of this monograph is to enlarge that limited body of theoretical works and to explore a facet of the operational level of war.

The aspect which this paper will focus upon is

what I refer to as an *operational effect*. The central question of the monograph is whether this theoretical construct aids our understanding of operational art and our practice of campaign design. Implicit within that question is the need to define this phenomenon and its relationship to other more commonly used terms.

In order to provide an answer, the study will discuss current American, Soviet and German operational theory and doctrine to define the parameters of the operational level of war. This review will serve to clarify the more traditional terminology. It will also aid in framing the discussion of operational effects and in developing a working definition. The paper will then attempt to untangle our vocabulary and develop the logical relationships within these concepts.

Three historical cases are offered to demonstrate both the existence of operational effects and their influence on the practice of operational art. These cases span the operational continuum from high- to low-intensity war. An important limitation of this study is that it restricts the historical examples to actual warfare. Conditions of peacetime competition and conflict are not addressed within the scope of this paper. The intent here is not to denigrate the importance of these cases but merely to sharpen the focus of this study.

The monograph analyzes the historical cases to assess the validity of the proposed definition and to refine it. The historical examples serve to clarify the definition, demonstrate its impact over the operational continuum, and identify its relevance to the successful outcome of a campaign. Clausewitz's criteria of mass, space, and time are employed to validate the significance of the observations and their relevance to the conduct of operational art.³ With this road map in mind, let us now turn to the theoretical foundation of the operational level of war.

II. Theory of the Operational Level of War

The United States military, and the U.S. Army in particular, are exceptionally pragmatic institutions. We produce no official publications which would satisfy Webster's definition of a theoretical work.⁴ We enumerate no succinct, coherent group of propositions to explain the phenomenon we call war. Yet without an enunciated foundation, we have constructed an extensive body of doctrine.

This doctrine provides us with a consolidated, accepted expression of our approach to warfighting. However, our doctrine is also rife with contradictions originating from what Professor James J. Snyder refers to as "our classical military prejudices and

enthusiasms."⁵ It is small wonder that without an organized and systematic reevaluation of underlying theory, the current expanded view of the levels of war is a product of Soviet military study.

Our Soviet counterparts subscribe to a more structured and disciplined inquiry into the nature of war.⁶ They view war as a complex, natural, social phenomenon which merits dispassionate study and serious analysis. Because of its complexity, they recognize the necessity to dissect war into manageable sections in order to understand its nature and practice. This process of examination has defined five levels of combat activity for the Soviets.

These levels are primarily perspectives from which we may view the activities which comprise war. They provide us a framework to analyze the vast quantity of actions, interactions, and decisions which occur. They also provide the necessary structure required to prosecute war in its modern forms.

Current American military thought recognizes three levels of war: the strategic, the operational, and the tactical. These perspectives have origins based in classical military thought and arose, in their modern form, as a response to the impact of technology and the growing complexity of war. From the American viewpoint, this tiered structure provides an

interrelated and hierarchical perspective into the nature and conduct of war.

To understand the characteristics of and the relationships between each level, we may adopt either a holistic or particulate view of war itself. A holistic view implies that war as an entity is more than the sum of activities on the levels which we have defined. The latter position would argue for distinct but related levels which describe its nature *in toto*.

Authors associated with a particulate view define the perspectives with relatively little overlap among them. They impose strict criteria to determine the existence of each level, its scope, and its attributes in practice. The presence of each level, and the art of its execution are categorized through the use of discriminating criteria so that each action or decision can be assigned to the appropriate level for analysis.

The holistic approach, which this writer subscribes to, emphasizes the interdependence and interaction between the perspectives. This approach recognizes that some facets of warfare fall outside the viewpoints offered by the levels of war. It also accepts that the relationship between the levels may differ based upon the unique circumstances of a particular war.

As the first illustration shows, the greatest

distinction between the levels is evident when war is prosecuted at its most intense. Here, the size, scope, and complexity of war requires large-scale participation. Under these conditions, the stratification of the levels tends to be most complete and their individual characteristics are most evident.

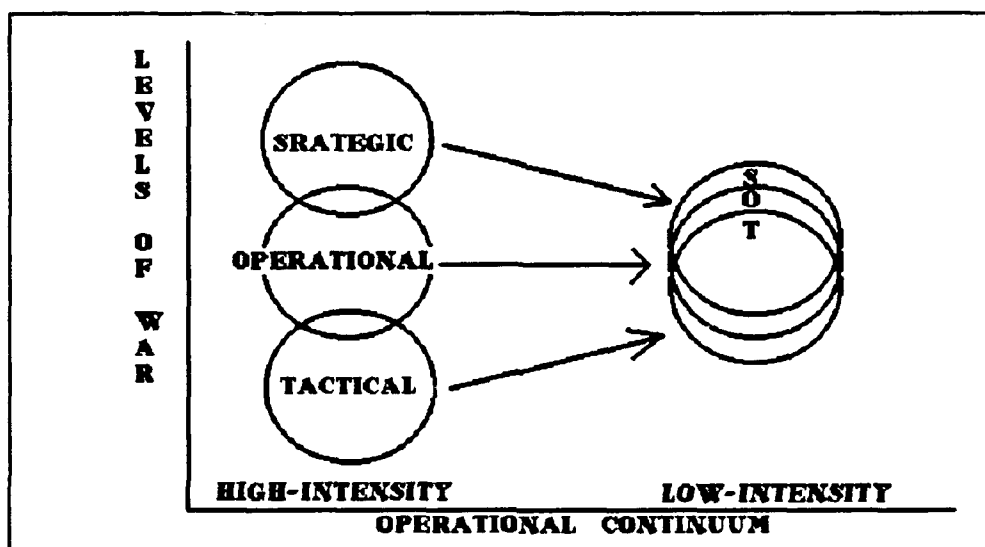


Figure 1. The relationship between Levels of War and the Intensity of War.

Likewise, we observe that the levels are linked because they influence the actions and activities which occur in other levels. We also note that under conditions of low-intensity warfare, the overlap between the levels is greatest. The implication here is that the circumstances of low-intensity war frequently cause actions, decisions, or events which are significant on each level simultaneously.

This overlap does not imply a lack of complexity in low-intensity war. This type of conflict may be

exceptionally difficult in its own right. Rather, it indicates that the limited number of participants, and their actions may cause repercussions which exceed a single level. The key point here is that each level is still present. It is simply more difficult to isolate the key events and decisions associated with each perspective.

Our Soviet contemporaries attempt to accommodate both viewpoints. They perceive each level as "interconnected, interdependent, and mutually conditioned."⁷ Yet, they remain captive to their history, their geography, and their political ideology. The Soviet Union's vast expanse of territory, its participation in World War II, and its scientific-Marxist approach, have created a rule-oriented, highly-structured paradigm for war. This construct largely equates the levels of war to a particular combat organization and its associated activities. Viewed from the Soviet perspective, the operational level exists because their concept of war is predominantly the high-intensity variety.

With the relationships previously discussed in mind, let us turn our efforts to defining each level. Our central topic is the operational level. However, its definition is best arrived at through a discussion of the other two perspectives.

The focus of the strategic level is the creation and implementation of military strategy. Military strategy, as defined by Field Manual 100-5, is

. . . the art and science of employing the armed forces of a nation to secure policy objectives by the application or threat of force.⁸

Strategy is a command-oriented concept. It has little to do with direct troop control. Rather, strategy concentrates on the conduct of war as a whole. The strategic perspective translates national policy into military objectives, allocates resources, and provides an over-arching concept to obtain its goals. Compared to the other levels, it has the broadest perspective of mass, space, and time.

At the other end of the spectrum lies the tactical level of war. Tactics, described by FM 100-5 as

. . . the art by which corps and smaller unit commanders translate potential combat power into victorious battles and engagements,⁹

is its basic element. The tactical level is fundamentally concerned with the direct command and control of troops. Its focus is the individual battle or engagement. As such, the tactical level exhibits the narrowest perspective of mass, space, and time in war.

Given these two extremes, what then is the operational level of war? It is best described as an intermediate level which provides the essential linkage

between the others and frequently overlaps the strategic and tactical perspectives. The practice of operational art is the primary focus of this level.

American doctrine conceives of operational art as

. . . the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations.¹⁰

It is through the practice of operational art that the fundamental issues of the operational level are addressed.

The aspect of linkage is a central theme of both the operational level and this monograph. The translation of strategic, military goals into precise objectives for the tactical commanders occurs at the operational level. Here, the commander attempts to set the conditions for all future battles and engagements. His principal tool to accomplish this is the campaign plan. It is this directive and the concept it embodies which provides the fundamental link between strategic goals and tactical actions.

To briefly summarize, the operational level provides an intermediate perspective into the nature and conduct of war. Unlike the other perspectives, it is both command and troop control-oriented because it incorporates both the movement of forces in the theater and battle, and the role of the commander to set the

conditions of battle. The commander must deal with when and where to fight, whether to accept or decline battle, and what conditions define success or failure. His perspective of mass, space, and time is relative to the other levels, being narrower than the strategic and broader than the tactical.

This conception of the operational level emerged with greater clarity as improved technology and methods of warfare evolved. Yet, it is by no means universally held. Our Soviet opponents add more stringent criteria to the operational level. Their quantitative standard ties this level to a specific size force. German military thought is more flexible on this point. For German theorists, the principal difference between the levels is based upon the "substance, objective, and purpose of the command and control element"¹¹ of any given force.

The term operational art is frequently confused with the operational level of war. The two concepts are related but not synonymous. The use of the word art finds its roots in the Soviet conception of military art. It pertains to

. . . the theory and practice of, preparation for, and conduct of military actions on land, sea, and air.¹²

By extension then, operational art involves the theory and practice of, preparation for, and conduct of

combined military actions by major field forces.

As we can see, this is no small semantic difference from the operational level of war. Operational art is both more and less than its corresponding level. It is constrained by the questions and issues inherent in the operational level. In another sense, operational art exhibits greater scope in practice through the play of creativity contributed by the commander.

It is within the realm of operational art where several important concepts have become entangled. This confusion arises in part because we have inadequately articulated our theoretical base. It also stems from our imprecise use of terminology. These concepts are rooted in the commander's understanding of operational art and include: the aim, the end, the endstate, the intent, and the concept. None of these important terms are defined within our professional lexicon or doctrine, yet their use is an everyday occurrence. Their misuse frequently results in confusion and oversights in the planning and execution of operations by the participants.

The notion of ~~end~~ arises from our doctrinal injunction to the commander to weigh the ways and means available to him to accomplish a given end. While ways and means are relatively straightforward, the concept

of **end** is not. An **end** is defined as

. . . a termination or conclusion, or a natural termination of an action or process, an outcome.¹³

The point of emphasis here is that the **end** represents the logical outcome of a given process. Purpose is not inherent within its meaning. It is the goal toward which action is directed.

The **aim**, however, relates to an action or process in a subtly different way. Field Manual 100-6, Large Unit Operations, cites the role played by the commander's aim in translating the directives of the operational level into the objectives required by tactical subordinates. This notion of aim centers on providing direction and purpose to action. Both **end** and **aim** imply something that is the goal of one's efforts. However, the **end** emphasizes the goal as the cause of one's efforts while the **aim** indicates the path to the goal.

The endstate draws much of its meaning from the definition of **end**. It is simply the outcome. The **end** reflects the completion of a series of actions and the attainment of some change from the initial state. The endstate we wish to achieve is a physical condition we desire to bring into being on the battlefield. An endstate is a portion of our desired end.

Two other much confused ideas are the commander's

intent and his concept. The commander's concept is his application of doctrine, judgement, and experience to develop and state a scheme of action which will logically produce the desired result. Its central theme is the actions to be taken by the force.

A recent general officer discussion defined the commander's intent in these terms.

Intent is the commander's stated vision which defines: the purpose of an operation; the endstate . . . ; and briefly how the endstate will be achieved by the force as a whole.¹⁴

While some overlap exists between concept and intent, the key element here is the explicit statement of the commander's aim within the intent. The intent clearly tells us what the commander wishes to accomplish. It specifies the direct effects and the endstate the commander desires to produce. Intent also provides an insight into why a commander is undertaking a particular course of action.

These concepts facilitate our understanding of a complex analytical process. They serve as a framework for the commander to communicate his vision to his subordinates. Yet, these notions also leave us vaguely uneasy because they omit something. Let us now assess whether the notion of an operational effect can fill this void.

What is an effect? Webster defines an effect as

. . . something produced by an agency or cause; an impression produced; the main idea or gist; the result intended, purport, or intent; that which is produced directly as a consequence of a given action or cause.¹⁵

It is apparent from this definition that an effect is related to all the concepts previously discussed.

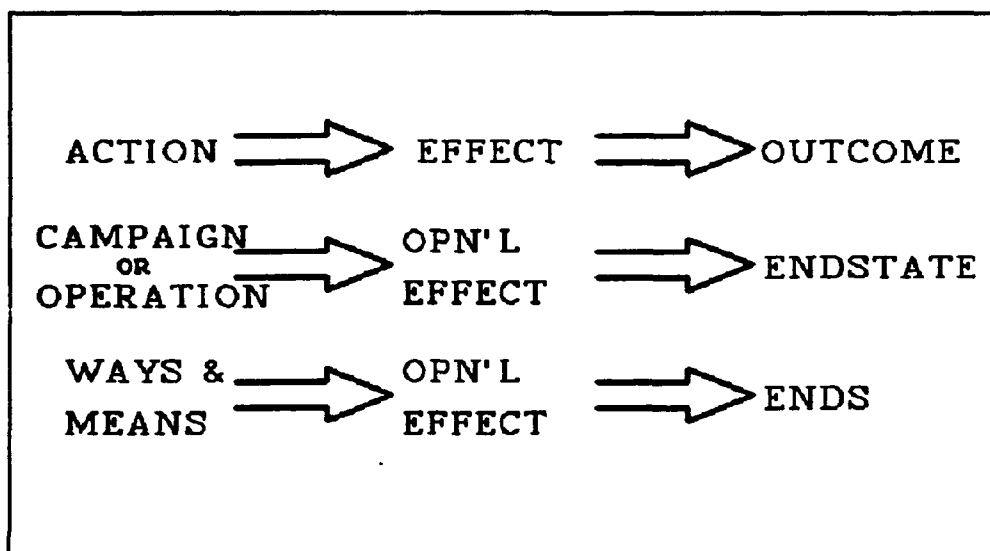


Figure 2

As depicted in the second illustration, an effect forms the link between an action and its outcome. A given action causes an effect which results in a particular outcome. In military terms, actions on the operational level lead directly to the creation of operational effects. Whether we consider ways and means, or a campaign plan, it is the effects they generate which determine if they will achieve their desired end or endstate.

Operational effects are most closely related to the notions of aim and intent. Their achievement is

the fundamental reason that a given course of action is undertaken. By explicitly recognizing and stating the effects desired, the commander concentrates on his enemy, defines his purpose, and ensures his actions will lead to the end he requires.

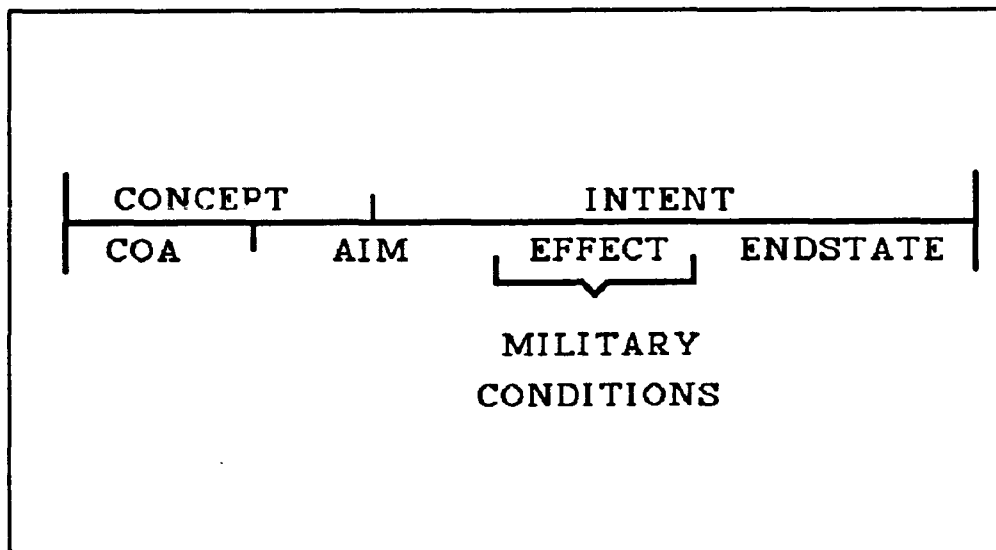


Figure 3

The third figure clarifies the relationship. The commander's desired aim, effects, and endstate are the principal components of his intent. His concept includes chiefly his intended course of action and his aim. Deciding what effects will be produced, answers the *in order to* question of both the aim and the intent. It provides the outward-looking purpose for all activity.

Our doctrine asserts that the concentration of power against the enemy center of gravity is the essence of operational art.¹⁶ Ultimately, we destroy

what is vital to our opponent through our attack of his center of gravity. By comprehending the nature of operational effects, the commander can specify in what manner and to what extent he wishes to master his enemy.

The achievement of his desired effects aids the commander in delineating what constitutes success for his concept. He specifies these effects through the articulation of the military conditions his forces must create. This insight into the commander's vision is a part of the fundamental guidance required to ensure synchronization of the command's efforts.

So far, we have developed the relationship between effects and the more commonly used doctrinal terms. Let us now explore the nature of effects. What makes it an operational effect? Our concept would appear to apply equally well at the other perspectives. We must limit our focus in some way to confine it to the desired level. Effects are classified as operational when they lead directly to the accomplishment of the operational end.

This is not merely semantics. The end provides the desired target from which the commander develops his vision. The process involves identifying the effects which lead to the end and the sequence of actions most likely to produce the desired end.

The commander then communicates this vision to his staff through his concept and intent.

EFFECTS		
	ACTUAL	PERCEIVED
PHYSICAL	DETER DEGRADE DEFEAT DESTROY	INCAPACITY INABILITY TO ACT DEATH AND DESTRUCTION
CYBERNETIC	DISRUPT SURPRISE DECEIVE	CONFUSION INABILITY TO RESPOND INABILITY TO CONTROL
MORAL	DISORGANIZE DISINTEGRATE	FEAR COLLAPSE OF WILL

Figure 4

Figure 4 depicts some of the characteristics of operational effects. This illustration is neither all inclusive of the potential effects, nor does it purport to show a one for one linkage of perceived and actual effects. Figure 4 does imply that the effects are physical, cybernetic, and moral phenomena. As such, the impressions and impacts generated by our actions span the three domains.

The chart also suggests that an effect's existence is contingent upon how our action operates upon our opponent. Our reactive adversary must weigh the impact of our actual effects and his perceptions of them. He determines to what extent a given event will affect his own actions.

This notion of effects is not unknown to our Soviet and German counterparts. Lieutenant Colonel Gordon F. Atcheson has examined this point in a monograph which contrasts the three nations approach to operational art.¹⁷ Both our opponent and ally have developed principles which focus on the enemy. Moreover, they explicitly enjoin their commanders to understand the effects generated by combat actions. Commanders are expected to plan and execute operations whose effects will gain the desired ends.

To summarize, an operational effect is a consequence of actions which creates an impression or impact in our opponent. Visualized by the commander, it arises in the practice of war, and forcibly, vigorously acts upon the other combatant. Operational effects influence his subsequent actions and result in a particular outcome. It is an operational effect to the extent that the effect leads directly and contributes significantly to the achievement of the operational end.

The focus of this section is a review of the underlying theory of American operational art. In it, we have noted a missing link in the process by which we conceptualize, plan, communicate, and execute this art. The notion of an operational effect is offered to fill this gap. We will now investigate three historical

cases with the hope of detecting its existence in practice.

III. Historical Cases

The case studies which follow provide a sampling of operational art across the operational continuum. As professor Snyder remarked, "Theory asserts nothing. It merely suggests."¹⁸ Like theory, these snapshots of history do not afford unequivocal proof of the existence of operational effects. Rather, they suggest the possibility of their existence. They grant us a measure of insight into the relationship between operational effects and the practice of operational art.

The three campaigns selected for illustration are: the Soviet 1944 summer offensive, known as the Byelorussian campaign; the American counteroffensive in Korea, in particular *Operation CHROMITE*; and the British counterinsurgent campaign in Malaya.

All three cases share a number of similarities. Each was a highly successful operation. The preponderance of actions and decisions in these examples occurred at the operational level. They were planned and executed by easily identified operational commanders. And in each case, a substantial historical record of the commander's thoughts, perceptions, and

desires is available. This paper explores that record for evidence of operational effects.

The first example stands against the backdrop of the Second World War, the most significant military conflict of this century. By April of 1944, the Soviet army had destroyed the German Sixth Army at Stalingrad, turned back the Germans at Kursk, and in their winter campaign, ejected them from the Ukraine. Now, the initiative clearly rested with the Soviets.

The key question was where to attack the Germans next. Stalin, with the advice and concurrence of STAVKA, (the staff of the High Command of Soviet Forces), selected the German Army Group Center as the target. From this choice of strategic direction arose *Operation BAGRATION*, the campaign to retake Byelorussia.

The plan for the Byelorussian campaign was to be the most ambitious the Red Army had ever staged. The plan reorganized the entire Soviet theater of operations, massing forces within the five fronts selected for the attack. During its preparatory stages, an extensive *maskirovka* operation was undertaken. Supporting theaters conducted operations which would reinforce German perceptions of the point of main effort, remove Finland from the war, and conceal the realignment of forces against Army Group

Center.

The central thrust of *BAGRATION* was the destruction of Army Group Center through a series of double envelopments. Small, local envelopments were to isolate Vitebsk, Orsa, Mogilev, and Bobrusk. The first operational level maneuver was then to converge on Minsk, with subsequent operations oriented on a larger envelopment in the south. One arm would continue from Minsk toward Baranovich, Slonim, and eventually Warsaw. The other would begin below the Pripet marshes and strike toward Brest and Warsaw.

The breadth and depth of this operation is staggering. Planned by generals A. M. Vasilevsky and G. K. Zhukov, who both later coordinated the actions of the fronts, *BAGRATION* covered a frontage of 1000 kilometers and struck to a depth of 600 kilometers. The operation involved the employment and coordination of over 200 divisions in order to destroy Army Group Center. It clearly displayed the maturity and growing sophistication of Soviet operational art.

Returning to the theme of the previous section, the desired ends for this operation were the removal of German forces from Byelorussia, the destruction of German forces, and the collapse of will in Germany's allies. The endstate to be achieved consisted of the reoccupation of Byelorussia and the securing of

bridgeheads across the Vistula.

The aim of *BAGRATION* was to reclaim Byelorussian territory through the conduct of offensive operations which would rapidly penetrate and envelop German front line defensive forces. A series of deeper envelopments would then be undertaken in order to disrupt and paralyze German forces, cut off their escape, and ensure their destruction. We may reconstruct the concept and the intent from these notions of the end, the desired endstate, and the aim.

The concept of *Operation BAGRATION*, as planned by STAVKA and approved by Stalin, called for an extensive offensive operation by the Red Army. Soviet forces, composed of the 1st Baltic, and the 1st, 2nd, and 3rd Byelorussian fronts, along with associated air and logistics assets, would conduct a series of penetrations and shallow envelopments to breach the German Army Group Center. These penetrations would facilitate operational exploitation in a larger envelopment which would orient on Minsk.

Subsequent phases of the operation would accomplish a broad, deep envelopment conducted north and south of the Pripet marshes by the 1st Byelorussian front and the 1st Ukrainian front. This envelopment orients on Warsaw, with the destruction of enveloped forces, the securing of bridgeheads across the Vistula,

and the reoccupation of Byelorussia as the main objectives.

Much of the underlying intent of the campaign can be gathered from the memoirs of Marshall G. K. Zhukov. The purpose of the operation was to conduct the most appropriate offensive action which would penetrate, overwhelm, and destroy the Army Group Center. With the defeat of these defenses, "the entire western strategic direction would collapse."¹⁹

This operation incorporated partisan activity, *maskirovka*, double envelopments, simultaneous attack across the enemy's depth, and rapid exploitation in order to achieve its desired ends. The careful sequencing and synchronization of these actions defines how *BAGRATION* was planned and executed. We may perceive what operational effects were desired or produced by examining why these particular actions were selected.

Lieutenant Colonel Atcheson, in the preceding section of this paper, noted that our Soviet counterparts explicitly consider the production and exploitation of effects in their doctrine. As heirs to the legacy of Tukhachevskiy and Triandafillov, they were long acquainted with what effects were generated by a particular form of maneuver. By this period of the war, the Soviets regarded the double envelopment as

the principal method to destroy large enemy formations.²⁰ This was because the double envelopment was most likely to produce a related series of effects which would accomplish the desired destruction.

Consequently, Soviet doctrine and operational art had formalized the choice of effects to be produced into a selection of the appropriate mode of combat for a given situation. The use of the modes of action listed in the intent represents a conscious attempt by the planners of *BAGRATION* to generate specific operational effects.

In reviewing Zhukov's memoirs, we see that partisan activity was geared to paralyze the enemy's rear area at crucial moments.²¹ *Maskirovka* operations not only protected the force, but also deceived and confused the enemy. It generated surprise within the Germans and reinforced their inability to respond to the Soviet offensive.²²

Likewise, the double envelopment, deep simultaneous attack, and rapid pursuit and exploitation are all calculated to inflict catastrophic destruction through the disruption and disorganization of enemy forces. The combined effects of these maneuvers and their supporting fires was the extensive paralysis of German forces. This paralysis facilitated the rapid

destruction of three German armies in turn and the effective disintegration of the entire German center.

In short, the effects sought by Zhukov were inherent in the modes of action he chose for the plan of the campaign. Each of the actions selected required explicit consideration of the effects they would produce. The sequencing of these effects and their synchronization was tied directly to the ends desired for the campaign. They determined in what manner and to what extent enemy formations would be acted upon in order to influence their actions and decisions in the campaign.

Furthermore, the effects required for a successful campaign were both actual and perceived by the Germans. While the physical destruction and disruption was real, its effect in terms of inability to respond, act, or control were multiplied throughout the German forces. Clearly, these effects spanned the physical, cybernetic, and moral dimensions. Both Zhukov and Vasilevsky envisioned the consequence of these effects as the liberation of Byelorussia and the destruction of Army Group Center.

By the Byelorussian campaign, Soviet operational art had become highly sophisticated in the planning and execution of large-scale operations. Here we see that the underlying doctrine evolved to a point where the

effects of a given action were known and understood by Soviet planners. We also observe that the production, sequencing, and synchronization of these effects were explicit considerations of the campaign's principal architects. Operation BAGRATION provides us with an excellent example of mature Soviet operational art in its response to high-intensity war.

The next historical case moves down the operational continuum to the level of mid-intensity war. The Korean war, following closely on the heels of the last world war, found the United States sadly unprepared for major combat. The surprise attack of the North Korean Peoples Army, (NKPA), on the 25th of June, 1950, rapidly overwhelmed the South Koreans. By the 30th of June, the United States authorized direct military intervention to halt the NKPA advance.

Notwithstanding the introduction of American forces, the NKPA juggernaut rolled over Koreans and Americans alike. Throughout July, August, and early September, the NKPA continued to advance. Their offensive drive was finally halted along the Naktong line by a growing American presence. The last vestige of South Korea was compressed into a 50 by 80 mile area, known as the Pusan perimeter.

General Douglas MacArthur, the commander of the Far East Command, continually sought to seize the

initiative from the NKPA and break their assault. With the war only ten days old, MacArthur had conceived of an amphibious operation at Inchon as the key to decisive victory over the North Koreans.²³ While tactical setbacks forced him to delay the operation, the stabilization of the perimeter and growing U.S. forces allowed MacArthur to resume its planning. Codenamed *Operation CHROMITE*, it became the masterstroke of General MacArthur's career.

All of General MacArthur's experience, training, and instinct favored the selection of an amphibious operation to rout the North Koreans. The outline of the operation was simple. Army and Marine forces under the X Corps would conduct an amphibious landing at Inchon which would rapidly seize and liberate Seoul. At the same time, Eighth Army would break out of the Pusan perimeter and attack north to link with the X Corps. This operation would envelop the NKPA, sever their lines of communication, and permit their rapid destruction.

The outcome or **ends** which MacArthur targeted his counteroffensive to achieve were: trapping and enveloping the NKPA, destroying the bulk of the NKPA forces in South Korea, and expelling the remaining enemy units from below the 38th parallel. The **endstate** envisioned for *CHROMITE* was the liberation and

reoccupation of South Korea by U.S. forces.

Again, we note that the aim arrives at these outcomes from a different perspective. The commander's aim inherent in this counteroffensive was to undertake an offensive operation which would "stun, overwhelm, and trap the NKPA."²⁴ Operation *CHROMITE* would incorporate an amphibious attack at an unexpected location to surprise the enemy. The operation would then sever the enemy's lines of communication, paralyze his logistics, and eventually incapacitate his fighting force.

MacArthur's intent for the counteroffensive is no less clear. The purpose of *CHROMITE* was to conduct an offensive operation which would inflict a rapid, decisive reversal on the NKPA forces in South Korea. The objectives assigned supported the attainment of the ends chosen for the campaign. The operation would accomplish these objectives through a strike from an unexpected direction, across inappropriate terrain, to seize the decisive juncture in the Korean peninsula. The final outcome of the campaign would be the liberation of South Korea, the destruction of the NKPA, and the disintegration of the North Korean threat.

Unlike our Soviet counterparts, American doctrine does not explicitly consider the role effects play in the achievement of a desired outcome. Instead, we rely

upon the intuitive genius of the commander to account for this phenomena. Professor Snyder notes that

. . . Having made this initial identification, (of the center of gravity), the commander must now determine how best to disarticulate, shatter or destroy that center of gravity. There are a number of ways in which the commander can bring about the cascading disintegration of the enemy center of gravity.²⁵

Selecting which way a given outcome is accomplished is essentially a case of deciding which effects lead in the preferred manner to the desired end.

It is to MacArthur's credit that he grasped the operational significance of Seoul and the necessity of an operation which would seize that decisive point. He recognized that only through an amphibious assault at Inchon would the course of action produce the conclusive effects required. Yet for all its apparent simplicity, the Inchon operation was fraught with controversy. Inchon was likely to become the site of an absolute debacle in the eyes of most experts. Why MacArthur selected Inchon in the face of strident opposition reveals a great deal about his consideration of effects.

The plan for Operation CHROMITE focused on the dislocation of all NKPA forces in South Korea through an amphibious assault into their rear. Among the desired effects of this maneuver were: the degradation of NKPA logistics and the disruption of the lines of

communication, the disorganization of NKPA forces, and the confusion, paralysis and moral disintegration of these units. The surprise, fear, and collapse of will generated by *CHROMITE* are critical effects which would facilitate the rapid destruction of the NKPA.

That MacArthur specifically considered these effects is a matter of historical record. Faced with an increasingly anxious Joint Chiefs of Staff, (JCS), General MacArthur defended his operation to the assembled Chiefs on the 23rd of August, 1950.

Surrounded by doubters and chided by General J. Lawton Collins, the Army Chief of Staff, for not considering Kunsan, MacArthur spoke in defense of his operation. His eloquent presentation laid out precisely what effects the Inchon landing would achieve, why those effects would prove decisive, and why the Inchon maneuver was the only course of action capable of generating the desired effects.²⁶ MacArthur's grasp of the situation demonstrated his intuitive understanding of the nature and use of operational effects.

Our final historical case seeks evidence of operational effects in the environment of low-intensity warfare. As we approach the breakpoint between war proper and conflict, we note that other elements of national power play more frequently in this

environment. Nonetheless, the generation of military effects at the operational level contributes to the ultimate outcome of low-intensity war. This discussion will focus primarily on the use of military means to achieve the desired end.

The end of World War II left much of Asia in turmoil. The precipitous exit of Britain from Malaya and the subsequent defeat of the Japanese destroyed much of the colonial stability established within the territory. The seeds of Asian nationalism and communism developed in this unsettled period. By wars end, a contracting British Empire faced a growing revolutionary threat in its former colony.

In 1948, the Malayan Peoples Revolutionary Army, known as the Min Yuen, began open, active insurgent operations against the post-war British military administration. These attacks and terrorist actions reached their peak in the 1951 to 1952 time period. Nevertheless, the appointment of Lieutenant General Sir Harold Briggs in 1949, and the later appointment of General Sir Gerald Templer in 1952, set the stage for a successful British response to the insurgency.

LTG Briggs was selected as the Director of Operations for Malaya in 1949. His prior service in Burma left him well acquainted with the regions problems. By 1950, Briggs developed a long term master

plan which would serve as the basis for all British efforts until the end of the crisis. The Briggs Plan incorporated both civil and military actions into a single, unified operation. In this lengthy campaign, military operations would play a supporting role. Nevertheless, they would make a vital contribution to the plans overall success.

The military portion of the plan essentially contained two elements: the creation of a security framework, and military operations to clear regions of the insurgents.²⁷ Extensive intelligence gathering, information dissemination, the creation of viable paramilitary and police forces, and comprehensive population controls were key elements in establishing a security infrastructure. Resettlement, food denial, and military clearance operations were the critical direct actions against the guerrillas. By the time of Brigg's departure in 1952, the basis for British success was established.

General Sir Gerald Templer's appointment as High Commissioner was the crucial step in the implementation of the plan. Templer made two major contributions to the operation. The first was an increased focus on the psychological aspects of the campaign. The second was a function of his position. Templer, as High Commissioner, provided the combined civilian and

military leadership which was absent from the campaign until this point.

The plan proposed to defeat the insurgency by building a competent Malayan infrastructure, isolating the insurgents from the general population, and destroying the guerrillas. The ends which the plan envisioned were the creation of a viable, self-sufficient Malayan administration and the eradication of the MRPA guerrillas. The endstate the plan hoped to create was a stable, self-governing Malaya, free of any internal insurgent threat. Templer's aim was to conduct a series of integrated, coordinated, civil and military actions which would defeat the MRPA revolution. Once again, we may reconstruct intent from the end, the endstate, and the aim.

General Templer's intent in implementing the Briggs Plan was to isolate, exhaust, and destroy the insurgents through a series of synchronized civil and military actions. The combined effects of these activities were crucial to a successful outcome in the insurgency. The military effects produced in this campaign contributed to and amplified the effects of the other elements of power.

In the Malayan crisis, the effects of all military activity would impact on two target groups, the guerrillas and the civilian population. The effects of

any military action on the public becomes a fundamental consideration in this unique environment. Among the specific operational effects generated by military action were: the gradual disruption of guerilla activities, the paralysis of insurgent command and control, the destruction of guerilla forces, and the steady isolation, disillusionment, and exhaustion of the insurgents. All of these effects would eventually break the will of the insurgents and terminate the crisis.

Again, we note in General Templer's performance a conscious and intuitive grasp of the nature of effects. This was a significant achievement because Templer faced a doctrinal void on two levels: the consideration of effects, and how to respond to a new form of warfare. Templer's comment about "gaining the hearts and minds of the people" is most indicative of his understanding.²⁸ He realized that the effects of operations against the insurgents must not only heighten their sense of danger, but must also improve the sense of security and well-being of the population.

A number of preliminary observations can be made from our review of these three historical cases. First, each example supports the premise that operational effects do exist in the practice of operational art. Second, the cases presented an

opportunity to view operational effects in the context of an actual campaign or major operation. Finally, we could observe what utility this theoretical construct may have had for the three operational commanders in the planning and execution of these campaigns. With these initial impressions in mind, let us now contrast the cases to more fully investigate the nature of operational effects.

IV. Analysis

So far, we have only considered our historical cases as isolated examples. Our study has raised the notion of operational effects and probed three selected campaigns to validate their possible existence. In each case, we identified the conscious creation of effects in the planning and execution of a successful major operation. We will now explore the cases as a group to deepen our understanding of the nature of operational effects.

A number of similarities exist among the historical examples. The creation of effects was explicitly desired by the commander. In the planning phase, they arose as a product of the commander's vision. Once the desired effects were selected, the commander and his staff had to choose the course of action most likely to bring them about. These effects

were translated into military conditions and further elaborated in the actions and tasks assigned to tactical echelons. Overall, we observe a back-to-front analytical process which derives desired effects from the end, and selects the course of action for the effects it generates.

This element of linkage also applied during the execution of the plan. Each commander evaluated the effects produced by the actions of his forces. If they failed to produce the desired effects, the commander canceled counterproductive activities. Another alternative was to initiate other actions more likely to generate the desired effects. Courses of action which yielded the desired effects were continued, reinitiated, or reinforced with additional assets. Achievement of the operational effects, identified in the campaign plan, served as criteria to measure the success or failure of these operations.

What we have classified as operational effects appears to be a cumulative aggregation of the effects produced by the tactical battles and engagements. The principle distinction is that operational effects were amassed over relatively longer periods of time and larger areas of space. The effects generated at a lower level could reinforce and multiply each other, or conversely, negate each other. This interaction of

lower-level effects would lead to operational effects which were qualitatively different in their impact on larger elements of the enemy force.

A few notable differences surfaced among the examples as we traversed the operational continuum. A greater measure of similarity existed between the effects desired and produced at the high- to mid-intensity points on the continuum. In the Malayan campaign, the nature of the military contribution shifted to a broader range of actions. The effects to be produced also shifted and broadened in a like manner. This case displayed a larger portion of the range of effects which may occur as military actions vary to include other than combat actions. It also implies that the type of effects desired will change as we move closer to low-intensity war or conflict.

Another significant variation was the Soviet's explicit consideration of the operational effect. By the end of World War II, Soviet operational art had reached a mature stage. The necessity of planning for, producing, and maintaining operational effects was not left to chance. Soviet commanders selected specific modes of action for the effects they would produce. This evolution of doctrine and operational art stands in sharp contrast to the British and American experience. The respective commanders relied on their

intuitive genius to guide them into a consideration of operational effects and its consequences for their campaigns.

Having noted these similarities and differences, we should now shift our focus to a reassessment of the nature of operational effects. First, we need to consider whether our definition adequately described the phenomena. Each historical example supported the theoretical construct of operational effects. By applying the definition, the probable effects were identified and analyzed in these cases. We were able to distinguish consequences of action which were distinct from the other doctrinal concepts. Likewise, the effects identified had the qualities and characteristics inherent in the definition. The definition appears to be valid, at least as a first attempt to grasp the nature of operational effects.

Next, we note that American doctrine relies on the intuitive understanding of the commander to incorporate operational effects into the campaign plan. Doctrine's unstated assumption is that the comprehension and consideration of effects is an integral part of the commander's *coup d'oeil*. Yet, effects are an inherent part of the mechanism of war. Actual and perceived effects are the product of every action which occurs. As the effects of any given action may span all three

domains, which one will be critical depends on the context and nature of the war, and the unique opponent we face. Our doctrine fails to adequately consider the interactive opponent and consequently is action-oriented rather than effects\results-oriented. This failure to explicitly consider the role of effects on an interactive opponent remains a serious flaw within our doctrine.

Major Frederic E. Abt, in his monograph on the operational endstate, examines "the criticality of the operational endstate" as "the cornerstone of the operational level of war."²⁹ He correctly identifies the role played by the endstate as the target of activity at the operational level. However, the historical cases indicate the potential danger present if we focus solely on the endstate. This does not mean that the notion of effects predominates or subordinates the importance of the end. The notion of effects is both complementary and supplementary to it. Operational commanders and planners must be guided by the twin considerations of end and effects in order to produce an adequate campaign plan.

Furthermore, the notion of effects makes a significant contribution to the process of campaign planning and execution. Understanding operational effects allows the commander to explain his vision and

communicate his intent. This tells subordinates why actions are being undertaken, helps identify the main effort, and establishes the criteria for success and failure. Nevertheless, we should recognize that a knowledge of operational effects is not a panacea for operational design. The construct does not provide a cookie-cutter approach to successful campaigns. Rather it enjoins commanders and staffs to consider the role of effects on both friend and foe during the campaign.

Ultimately, we owe an answer to the question of the utility of operational effects. The theoretical construct performs three broad functions which substantiate its usefulness. Operational effects clarify the linkage between ends and actions in the intellectual process which conceptualizes campaigns. It provides a framework for analysis and serves as a guide to discerning between appropriate and inappropriate courses of action. As such, this notion refines the practice of operational art and improves the quality of our campaign plan.

Second, it supports several of the tenets identified in the U.S. Army War College report on campaign planning.³⁰ An understanding of operational effects helps define purpose, aids in communicating intent and vision, and formulates the military conditions desired for the campaign. Finally,

incorporating effects into our doctrinal approach ensures a focus on the enemy and not on ourselves. This outward-looking perspective makes us a better judge of the enemy's reactions and counteractions. This approach acknowledges what Clausewitz described as the reactive nature of warfare.³¹

The criteria to evaluate the significance and relevance of operational effects are Clausewitz's notions of mass, space, and time.³² Mass is not a static concept. Its role continues to evolve and is constrained during employment by the historical and technological context of a given war. Nevertheless, mass remains essential to the production of combat power required to decide engagements, battles, and campaigns.

Major Anthony M. Coroalles, in a discussion of operational tempo, notes that the use of force occurs within two mediums: space and time.³³ It is the interaction of mass within the mediums of space and time which serves as the final arbiter of the successful use of force. In that regard, our theoretical construct should accomplish three things: aid in the generation and employment of decisive mass, ensure mass is applied at the critical loci in space, and ensure mass is applied at the critical moments over time.

Our review of theory indicated a void in our perception of the relationship between actions and their outcomes. The construct of effects spans this void. At the operational level, our understanding of effects assists in determining what forces constitute appropriate mass. By applying this concept, we seek to identify which points will prove decisive, select critical moments for action over time, and employ mass to achieve decisive effects over our opponents.

The historical cases demonstrated the practical application of this process. In each case, commanders selected the appropriate force to mass in order to produce a given series of effects on the battlefield. Whether driven by doctrine or intuitive genius, each commander specifically considered effects during the planning and execution of operations. Each used effects as a guide to determine where and when to employ their massed combat power to achieve definitive and conclusive mastery of their opponents. In short, the notion of effects played a key role in the effective use of mass in space, and over time, during the campaigns.

The application of the criteria of mass, space, and time to the construct appears to validate its significance. We may judge the construct as such, because the notion of effects reflects reality as we

have observed and interpreted it. Incorporating effects into our theoretical 'toolbox' improves the quality of the framework for analysis that we bring to warfighting.

V. Conclusions

This monograph's central theme is the clarification and expansion of our theoretical understanding of the operational level of war. This excursion into theory is not merely an academic exercise. Theory grants us insights into the intellectual process through which we visualize, plan, and conduct war. It also provides the necessary tools to dissect and analyze the mechanism of war and to study the interaction of its components. Whether we articulate a definitive theory or not, the construction of doctrine and the practice of military art remain dependent on our inherent understanding of theory.

For whatever reason, the American army scrupulously avoids an explicit theory of war. This lack of appreciation for theory has led us into a morass of confused terminology and concepts. Until recently, we failed to produce adequate definitions of the levels of war, their characteristics, and their interrelationships. Likewise, the notions of end, aim, endstate, concept, and intent remain poorly defined and

little understood in spite of their common usage in our army. More dangerous still, our aversion to theory blinds us to the interactions and linkages present in war. It makes us reluctant to search our doctrine for gaps and inconsistencies which inhibit our understanding of this complex phenomenon.

In that regard, our theoretical review indicates one such potential gap and proposes a theoretical construct, operational effects, to bridge this void. This notion of effects is intrinsically related to the other concepts. It provides the linkage between actions and their outcomes. The construct does not supplant, but complements and expands our current understanding of the intricate interactions inherent in war. Effects are the key to a missing link in American doctrine.

In addition, theory provides insights into the nature of effects themselves. They are consequences of action which apply across the operational continuum and span the moral, physical, and cybernetic domains. Their impact on the enemy is a crucial part of their nature because effects are both actual and perceived consequences. These observations of effects permit us to formulate a working definition and to search historical experience for evidence of their existence.

The cases furnished ample evidence of the

importance of effects at the operational level of war. They confirm our initial impressions of the nature of effects, the range of effects possible, how they differ across the continuum, and the relationship of effects and operational art. We note that effects played a key role in defining purposeful action. This central role performed by effects was decisive in confronting a reactive adversary in war.

The proposed definition of operational effects is at least a workable first description of the phenomena. However, our select group of examples merits further study to refine and validate the construct more fully. Each case in the monograph was a successful operational campaign where the commander clearly understood the nature of effects. Other cases must probe whether the failure to identify effects led to an unsuccessful campaign, or conversely, if an understanding of effects was of no value in preventing disaster.

Our doctrinal reliance on an intuitive understanding of effects has scarcely met the needs of the American military at the operational level. Equally important, it ignores an intrinsic component of the mechanism of war. We need a change in focus that replaces our action-oriented, inward-looking approach to an enemy-oriented, effects\results outlook. Specifically, we need to incorporate and integrate the

broad notion of effects into our theory, doctrine, and operational art. The payoffs for this addition will be an improvement in the quality of campaign design, increased sophistication of American operational art, and an advanced understanding of war and its operational level.

ENDNOTES

1. Carl von Clausewitz, On War, ed. Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1976), p. 132.
2. For a more detailed discussion of these events see COL David M. Glantz, The Soviet Conduct of War, (Fort Leavenworth, KS: Soviet Army Studies Office, U.S. Army Combined Arms Center, March 1987), pp. 2-7.
3. Clausewitz, pp. 204-209. In Book Three, chapters 11 & 12, Clausewitz discusses the relationship between the three mediums of mass, space, and time.
4. Philip Babcock Gove, ed., Webster's Third New International Dictionary, Unabridged, (Springfield, MA: Merriam-Webster Inc., 1981), pp. 666, 2371. Webster defines a theory as "a coherent group of general propositions used to explain a given class of phenomena." A doctrine is defined as "a particular position, principle, or policy taught or advocated as a guide to action or belief."
5. James J. Snyder, "The Loose Marble - and the Origins of Operational Art," Parameters, 19 (March 1989), p. 85.
6. An excellent summarized discussion of the Soviet approach to war is presented by: Christopher Donnelly, Red Banner, (Couldson, England: Jane's Information Group, Ltd, 1988), pp. 101-113.
7. Headquarters, Department of the Army, FM 100-2-1: The Soviet Army, Operations and Tactics, Initial Coordinating Draft, (Washington, D.C.: Government Printing Office, September 1989), pp. 1-11.
8. Headquarters, Department of the Army, FM 100-5: Operations, (Washington, D.C.: Government Printing Office, May 1986), p. 9.
9. Ibid. p. 10.
10. Ibid. p. 10.
11. OBL Hartmut Zeherer, Operational Command and Control, (Fort Leavenworth, KS: from a copy of a lecture given 27 Feb 91), p. 5.
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13. Webster pp. 747-748.
14. From a letter entitled "Commander's Intent," (Hq, Ft. Leavenworth, KS: 14 September 1990), Providing the definition of commander's intent approved by General John W. Foss, Commanding General, U.S. Army Training and Doctrine Command.
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17. Gordon F. Atcheson, "AirLand Battle Doctrinal Tenets in Operational Art: Do We Need an Output-Oriented Tenet That Focuses on the Enemy?" Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College 1990, 2.
18. James J. Snyder, Theoretical Paper No. 3, (Fort Leavenworth, KS: School of Advanced Military Studies, U.S. Army Command and General Staff College), p. 50.
19. G. K. Zhukov, The Memoirs of Marshal Zhukov, (New York: Delacorte Press, 1971), p. 519.
20. William M. Conner, Analysis of Deep Attack Operations: Operation Bagration, Belorussia, 22 June-29 August 1944, from The Evolution of Modern Warfare, Term II Readings, (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1987), p. 160.
21. Zhukov, p. 521.
22. Ibid. p. 525.
23. Roy E. Appleman, South to the Nakdong, North to the Yalu, (Washington, D.C.: Center of Military History, U.S. Army, 1961), p. 488.
24. Clay Blair, The Forgotten War, (New York: Anchor Books, 1987), p. 286.
25. Snyder, Theoretical Paper No. 3, p. 27.
26. D. Clayton James, The Years of MacArthur, Volume III, 1945-1964, (Boston: Houghton Mifflin Company, 1985), pp. 467-471.
27. William Jackson, Withdrawal From Empire, (New York: St. Martin's Press, 1986), p. 91.

28. Edgar O'Ballance, The Communist Insurgent War, 1948-60, (Hamden, CT: Archon Books, 1966), p. 129.
29. Frederic E. Abt, "The Operational Endstate: Cornerstone of the Operational Level of War," Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College 1988, p. 2.
30. Colonel William W. Mendel and Lieutenant Colonel Floyd T. Banks, Campaign Planning: Final Report, (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1988), p. 8.
31. Clausewitz, p. 149.
32. Ibid. pp. 204-209.
33. Anthony M. Coroalles, "Fighting in the Medium of Time: The Dynamics of Operational Tempo," Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College 1988, p. 1.

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