OPERATIONAL MANEUVER AND FIRES: A ROLE FOR NAVAL FORCES IN LAND OPERATIONS

A Monograph

by

Major Richard J. Marchant

Infantry

School of Advanced Military Studies
United States Army Command and General Staff College
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The purpose of this monograph ~~is to~~ determine the role of naval forces in land operations at the operational level of war. In the past decades, military failures were perceived by Congress as a result of the inability of the services to work effectively together. Accordingly, the 1986 Goldwater-Nichols Department of Defense Reorganization Act directed reforms in the military establishment. Legislation chartered the Joint Chiefs of Staff to develop joint warfighting doctrine and institute reforms. Unfortunately, the services and not the joint staffs were delegated the responsibility for developing joint doctrine on the identified issues. Service proponency may result in the dissemination of parochial views. As such, changes will take years to achieve. Preceding this legislation, the services separately developed warfighting concepts in the Army's AirLand Battle Doctrine and the Navy's Maritime Strategy. (continued on other side of form)

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Yet we may need a genuine unity of the services' warfighting capabilities in order to defeat the enemy. It must be determined how naval forces can contribute to the land war in the Central Region.

This paper will examine the theoretical basis of operational maneuver and fires, and determine whether naval capabilities are compatible with these operational concepts. The criteria to determine the feasibility of employing naval assets as an operational maneuver force will be initiative, agility, depth and synchronization. The criteria to determine whether naval assets can provide viable operational fires will be depth and synchronization. Next, the paper will analyze an historical example of naval forces employed at the operational level of war in order to evaluate theory in light of historical evidence. Finally, using this model, the paper will suggest a role for naval forces in the Central Region.

The conclusion of the paper is that at the operational level of war, naval forces can directly influence the ground war in the Central Region. It is necessary for planners to understand and articulate how best to use our maritime strength to help defeat a continental power like the Soviet Union. Carrier battle groups and amphibious forces can constitute a viable operational maneuver force against the enemy's flank. Equally important, carrier based aircraft, complemented by TOMAHAWK cruise missiles and naval gunfire, can provide effective operational fires. Naval power can contribute to the land campaign. As such, joint preparedness requires us to think and plan as a team.

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Richard J. Marchant
Major, Infantry

School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

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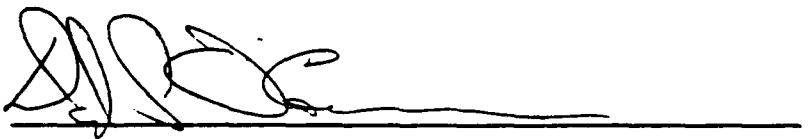

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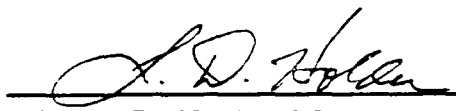

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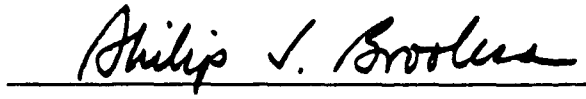

Director, Graduate Degree Program

Philip J. Brookes. Ph.D.

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ABSTRACT

OPERATIONAL MANEUVER AND FIRES: A ROLE FOR NAVAL FORCES IN LAND OPERATIONS, by Major Richard J. Marchant, USA, 50 pages.

The purpose of this monograph is to determine the role of naval forces in land operations at the operational level of war. In the past decades, military failures were perceived by Congress as a result of the inability of the services to work effectively together. Accordingly, the 1986 Goldwater-Nichols Department of Defense Reorganization Act directed reforms in the military establishment. Legislation chartered the Joint Chiefs of Staff to develop joint warfighting doctrine and institute reforms. Unfortunately, the services and not the joint staffs were delegated the responsibility for developing joint doctrine on the identified issues. Service proponency may result in the dissemination of parochial views. As such, changes will take years to achieve. Preceding this legislation, the services separately developed warfighting concepts in the Army's AirLand Battle Doctrine and the Navy's Maritime Strategy. Yet we may need a genuine unity of the services' warfighting capabilities in order to defeat the enemy. It must be determined how naval forces can contribute to the land war in the Central Region.

This paper will examine the theoretical basis of operational maneuver and fires, and determine whether naval capabilities are compatible with these operational concepts. The criteria to determine the feasibility of employing naval assets as an operational maneuver force will be initiative, agility, depth and synchronization. The criteria to determine whether naval assets can provide viable operational fires will be depth and synchronization. Next, the paper will analyze an historical example of naval forces employed at the operational level of war in order to evaluate theory in light of historical evidence. Finally, using this model, the paper will suggest a role for naval forces in the Central Region.

The conclusion of the paper is that at the operational level of war, naval forces can directly influence the ground war in the Central Region. It is necessary for planners to understand and articulate how best to use our maritime strength to help defeat a continental power like the Soviet Union. Carrier battle groups and amphibious forces can constitute a viable operational maneuver force against the enemy's flank. Equally important, carrier based aircraft, complemented by TOMAHAWK cruise missiles and naval gunfire, can provide effective operational fires. Naval power can contribute to the land campaign. As such, joint preparedness requires us to think and plan as a team.

TABLE OF CONTENTS

Section		Page
I.	Introduction	1
II.	Operational Maneuver	5
III.	Naval Capabilities and Operational Maneuver	13
IV.	Operational Fires	19
V.	Naval Capabilities and Operational Fires	22
VI.	Historical Example	27
VII.	Naval Assets and the Central Region	31
VIII.	Conclusion	37
Endnotes		41
Bibliography		46

I- INTRODUCTION

Operational Art requires an understanding between the science of theory and the art of doctrine. Theory is a structure of knowledge which allows us to collect and organize experiences and ideas, in order to apply them to other situations. It establishes a set of principles and terms which explain the nature of war. Doctrine is the application and practice of theory. As such, it is an art requiring an understanding of how to skillfully undertake war. Thus war is both a science and an art.

Our capstone doctrinal manual, Field Manual 100-5, describes Operational Art as requiring "broad vision, the ability to anticipate, a careful understanding of the relationship of means to ends, and effective joint and combined operations."(1) Effective joint warfighting requires us to understand, define and articulate operational concepts throughout all the services. Both Karl von Clausewitz and Baron de Jomini realized that without a common basis of understanding, discussions of war would be fruitless.(2)

Once a common understanding exists, joint operations require the operational commander to best apply all the resources available to accomplish the mission. However, in the past decades, military failures were perceived by Congress as a result of the inability of the services to work together. Accordingly, the 1986 Goldwater-Nichols Department of Defense (DOD) Reorganization Act directed reforms in the military establishment. This legislation, along with DOD Directive 5100 clearly directed that the Chairman, Joint Chiefs of Staff, develop and publish joint doctrine to guide joint

task force commanders.(3)

As a result of the legislation, the J-7 Directorate of the JCS was formed. One of its chief responsibilities is to publish joint doctrine.(4) Accordingly, the J-7 published JCS Publication 1-01, the capstone joint doctrinal manual. Unfortunately, the services, not the joint staff were given responsibility for developing joint doctrine for thirty-five doctrinal subjects.(5) This approach may not result in adequate joint warfighting doctrine. Service proponency for joint doctrine is more likely to produce parochial views, continued service rivalry and separate Army and Navy joint warfighting doctrine. To date, the Army and Navy have minimal joint doctrine. Changes in joint warfighting doctrine are sure to take years to achieve.

Preceding this legislation, the services developed separate warfighting concepts: the Army's AirLand Battle Doctrine and the Navy's Maritime Strategy. Maritime theory deals with control and exploitation of the sea, toward establishment of control on land.(6) Admiral James D. Watkins described the Maritime Strategy in three phases: deterrence, seizing the initiative and carrying the fight to the enemy.(7) The second two phases could include projecting naval power on land. Naval Warfare Publication 1 (NWP 1) states that "sea control is the fundamental function of the Navy and connotes control of designated sea lanes...(8) This publication also addresses projecting naval power on land. NWP 1 states:

> Power projection covers a broad spectrum of offensive naval operations including employment of carrier based

aircraft, amphibious assault forces and naval bombardment with guns and missiles of enemy targets ashore in support of air or land campaigns.(9)

Despite this recognition of dual missions, the Navy considers sea power and control as its primary mission. Naval commanders naturally focus on winning the war at sea, as land commanders focus on the land. Thus, direct naval involvement in ground operations is a peripheral activity.(10)

However, some writers contend that "...the line separating land and maritime theaters is fast becoming blurred."(11) Technological advances in range, accuracy and lethality of weapon systems have closed the distance between land and sea forces. Additionally, budgetary constraints have limited the number of systems available to the services. Therefore within a theater of operation, land and sea operations cannot be regarded as separate entities. This requires us to fight as a team using all resources, in any combination, to ensure success.

This paper will analyze the possible operational level employment and role of naval forces which can influence the war ir the Central Region. This will be accomplished by determining the theoretical basis of operational maneuver and fires, and by determining whether naval capabilities fit within these operational concepts. Additionally, other operational terms will precipitate from the analysis of operational maneuver and fires. The criteria to determine the possibility of employing naval assets as an operational maneuver force will be initiative, agility, depth and synchronization. The criteria to determine whether naval assets

can provide viable operational fires will be limited to depth and synchronization.

Next, the paper will examine an historical example of how naval forces have been employed at the operational level of war. The intent is to evaluate military theory in light of historical evidence. The analysis is structured around the operational concepts of maneuver and fires.

Finally using this model, the paper will suggest how naval forces could possibly be employed at the operational level of war to influence the land battle in the Central Region. The current Maritime Strategy focuses on conducting a Northern Flank offensive in Europe in the Norwegian and Barents Seas, and the Kola Peninsula against the Soviet Northern Fleet. This strategy has merit and is not being disputed in this paper. However, war is unpredictable and other options need to be pursued. This paper will consider the role and possible employment of naval force, in the North and Baltic Seas and in the waters around Denmark.

This analysis will yield some indicators of how operational commanders must think about war and integrate service assets. Joint preparedness requires us to think and plan as a team, rather than autonomously. The services are not mutually exclusive. As such, the conduct of the campaign must be pulled together and harmonized with all the services. We must know how to employ naval assets and apply naval power to land operations effectively.

II- OPERATIONAL MANEUVER

Defining operational maneuver must begin with theoretical underpinnings. By identifying the theoretical origins and analyzing doctrinal definitions, we can better understand the relationship between maneuver and the AirLand Battle tenets. Once this is accomplished, we can analyze whether a naval force is viable as an operational maneuver force using initiative, agility and depth as criteria.

In On War, Karl von Clausewitz devoted a great deal of attention to maneuver. He states that the "aim of maneuver is to bring about favorable conditions for success and then to use them to gain advantage over the enemy."(1) A distinction exists between tactical and operational maneuver. While tactical maneuver seeks to set the terms of the battle, operational maneuver seeks a decisive impact on the conduct of a campaign by attempting to gain a positional advantage before battle.(2) Operational maneuver should result in positioning of forces in such a manner that the enemy feels threatened and compelled to act. As such, maneuver should be directed against something the enemy deems important.

The enemy's operational flanks are on both sides of his lines of communication. A maneuver against an operational flank may provoke a response from the enemy. Clausewitz states that "if a long line of communication is covered poorly or not at all, the smallest operation against it holds promise of success."(3) Maneuver toward the enemy's flank will threaten his lines of communication and retreat, forcing the enemy to react.

Along with maneuver to threaten an enemy's LOCs, Clausewitz understood that with maneuver numerically inferior forces could concentrate against a part of superior enemy force. In these situations, effective concentration of a smaller force may achieve local superiority. The theorist calls this "relative superiority." Clausewitz understood that a careful "calculation of space and time" was required to maneuver and concentrate an army against a selected location of the enemy line.(4) A relationship between maneuver and the decisive point exists. Clausewitz stated:

> We believe then that in our circumstances,...a main factor is the possession of strength at the really vital point...To achieve strength at the decisive point depends on the strength of the army and the skill with which this strength is employed...Consequently... in the absence of absolute superiority, relative superiority is attained at the decisive point.(5)

Linked to the decisive point is the center of gravity, where the mass of the army is concentrated most densely. Clausewitz considers the center of gravity as the "hub of all power and activity."(6) By maneuvering to achieve a positional advantage, a force is concentrated to form a center of gravity more quickly than his opponent.(7) Thus the concentration of forces at the decisive point puts strength, albeit relative superiority, against weakness.

Baron de Jomini, a contemporary of Clausewitz, is credited with developing the concept of decisive point in its relationship to the concentration of force.(8) Jomini believed that maneuver allowed a commander to select when and where to concentrate his force against a part of the enemy's army. He describes decisive points as "...the possession of which, more than any other, helps

to secure victory..."(9) In The Art of War, Jomini tells us the fundamental principle of war is embraced by the following:

- To throw by strategic movements the mass of an army, successively, upon the decisive points of a theater of war, and also upon the communications of the enemy as much as possible...

- To maneuver to engage fractions of the hostile army with the bulk of one's force.

- On the battlefield, to throw the mass of forces upon the decisive point, or upon that portion of the hostile line which it is of the first importance to overthrow.

- To so arrange that these masses shall not only be thrown upon the decisive point, but that they shall engage at the proper times and with energy.(10)

Two additional Jominian concepts deal with maneuver: lines of operation and combinations. Lines of operation stretch from the base to the objective. These lines extend to the end of a force's power projection. As such, these lines of operation will lengthen in proportion to the power projection capability. For example, during the April 1986 bombing raid on Libya, the lines of operation for the Air Force F-111s began in Great Britain, ran a circuitous route for 2,800 nautical miles, and terminated at the objective, Gaddafi's headquarters in Bab al Aziziya.

Equally important, a force can maneuver to a position short of the decisive point, but threaten to project power forward. In the same operation against Libya, the lines of operation for the aircraft carriers originated at Naples and ended at Benghazi, the objective for the A-6s flying from the decks of the America and Coral Sea. In either case the effects of maneuver are extended along the lines of operation to the decisive point.

Operational maneuver also gives rise to the use of

combinations. Combinations deal with synchronizing the activities of various forces to bring about an operational result. For example, as an operational force maneuvers to a decisive point along the enemy's flank to attack the enemy's lines of communications, another force fixes the enemy to the front. The combination of the offensive flanking force and the defensive fixing force will make the enemy look in two directions and shift assets in response to both threats.

Combinations are related to lines of operations. The game of chess provides a good illustration of these concepts. During chess play, a number of chess pieces are coordinated and positioned for the purpose of attack, while others are maintained to defend the king. An attacking maneuver that threatens to capture a king is called check. Hence the line of operation of the attacker originates at the initial position, runs through the threatening position and extends to the opponent's king. The opponent cannot avoid check. Now threatened, the opposing player must react by moving the king, capturing the checking piece or blocking the check. As the opponent responds, the attacker can combine other fixing and attacking moves. This combination of activities leads to the opponent's defeat.

Moving from theory to doctrine, FM 100-5 refines the definition of operational maneuver. First, maneuver is described as:

> ...the movement of forces in relation to the enemy to secure or retain positional advantage...the means of concentrating forces at the critical point to achieve

> surprise, psychological shock, physical momentum and moral dominance...(11)

Operational maneuver is an attempt to gain positional advantage in relation to the enemy before battle. If battle does occur, the positional advantage will allow the exploitation of "tactical successes to achieve operational results."(12)

Battle may not occur. Then the positional advantage gained from maneuver could shatter the enemy's cohesion and destroy his will to fight. The mere presence of a destructive force of unknown size and intentions along a flank could have an adverse impact on the enemy.(13) Confusion and fear would totally disrupt his effectiveness or force him to re-dispose his force.

Achieving operational maneuver reflects the tenets of AirLand Battle Doctrine. First, the battlefield must be extended in depth due to our ability to see, range and move over extended distances. Operational maneuver is closely tied to operational depth. Operational depth is defined as:

> That area beyond tactical depth, in which both the defender and attacker can achieve freedom of maneuver, and if gained by the attacker provides opportunity to destroy or defeat the enemy without engaging the majority of his defenses.(14)

Depth provides the opportunity for freedom of action and allows a force to maneuver to positions of advantage in time away from the tactical battle. Without depth, freedom of maneuver does not exist. Depth applies to time and space.

With the "theater" extended in depth, the intent of operational maneuver is to gain the initiative. Beyond tactical depth, operational maneuver restores the initiative by forcing the

enemy to conform to the tempo and purpose of the attacker. Through maneuver the attacker affects with whom, when and where he will fight. Initiative allows the attacker to set the terms of the operation. The enemy must then respond to a precarious situation under unfavorable terms. For example, by seizing the initiative, surprise can be achieved where the enemy least expects. As described by Liddell Hart, the attacker can select the indirect approach against the "line of least expectation " or "least resistance."(15) Through operational maneuver the attacker gains the initiative which thus forces the enemy to react.

In order to maintain the initiative, operational maneuver requires agility and freedom of action. Agility is the ability to think and act faster than the enemy. James Schneider, the military theorist at the School of Advanced Military Studies, states that "...the important insight is in the speed which the process occurs...it paralyzes the defender's decision process."(16) To achieve the desired surprise and effect on the enemy, the attacker must act quickly and concentrate a force against a decisive point, or enemy vulnerability, quicker than the enemy. This requires favorable time and distance calculations, movement capabilities, a slower enemy and freedom of action. Additionally, Jomini tells us that by operating from a central position, use of interior lines will allow the attacker to move to a point more quickly than the enemy. Therefore agility, like depth, applies to time and space.

Equally important to operational maneuver is synchronization. Synchronization is the arranging of activities in time, space and

purpose.(17) These activities may be arranged simultaneously or sequentially, and can occur at the same place or at different locations. The combined consequences of these efforts need to have a favorable impact on the operational maneuver at the decisive time and place.

Hence, the goal of operational maneuver is to achieve a relational advantage that allows battle on favorable terms, forces the enemy to react, or exploits the outcome of previous tactical action. This is accomplished by concentration, or synchronizing the convergence of effort in time, space and purpose. With agility and surprise, operational maneuver gains a positional advantage in time. Finally, operational maneuver generates the tempo and sets the terms of battle.

These maneuver concepts, as articulated by Clausewitz and Jomini, are well understood by Naval theorists. In fact, Naval strategy is based on the larger framework of Clausewitz's and Jomini's theories of war. Alfred Thayer Mahan and Sir Julian S. Corbett, two naval theorists, both used Clausewitz's theory on war as their intellectual background to draw their studies.(18) Significantly, Mahan was also heavily influenced by Jomini. In Naval Strategy, Mahan states that central position, interior lines, lines of operation and concentration of forces apply to Naval warfare. Additionally he recognizes that concentration on a flank as a key principle and is "a question of distance, or, more accurately, of time."(19)

While Mahan dealt with primacy of the sea, Corbett focused on

the interdependence of land and sea power. For Corbett, naval and military theories were separated only by the physical media in which they operated. The two theories were complementary parts of a larger theory of war "which regards the fleet and army as one weapon, which coordinates their action and indicates the lines on which each should move..."(20) Since Corbett's time, technological advances have compressed time and distance. The age old distinction between sea and land warfare has been blurred, if not totally erased.(21)

Accordingly, joint doctrine must be applicable to varying theaters of operation and across the air, ground and sea mediums. Therefore, operational art necessitates great flexibility in employing the right combinations of forces.

III- NAVAL CAPABILITIES and OPERATIONAL MANEUVER

In order to determine how naval forces can contribute to the land campaign as an operational maneuver force, the capabilities of a carrier task force battle group and amphibious force will be analyzed. The carrier battle group (CVBG), task organized with one or more aircraft carriers and associated naval vessels constitutes a formidable force. Recent studies, war games and fleet exercises point to a current need of assembling three to four carrier battle groups in order to survive against concerted Soviet threats in key areas around Eurasia.(1) Furthermore, the 600 ship Navy plan calls for four CVBGs in the Sixth Fleet and five in the Seventh Fleet. With these carriers available, concentrating three or four for an operation would be possible.

Along with the aircraft carrier, the battle group consists of a wide array of vessels to protect and screen the carrier group, as well as project naval power. For instance, during the Joint Exercise conducted at the School of Advanced Military Studies, the carrier battle group, when augmented by two other CVBGs, constituted a significant force. This task force consisted of three aircraft carriers, seven guided missile cruisers, three destroyers, six frigates and four submarines. Not included in this count were the ships assigned to the surface action group.

This array of vessels provides the commander with an awesome offensive capability. The Navy regards the aircraft carrier battle group as the spearhead for its offensive strike capability.(2) This offensive combat power allows the Navy to take the fight to

the enemy and set the tempo. For example, Phase II of the Maritime Strategy calls for seizing the initiative and Phase III calls for carrying the fight to the enemy. Initiative is consistent with and inherent in naval operations.

With this offensive capability, carriers can move quickly and appear on the horizon at the decisive moment. This situation would confront the enemy with several mobile airbases along his flank which he had not expected.(3) This concentration of naval force achieves a degree of surprise. By maneuvering to attain a positional advantage in time over the enemy, the attacker sets the terms for the battle and gains the initiative.

From the carrier battle group's geographical position at sea, its lines of operation reach far inland. The CVBG creates a pulse of force which significantly threatens the enemy's flank. The enemy must acknowledge this naval force. This positioning will psychologically unhinge the enemy or force him to re-dispose his assets earmarked for other operations. For example, the enemy ground force operating with his lines of communication along the flank will possibly respond by: shifting air defense assets and priorities from the front to the flank; operating on alternate less desirable LOCs; limiting resupply operations during daylight; and by diverting combat forces to protect the flank.

These reactions would degrade the enemy's concentration of effort to his front. Since the enemy shifts assets or his attention to the flank threat, the friendly defending force may now face battle on more favorable terms. Hence, the positioning of a naval force

along the flank achieves a relational advantage over the enemy. The naval force's positioning works in combination with the ground force's activity.

As mentioned, maneuver creates an element of surprise. This surprise is achieved since continuous, precise location data on a naval force moving 500-600 miles in a day would be hard to ascertain. Additionally, positioning of enemy strike assets would be difficult, since the carrier moves with a vast array of protection.(4) As the CVBG maneuvers, protection includes the F-14 PHOENIX intercept missile system, the AEGIS cruiser, dedicated nuclear submarines and several other layers of antiair, antisubmarine and antisurface warfare.(5) These capabilities provide protection to the CVBG and keep the enemy at a distance. Hence the CVBG achieves an element of surprise.

This massive sea based force can move fast and sustain combat operations for extended periods of time. For example, the USS Enterprise can travel at 35 knots, operate ten years on its nuclear reactors, and carry twelve days aviation fuel for intensive operations; the Nimitz Class ships can travel at 30 knots, operate fifteen years, and carry sixteen days aviation fuel; and the Kitty Hawk and JFK Classes of conventionally powered carriers can travel at 30 knots.(6) Speed is necessary to concentrate. Due to refueling and provisioning at sea, these vessels can remain independent of shore bases for extended periods.(7) Speed over time is tempo.

With these speeds, the carrier battle group can attack over

great distances in a relatively short period of time. In a twenty-four hour period, the force can move 500 to 600 miles. The CVBG is capable of staging attacks from positions as much as 600 miles apart on consecutive days; attacks from the decks can be made out to 1200 miles with refueling support; and over a three day period, the carrier can attack targets over 3,000 miles apart.(8) In another illustration, two carrier battle groups can be 1200 miles apart on one day and less than 100 miles apart on the next day. These time and distance movement capabilities are significant. As such, agility allows dispersed naval forces to quickly concentrate at vulnerable positions along an enemy's flanks. These flanks may extend in depth throughout the theater of operations. Admiral Watkins provides a good example of the reach in depth of a carrier task force. A two carrier battle group with its air projection capability can typically cover 56,000 square miles. To illustrate the magnitude of this coverage, Admiral Watkins uses the eastern United States as an example. With carriers positioned at Richmond and Baltimore, interceptors can reach as far north as Albany and Boston, west to Detroit and Knoxville, and south to Columbia. Strikes could be launched to Atlanta, Chicago and St. Louis.(9) Naval combat power can be quickly concentrated at the decisive point miles away. This extended reach, along with the vast distances that the mobile airbases can cover in a relatively short time, provide depth to the operation. In addition, as mentioned earlier, sustainment is extended in time. As such, naval forces inherently operate in depth.

Likewise, synchronization is characteristic of naval operations. For example, on the Northern Flank, U.S. attack submarines and other antisubmarine warfare assets would initially position well forward to counter any Soviet submarines. Once the enemy's submarine threat is eliminated, carrier battle groups would move forward to destroy Soviet naval and air assets on the Kola.

Like the aircraft carrier forces, amphibious forces can maneuver against the enemy. In fact, amphibious maneuver is the Marines' main mission.(10) While having the capability to move 400 miles in a day, the amphibious force can also appear unexpectedly on the horizon.

Amphibious forces use surprise through over the horizon movements.(11) Improvements in expediting ship to shore movement with landing aircraft air cushion (LCAC) and MV-22A Osprey tilt rotor aircraft allows forces to operate from over the horizon.(12) The sudden appearance of a large amphibious force and the uncertainty of the objective area and possible landing sites along the enemy's flank present problems to the enemy. General P.X. Kelley states that "amphibious flexibility produces a distraction to the enemy's power of concentration" and forces the enemy to employ disproportionate amount of resources to counter the threat.(13) Amphibious forces set the terms of the battle.

This large force could be the assault echelons of a Marine Expeditionary Brigade (MEB). Currently, a MEB can be embarked on about twenty naval ships and remain aboard for extended periods of time. This capability will increase significantly in the next

decade. The LSD-41 and LHD-1 Class amphibious assault ships now in production are all capable of moving in excess of twenty knots.(14) By 1996, the Navy will have over seventy-six amphibious ships capable of lifting the assault elements of both a MEB (12,500 personnel), and a Marine Expeditionary Force (40,000 personnel).(15)

Initiative, agility, depth and synchronization are all embedded in CVBG and amphibious force operations. Naval forces seek the initiative through maneuvering, positioning and timing. In Naval Strategy, Alfred Mahan states that "the characteristic of the offensive is that it makes the attack instead of accepting it..."(16) This offensive action generates the tempo, sets the terms and achieves the initiative. Time and distance considerations allow naval forces, to concentrate their efforts and suddenly appear from over the horizon. Capabilities allow the force to concentrate these efforts in depth. The combined consequences of these efforts are synchronized to have an impact on the decisive place and time. With agility and surprise, the naval force gains a position of advantage in time over the enemy. Time is critical since situations are fluid, and the enemy initially confused and paralyzed, must attempt to overcome his disadvantages. To conclude, naval forces can be employed as an operational maneuver force.

IV- OPERATIONAL FIRES

Theoretical origins of operational fires do not come directly from Clausewitz and Jomini. Both theorists' experiences were limited to the relatively short ranged firepower supporting the direct engagements between relatively immobile forces.(1) Since that time, the evolution of technological advances in weapon range, accuracy, lethality and mobility have altered the scope of war and extended the battlefield.

More contemporary writers such as B.H. Liddell Hart and Ferdinand O. Miksche had a better grasp on modern warfare and the idea of maneuver, supported by fires.(2) Liddell Hart wrote that "no attack in modern war is feasible or likely to succeed against an enemy in position, unless his resisting power has already been paralyzed either by surprise or preponderating fire."(3) Liddell Hart understood the capabilities of the aircraft to reach into the enemy's rear area with destructive force. He stated that airstrikes were effective whenever the "enemy forces assembled in density, or against his long narrow arteries and concentrated sources of supply."(4) This firepower could disrupt the enemy's cohesiveness and disable his defenses. The affects of theater fires are more than momentary. They help set the terms of combat by establishing basic conditions of operations. Once these conditions are achieved the attack can be successfully launched against the enemy.

Similarly, Ferdinand Miksche understood how to employ the aircraft's firepower to confuse and paralyze the enemy. He stated

that aircraft could mass rapidly and be used to silence artillery, halt reinforcements and isolate the fighting elements from their bases of supply.(5) Miksche foresaw air power working in concert with massed armor formations, complementing artillery fire, and adding depth to firepower in support of maneuver forces.(6)

Both writers envisioned the linkage between firepower and maneuver. Firepower extended the battlefield and produced the conditions needed for successful maneuver. Firepower could isolate the battlefield and demoralize the enemy. The effects of firepower assisted the maneuver force by reducing the enemy's combat effectiveness and cohesion.

Current doctrinal publications define operational fires. FM 100-5 states:

> Firepower supports friendly maneuver by damaging key enemy forces or facilities, creating delays in enemy movement, complicating the enemy's command and control, and degrading his artillery, air defense, and air support. At the operational level, firepower can also disrupt the movement, fire support, command and control, and sustainment of enemy forces.(7)

FM 100-6 attempts to be more definitive. Operational fires are described as those fires which facilitate maneuver to operational depth, isolate the battlefield by interdicting uncommitted forces and sustainment facilities, curtail the enemy's freedom of action and disrupt his mobility.(8)

A linkage exists between operational fires and maneuver. The effects of operational fires need to be synchronized with operational maneuver. In essence, the effects of intensive fires facilitate a force's freedom of maneuver in depth and allow the

force to attain positional advantage over the enemy. Operational fires accomplish this by confusing, disrupting, isolating and degrading the enemy prior to battle.

V- NAVAL CAPABILITIES and OPERATIONAL FIRES

In his paper on the "Integration of Naval Tactics and Maritime Strategy," Captain Wayne Hughes emphasizes the importance of firepower to naval tactics. He states that once engaged in battle, naval tactics are attrition oriented and are thus heavily dependent on firepower.(1) In order to understand how these naval firepower assets can contribute to land operations, weapon system capabilities must be understood. As such, the ability of naval forces to project destructive combat power ashore takes many forms.

Aircraft carriers provide a significant array of aircraft to accomplish multiple missions. A carrier based airwing's configuration varies in accordance with the mission and the carrier's deck capabilities. Typical airwing composition consists of two squadrons of fighter aircraft (twenty-four F-14 TOMCATS or F/A-18 HORNETS) for fleet defense, and three squadrons of attack aircraft (twenty-four A-7 CORSAIRS and twelve A-6 INTRUDERS) for interdiction and attack missions.(2)

Operating from the decks of the aircraft carriers, these attack aircraft can provide a strike capability with a great reach. While the F-14 performs air defense of the fleet, the F/A-18 HORNET can double as an attack aircraft. This swing aircraft can attack targets out to 550 nautical miles (nm) with the HARM (high speed antiradiation missile), general purpose bombs, rockets, mines, MAVERICKS and HARPOONS. The A-7 CORSAIR has a combat range of 430 nm. The all weather A-6 INTRUDER has a range of 900 nm. The CORSAIR and the INTRUDER can carry 15,000 and 18,000 pounds of

ordnance respectively, including bombs, mines, missiles, rockets, general purpose and cluster bombs.(6)

These aircraft capabilities offer flexibility to operations. The aircraft can carry a variety of ordnance to attack specific types of land targets. The amount of ordnance carried depends on the range, mission and type. For example, a fully loaded A-6 cannot operate out to 900 nm. Additionally, range can be increased significantly by inflight refueling. The F/A-18, A-7 and A-6 all can be refueled by the Navy's four KA-6D tankers which accompany the carriers. Both the A-6 and the A-7 can be configured with external fuel tanks to refuel other aircraft.(7) 58) Also, these aircraft can be refueled with Air Force KC-10s and KC-135s. The KC-135 does, however, require minimal modification.

An aircraft carrier battle group task force could consist of four aircraft carriers dedicated for a specific operation. These carriers could pool fighter aircraft and other assets, such as the AEGIS cruiser with its 200 nm umbrella, for air defense of the force.(8) Depending on the type of air squadrons on these carriers, there would be about 200 attack aircraft (including the HORNETS) available to surge against land targets. This task force could "tip the scales at a crucial moment in the battle."(9) Naval air could supplement Air Force assets. More importantly, the effects of this firepower capability could be synchronized to support an operational maneuver force.

Complementing and enhancing the Navy's carrier based strike aircraft is the TOMAHAWK land attack conventional cruise missile

(TLAM-C). This missile can deliver a one thousand pound warhead 700 nautical miles to within feet of the target.(6) Although the TOMAHAWK is not a substitute for the aircraft, it provides flexibility and an increase to firepower options.

Ideally the TOMAHAWK should be used against high value targets or against targets which are heavily defended by air defense assets. Preplanned targets could include command and control nodes, major bridges, oil refineries, power stations, SAM sites and airfields. The TOMAHAWK can penetrate sophisticated air defenses. These missiles are "difficult to detect, classify and shoot down...a TOMAHAWK radar section is estimated to be 1,000 times smaller than a B-52 and 100 times less reflective than a tactical fighter."(7) This would reduce losses to friendly aircraft otherwise scheduled to strike these same targets. In addition, TOMAHAWK strikes could soften up areas for subsequent air strikes.

The TOMAHAWK can be launched from a variety of ships and submarines. The Navy plans for ninety-seven surface ships and one hundred and seven submarines to be equipped with the TOMAHAWK.(8) Strike capabilities which previously depended on fourteen aircraft carriers, now increase to two hundred ships capable of delivering the missile, day or night, with pinpoint accuracy to the target.(9)

This increases the Navy's strike capability tremendously. For example, four surface action ships centered on a AEGIS cruiser, with a guided missile cruiser and two SPRUANCE class destroyers would routinely carry sixty to one hundred TOMAHAWKS, the equivalent of more than thirty combat loaded INTRUDER aircraft.(10)

These loads probably will not be all conventional land attack missiles. Missions and the threat situation may dictate TOMAHAWK variants such as the nuclear warhead versions.

Although the TOMAHAWK increases the Navy's firepower delivery options, the weapon system is not a panacea. The TOMAHAWK cannot be used against moving targets. Equally important, targets must be preplanned, due to the time required to load the targeting data into the weapon system's computer. Additional disadvantages include the small warhead size and the limited quantities available. Nevertheless, the TOMAHAWK is in its infancy. Future technological advances will increase the weapon's lethality and targeting options.

In addition to cruise missiles, the Navy can use guns to destroy targets ashore. For example, the four IOWA Class battleships are armed with nine 16 inch guns which can fire a 1,225 kg projectile out to thirty-nine kilometers.(11) With planned improvements in ranges and lethality, this weapon will be able to target to a greater depth.(12)

The ability for naval forces to project firepower ashore takes many forms. Carrier based aircraft can provide more than tactical aircover for landing forces or fleet protection. A concentration of naval air assets can be used in conjunction with an operational maneuver force. Aircraft from three to four carriers can surge to disrupt the movement, command and control and sustainment of enemy forces. This striking power can be complemented with conventional TOMAHAWKS. The extended ranges of aircraft and the TOMAHAWK allow

fires to be exploited in depth throughout the theater of operations.

These assets could be used in conjunction with an operational maneuver force or amphibious landing along the flank of the enemy. The synergistic effect of intensive aircraft and cruise missile strikes launched from mobile bases would effectively confuse, paralyze and isolate the enemy. The combined effects or consequences of an intensive air and missile attack could be sequenced to have an impact at the decisive time and place. These conditions would allow the operational maneuver force to gain a position of advantage over the enemy. Naval forces can clearly provide operational fires ashore.

VI- HISTORICAL EXAMPLE

On 15 September 1950, about twelve weeks after North Korea had invaded South Korea, General MacArthur initiated the Inchon landing known as Operation CHROMITE. Inchon took place on the heels of the dismal retreat of the United States and Republic of Korea (ROK) forces down the Korean Peninsula in June and July, to an enclave at the Peninsula's southern tip.(1) The objectives of Inchon were to land a two division corps behind the bulk of the North Korean People's Army (NKPA); to recapture South Korea's capital of Seoul for political and psychological reasons; to cut NKPA logistical lines; and to provide an anvil against which the U.S. Eighth Army, the hammer attacking from the south, would crush the mass of the NKPA.(2)

Historically, it is instructive to look at CHROMITE as an example of how naval forces were employed in combination with ground forces at the operational level of war. MacArthur understood that "control of the seas gives mobility to military power" and that "mobility and war of maneuver have always brought the greatest prize and the quickest decisions to their practioners."(3) Although MacArthur never used theoretical terms, it is easy to see his mastery of three concepts connected to operational maneuver: the center of gravity which was the mass of the NKPA; the decisive points of Inchon and Seoul from which the massed NKPA could be threatened; and the indirect approach which attacked the enemy's weakness, his vulnerable lines of communication. (4)

Inchon was the product of MacArthur's vision.(5) The stalemate

around the Pusan perimeter resulted in attrition warfare. MacArthur intended to seize the initiative by maneuvering a large force to the enemy's rear. He believed that CHROMITE was the "only hope of wresting the initiative" from the enemy.(6) In a cable to JCS on 23 July, MacArthur enunciated CHROMITE. In the message he stated:

> Operation planned mid-September is amphibious landing of a two division corps in rear of enemy lines for purpose of enveloping and destroying enemy forces in conjunction with an attack from Eighth Army. I am firmly convinced that early warning and strong effort behind his front will sever his main lines of communication and enable us to deliver a decisive and crushing blow. The alternative is a frontal attack which can only result in a protracted and expensive campaign.(7)

In order to make the vision a reality, MacArthur needed the support of all the services, especially the Navy. Naval objections included treacherous navigation, restricted movement due to islands, mud flats, extreme tides and high sea walls. Additionally, the planned amphibious assault would violate all the current amphibious doctrine.(8) Despite these objections, MacArthur won the support of the Chief of Naval Operations, Admiral Forrest P. Sherman.

Naval participation would be significant. Naval forces would conduct the maneuver by sea to the decisive point of Inchon and use naval firepower to isolate the Inchon-Seoul objective area. The maneuver required over 230 ships to move and support X Corps' estimated 70,000 personnel composing the 1st Marine Division and the 7th Infantry Division. To accomplish this, Joint Task Force 7, under Admiral Struble, was established along with six subordinate task forces.(9)

The maneuver was accomplished by organizing ships into

"movement groups according to speeds and mission, sailing from different ports, by different routes to reach the objective area at the required time."(10) In order to reach Inchon by the 15 September date, deployments were sequenced. For example, LSTs with the 1st Marine Division (less the 5th Marines) sailed from Kobe, Japan on 11 September; the 5th Marines were pulled out of the Pusan Perimeter and sailed on 12 March; the 7th Infantry Division departed Yokohama, Japan on 11 March to arrive at Inchon on 16 September behind the initial assault forces; and other supporting vessels departed from Sasebo, Japan throughout the period.(11) To arrive at the decisive point of Inchon at the proper time, time and distance calculations were critical. These activities were synchronized in order to progressively build up forces and to maintain the tempo of the operation.

While the assault forces were preparing to embark, naval and air operations were underway to isolate the Inchon-Seoul area.(12) Fires were provided by naval aircraft, cruisers and destroyers. From 4 thru 10 September, air attacks were conducted along the Korean west coast, 150 miles north and 100 miles south of Seoul and on diversionary locations such as Kunsan and Wonsan to deceive the enemy as to the objective.(13)

In addition to targeting in depth to confuse the enemy, Naval assets isolated the objective area, paralyzed the enemy and prevented reinforcements into Inchon prior to the assault landing. These intensive fires were synchronized to have an effect at the decisive time and place, the 15 September landing at Inchon.

Operational fires were delivered beyond the tactical beach assault area and in depth for operational purposes. These fires were sequenced and delivered in various combinations to support the operational maneuver to the Inchon-Seoul area.

In conclusion, operational maneuver allowed General MacArthur to break the stalemate, gain the initiative and strike deep in the enemy's rear, cutting his vulnerable LOCs. Naval and amphibious forces maneuvered to a position 150 miles in depth, to achieve relative superiority over the surprised and numerically inferior enemy. With agility and surprise, these forces concentrated their effort in time and space to converge at Inchon. This positional advantage threatened the enemy. The arrival of the initial assault, the main amphibious and the follow-on forces were all synchronized. Additionally, operational fires were synchronized to support the maneuver by confusing the enemy, isolating the objective area and saturating Inchon-Seoul prior to the landing. As a result of the successful application of operational art, MacArthur was able to trap the NKPA between the X Corps and the Eighth U.S. Army.

Operation CHROMITE provides an example of naval forces employed at the operational level of war. These forces were successful in their role as an operational maneuver force and in providing operational fires. During CHROMITE, the Army and Navy fought as a team using all their resources to ensure success.

VII- NAVAL ASSETS and the CENTRAL REGION

Our current doctrine for operational maneuver and fires establishes a baseline for comparing theoretical and historical insights. Furthermore, this paper determined that the Navy has the capability to conduct operational maneuver and provide operational fires. Now let us turn our attention from the theory and history, and examine how these naval assets can contribute to the land campaign on NATO's Central Front.

Militarily, control of the Baltic and North Seas, and Denmark is critical for operations in Europe. Denmark and the Baltic Approaches stand at the crossroads of naval and air communication links between Central and Northern Europe, and between the Baltic and North Seas.(1) Control of this area, with its twenty major ports, affords access to the North Atlantic via the North Sea. From these areas, the threat could interdict and jeopardize vital sea lines of communication from the United States to the European continent. Once in the North Sea, the Warsaw Pact Baltic Fleet would severely disrupt NATO shipping. Equally important, the major airfields in northern Denmark provide a staging area to launch deep air strikes in any direction. For example, from airfields in Denmark, Soviet Long Range Aviation can essentially range all of the North Sea and the east coast of the United Kingdom.(2)

The North Sea, Denmark and the Baltic Sea constitute the northern operational flank of the Central Front. Likewise, a Warsaw Pact offensive into Central Europe would result with the enemy's flank along the North and Baltic Seas and Denmark. This northern

flank stretches 550 nautical miles from the East/West German border to Ventspils in the Soviet Union. Obviously, the further west the enemy advances, the longer and more tenuous his LOCs become. Typical scenarios show the initial Warsaw Pact offensive pushing the Allies back, maybe west of Schleswig-Holstein.(3) In this scenario, the enemy's main front is most likely to cross the North German Plain between Hamburg and Hannover, moving west toward Brussels.(4)

At the same time, the Soviets intend to protect the flank of the Western TVD, their main effort. The Warsaw Pact amphibious and commercial ships in the Baltic are reportedly adequate to provide lift for three divisions.(5) In addition, airborne divisions could be made available.

Naval forces could directly influence the battle in Central Europe by attacking the Western TVD flank. Admiral Watkins states that "to apply our immense strike capability, we must move carriers into positions where...they can bring their added strength to bear" on the Central Front.(6) In less than a day, naval forces could move from dispersed locations in the Norwegian Sea, into the North Sea. Movement into the North Sea depends on several considerations. First, the commitment of naval forces against the flank should not detract from SLOC protection. The war could be lost if the SLOCs to the European Continent were cut. Second, naval officers must recognize the difficulty of gaining air superiority in the North Sea area due to Soviet land based air. Third, naval forces operating close to the coast are vulnerable to land based surface to surface missiles. Finally, while operating in enclosed areas such as the

Baltic Sea, naval forces are restricted and easily subjected to mines. Nevertheless, from a central position in the North Sea, this force would be operating on interior lines. The North Sea is not an obstacle to naval forces, and is thus a medium to maneuver against the enemy. A number of locations are threatened by these forces since their lines of operation can extend to threaten numerous locations inland. From their central position these forces threaten the Netherlands. Germany, Denmark and southern Norway. All these areas are within less than a day's movement. Amphibious forces and naval firepower could concentrate their efforts in time and space to any number of these possible objectives quicker than the enemy could respond.

A maneuver to a central position in the North Sea, produces other possibilities. If a crucial situation develops in the Norwegian Sea, carriers can quickly move to assist.(7) From a central position in the North Sea, Iceland is 800 nm or two days travel. Airpower could be projected out to assist within a day. In the North Sea, ships can tie into the air defense network of the UK or the continent. Finally, ships in the North Sea may be less exposed to Soviet submarines and air threats since Kola based BACKFIRES would be beyond fighter escorts.(8)

Although many locations are accessible from a central position, the beaches and landing sites best suited for an amphibious operation are in the northern tip of Denmark, north of Alborg and the Linfjorden water barrier.(9) Northern Denmark may be a decisive point.

Once a foothold is established in Denmark, several possibilities exist. The momentum of the attack could be carried down the peninsula into northern Germany. Follow-on forces would have access to the sea all along the Jutland Peninsula and thus could be sustained by the Navy.(10) By advancing to Hamburg, a Marine Expeditionary Force or other follow-on force could threaten the enemy's lines of communication across the North German Plain. P.X. Kelley states that when NATO's forces are containing the assault in Central Europe, every effort will be made to employ amphibious forces at the decisive point and time where the Soviets are most vulnerable.(11) Hamburg, less than fifty miles from the sea, may be another decisive point.

Once northern Denmark is secured, another possibility is to seize the Baltic Approaches and threaten positions along the Baltic Sea flank. Amphibious forces supported by naval firepower will play a prominent role. Both Admiral Watkins and General Kelley foresee this as a viable possibility. Admiral Watkins optimistically states that carrier battle groups can use their full weight to help roll up the Soviet flanks and carry the war to the Soviets.(12) General Kelley emphasizes that amphibious operations in the Baltic Sea will "exert pressure on the Soviet Rimland, which might in turn direct Soviet energies from the main effort on the Central Front."(13)

With his LOCs supporting the main effort interdicted, the enemy may be forced to react. The operational maneuver force must be large enough to threaten the enemy and force him to divert combat power or other assets. Such an operation could involve the

positioning of the fleet along the flank, or include an amphibious assault with follow-on army or allied amphibious forces. Operational maneuver along the flank works in combination with other land force activities. Hence once the enemy reacts, AFCENT ground forces have the opportunity to engage in battle under more favorable terms and counterattack an enemy looking in two directions.

Naval aircraft, supplementing Air Force assets or acting independently could support the operational maneuver by isolating the objective area, interdicting reinforcements and disrupting command and control. Assuming both sides lose 50% of their air in the initial weeks, AFCENT and the Warsaw Pact would have about 1,100 and 1,755 aircraft respectively.(14) The addition of two hundred aircraft suddenly appearing from mobile airbases can help reduce the difference. Naval attack aircraft could surge during the enemy's operational pause or during the repositioning of his second strategic front aircraft.

Complementing and increasing the intensity of the firepower would be the TOMAHAWK cruise missile. The conventional cruise missile fired from mobile platforms in the North Sea could reach well into the theater of operations. Bridges, railyards, POL facilities, power stations, airfields and command and control targets would be within the missile's 700 nm range.

With naval forces in the North Sea it is possible to target all the major bridges over the Elbe, Oder-Neisse and Vistulla Rivers.(15) From 100 nm off the Danish coast, the Elbe River is less than 300 nm, the Oder is about 400 nm, and the Vistulla is about 650

nm. Cruise missiles can easily target the East German and Polish border, as well as the Soviet and Polish border. These assets can strike the full depth of the theater of operations.

Carrier based aircraft, when synchronized with the TOMAHAWK and other firepower systems, offer flexible firepower options. The effects of this tremendous strike capability need to support the operational plan. These theater fires could support the maneuver of the naval force along the flank, the maneuver of the amphibious landing force, or the maneuver of any land force. Operational fires could: isolate the objective area; disrupt the enemy's command and control; slow reinforcements by targeting key bridges and rail transload sites; and defeat his warfighting capacity. For example, the TOMAHAWK could attack airfields to put them temporarily out of action and force the diversion of aircraft already airborne to other bases.(16) Additionally the TOMAHAWK could soften enemy air defenses. Then naval air would follow to interdict and attack aircraft on the ground. These intensive fires would be sequenced to have an effect at the decisive time and place, supporting the operational maneuver.

VIII- CONCLUSION

At the operational level of war, naval forces can directly influence the ground war in the Central Region. Carrier battle group task forces and amphibious forces can be employed as operational maneuver forces. Carrier based naval aircraft, complemented by TOMAHAWK cruise missiles and naval gunfire, can provide operational fires.

An analysis of the theoretical basis of operational maneuver and fires determined that these terms are linked to initiative, agility, synchronization and depth. Through operational maneuver, a force achieves relative strength over an enemy weakness, such as his vulnerable positions along a flank in depth. By concentration, or convergence of effort in time and space, the operational maneuver force gains a positional advantage in time over the surprised enemy. With speed and surprise, an operational maneuver generates tempo and sets the terms of battle. Linked to operational maneuver is operational fires. The desired effects of operational fires need to be synchronized with the maneuver. In essence, the effects of intensive fires in depth facilitate a force's freedom of maneuver. Subsequently, this allows the force to attain a positional advantage over the enemy. This is accomplished by isolating, disrupting, confusing and degrading the enemy prior to battle. Initiative, agility, synchronization and depth are the threads found through these concepts.

Initiative, agility and depth are all embedded in aircraft carrier battle group and amphibious operations. Naval forces seek

the initiative by maneuvering in depth, positioning to gain relative superiority and timing. Time and distance considerations allow naval forces to concentrate their efforts from over the horizon. With surprise and agility, the naval force gains positional advantage in time and space over the enemy.

Depth and synchronization are inherent to naval firepower projections. The synergistic effect of intensive air attacks launched from mobile bases and complemented by cruise missiles and naval gunfire, would effectively confuse, isolate and degrade the enemy. The combined effects of intensive strikes in depth could be sequenced to have an impact at the decisive time and place. These conditions could allow for operational maneuver to a position of advantage over the enemy.

Historically, it was instructive to look at CHROMITE as an example of how naval forces were employed, in combination with ground forces, at the operational level of war. At Inchon, naval forces were used as an operational maneuver force and provided operational fires. The maneuver to Inchon by sea was the precursor to maneuver inland. Additionally, Inchon is an example of the Army and Navy fighting as a team against a common enemy, using all their resources to ensure success. For the student of military history, the Falklands and Vietnam also offer examples of joint warfighting.

Next, the paper examined how naval assets can contribute to the land campaign in NATO's Central Region. This proposal suggests using naval forces to attack vulnerable positions along the Western TVD flank. Such an operation would include carrier battle group

task forces and amphibious forces converging their efforts from over the horizon at the decisive time and place. Operational fires would primarily be provided by naval aircraft. The TOMAHAWK cruise missile and naval gunfire would complement the air attacks.

The intent of this proposal was not to find fault with the Maritime Strategy. Maritime Strategy is a flexible warfighting concept based on forward positioning, seizing the initiative, sea control and power projection. However, in addition to operations in the North Atlantic and Norweigian Sea against the Soviet fleet, we need to pursue other naval force employment options. It is necessary for planners to understand and articulate how to best use our maritime strength and superiority to defeat a continental power like the Soviet Union. We determined that naval power projection can be applied effectively toward land operations.

The implications are significant. Joint warfighting requires the services to cooperate as a team. We must subdue the tendency toward parochial views. Additionally, we must be open minded and overcome deep seated biases. In the joint arena, the Navy has strong preferences for participating "in support of" rather than as part of a fully integrated team. However, joint warfighting is more than a matter of helping the Army if and when the naval forces are available.

Failure to understand and articulate joint operational warfighting concepts may prove to be disastrous in future conflicts. Furthermore, by not combining and fully integrating the warfighting capabilities of all the services, success in the Central Region may

be impossible. Direct naval employment against vulnerable positions along the flank of the Western TVD's main effort would result in a significant threat. Such employment options involve risk taking, however, these actions would provide leverage during peace negotiations. Hence, the employment of naval forces would allow the termination of the war on acceptable terms.

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