EVALUATING THE SEA BASING CONCEPT: IS THIS FUTURE CAPABILITY A CRITICAL STRENGTH, WEAKNESS, OR VULNERABILITY FOR THE THEATER COMMANDER?

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Sea basing of joint forces provides numerous advantages to the theater and joint force commander, such as sovereign security, immediate employability, and operational independence, while having very few weaknesses. However, sea basing of joint forces creates a friendly center of gravity and a critical vulnerability. Thus Sea Basing and Sea Shield must be developed and employed concurrently in order to ensure success during future conflicts.

Sea Basing, Sea Shield, Transformation, Operational Protection, Sea Power, Critical Vulnerabilities,
Evaluating the Sea Basing Concept: Is this future capability a critical strength, weakness, or vulnerability for the Theater Commander?

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The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract of

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INTRODUCTION

In the future, we will use the extended reach of naval weapons and sensors to provide unprecedented power, projection, and freedom to joint campaigns. We will do this by exploiting the largest maneuver area on the face of the earth: the sea.¹

Admiral Vern Clark
Chief of Naval Operations

For more than two centuries America has relied upon both expeditionary and mainland based forces to win wars. Large air and land forces have operated in concert with naval striking and expeditionary forces in order to provide national security from enemies with similar military structures. However, the end of the Cold War produced new threats to national security as our new enemies chose not to field large armed forces, like those of the Soviet Union, but decided in favor of smaller, asymmetric groups, as demonstrated by Al Qaeda and their attack on the United States on September 11, 2001. Simultaneously, America has also been forced to reassess its historical practice of basing forward deployed forces in friendly countries during peacetime and conflict, as evidenced by Turkey’s refusal to permit American forces to use their country as a staging area for Operation Iraqi Freedom. Consequently, American forces must transform into lighter, more agile expeditionary forces that will be primarily based at sea, in order to defeat future threats quickly and decisively abroad. However, will basing joint force commanders (JFC), JFC headquarters, component commanders, and the preponderance of joint forces at sea during conflict create critical vulnerabilities for theater combatant commanders?

Conceptually, Sea Basing will provide theater commanders with advantages of sovereign security, immediate employability, and operational independence while having very few weaknesses. However, operational protection of a sea based JFC's headquarters, component commanders, and joint forces will be the most crucial element of future mission success. What are the weaknesses and vulnerabilities of sea basing joint forces? Are they significant? This study evaluates the overall effectiveness and utility of Sea Basing to the Combatant Commander by critically analyzing the strengths, weaknesses, and vulnerabilities of sea basing joint theater forces.

**Doctrinal Evolution of Sea Basing**

Almost a decade prior to the terrorists attacks in September 2001 and Operation Enduring Freedom, the Department of the Navy set in motion the transformation of their doctrines in preparation for 21st century conflicts. Specifically, the landmark white paper, *From the Sea*, was published in 1992 which shifted naval focus from open ocean battles to littoral warfare.\(^2\) *Forward...From the Sea* was published in 1994 as an updated version of the initial document, once again focusing on expeditionary warfare.\(^3\) In 1997, the Chairman, Joint Chiefs of Staff published Joint Vision 2010, which was updated to Joint Vision 2020 three years later. The operational concepts of these visions included: dominant maneuver, precision engagement, focused logistics, and full dimensional protection.\(^4\) This study will focus on the full dimensional protection of the sea based joint force commander and joint forces.

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\(^3\) Department of the Navy, *Forward...From the Sea*, (Washington D.C.: 1994).
Although Joint Vision 2020 does not specifically address the concept of Sea Basing, it provides the foundation for the Navy's Sea Power 21 Vision, which seeks to expand current naval capabilities in order to better support all future joint operations. Sea Power 21 is composed of Sea Basing, Sea Shield, and Sea Strike Concepts, which are united through ForceNet. Although these future capabilities combine to make Sea Power 21 a key component to the successful transformation of American forces, this study will focus primarily on the Sea Basing Concept, with numerous references to Sea Shield. The primary question is: can we adequately protect theater assets staged at sea?

BACKGROUND

The Requirement for Sea Shield

*Full dimensional protection is the ability of the joint force to protect its personnel and other assets required to decisively execute assigned tasks. Full dimensional protection is achieved through the tailored selection and application of multilayered active and passive measures, within the domains of air, land, sea, space, and information across the range of military operations with an acceptable level of risk.*

*Joint Vision 2020*

Although Sea Basing and Sea Shield are cornerstones of the Navy's Sea Power 21 Vision and crucial to the successful execution of Joint Vision 2020, the concepts are not new. Joint force commanders and their forces have enjoyed the operational flexibility of sea basing for centuries, and protecting forces at sea has always been an issue. Arguably, the Navy's finest, and perhaps most embarrassing, moment of joint operations occurred during World War II in the execution of the Pacific Islands Campaign. Vice Admiral Thomas Kinkaid served as Commander Allied Naval

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Forces, while directly reporting to Commander in Chief of Southwest Pacific Forces, General Douglas MacArthur. Admiral William Halsey, Commander Western Pacific Task Forces, supported the campaign with Third Fleet assets while reporting to Admiral Chester Nimitz located in Pearl Harbor. During the Battle of Leyte Gulf, Admiral Halsey decided to use all of his fleet to chase the Japanese Northern Fleet, instead of maintaining a blocking position to the north in support of the joint amphibious forces while troops waited to land. His questionable judgment weakened the defense of the sea based joint forces and placed the success of the entire campaign at risk. Fortunately, Admiral Kinkaid's maritime operational genius and Japanese operational mistakes proved to be the keys to victory. As a result, sea based forces landed and expansion of the Japanese Empire was halted. World War II displayed sea basing at its height as thousands of ships were deployed in combatant, troop transport, and logistic roles. More importantly, the Battle of Leyte Gulf proved the need for adequate protection of sea based forces. Admiral Halsey's poor tactical decision could have had major operational, strategic, and historic impact.

However, like most lessons learned from WWII, lessons regarding the protection of sea based assets were primarily written in blood. German submarines took heavy tolls on alliance shipping in the Atlantic and Japanese aircraft did similar damage in the Pacific, mostly during a surprise attack at Pearl Harbor. The United States countered those losses by building more ships. Although the alliance improved in all aspects of maritime operational protection throughout the course of the war, the sheer

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power of our industrialized economy made the most significant difference in our maritime dominance during WWII.

**Modern Threats**

WWII type losses are unlikely in today's society due to significant technological improvements in shipboard sensors and defensive weapons. However, offensive weapons still maintain a decisive advantage. Several isolated engagements during the latter part of the 20th century indicate that sea based assets remain highly vulnerable to a wide range of threats. Specifically, during the Falklands War in 1982, a British submarine attacked and sunk the Argentinean Cruiser *General Belgrano*. During the same war, Argentina retaliated by sinking *HMS Sheffield* with an air launched Exocet missile. In 1987, an Exocet launched from an Iraqi fighter was successful against *USS Stark* while operating in the Persian Gulf. Additionally, *USS Samuel B. Roberts, USS Princeton* and *USS Tripoli* struck mines while also operating in the Persian Gulf.\(^8\) In October 2000, *USS Cole* was attacked by a suicide bomber in a rubber raft loaded with explosives in Yemen. Although it could be argued that these vessels were not high value units, such as command and control platforms or replenishment ships, the wide variety of successful attack methods reiterate the vulnerability of sea based assets in the littorals.

As demonstrated throughout history, operational protection of sea based assets is complicated and is crucial to victory in a maritime environment. Sea Shield is designed to provide layered defense to protect the homeland, sustain access to contested littorals, and project a defensive umbrella over coalition partners and joint

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forces ashore in distant theaters. It achieves these goals by exploiting global sea
control to defeat area denial threats including aircraft, missiles, littoral surface
combatants, mines, and submarines.9 If Sea Shield is implemented to the maximum
extent of its envisioned capabilities and enemy weapons and tactics do not evolve,
then the concerns of this study are unfounded. However, that assumption is
unrealistic. In spite of the significant capabilities of the Sea Shield Concept, some
threats remain superior to our present and future defenses. For example, the Russian
SS-N-22 Sunburn is a Mach 2-plus sea skimmer with a quirky (and at present
incompletely known) maneuver in its terminal phase that can probably penetrate any
existing defense system, hard or soft kill, especially when launched in salvos.10 The
Exocet also remains a popular and formidable opponent for any surface vessel, as
does mine warfare.

Additionally, enemy tactics will continue to evolve, as demonstrated in Yemen.
Proliferation of conventional and nonconventional weapons, as well as the use of
asymmetric tactics will significantly influence theater operational protection at sea.
Fast Patrol Boats, jet skis, suicide swimmers, low-slow-flying aircraft, diesel
submarines, mines, antiship missiles, and weapons of mass destruction (WMD) are all
highly effective means of deterring or destroying numerically superior forces in the
littoral environment. Can we afford to concentrate our forces at sea without proven
protection?

**ANALYSIS OF SEA BASING**

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10 Ya'ari, p.12.
The 21st century will witness the advent of unique and powerful capabilities delivered by global sea based forces. In the decades ahead, the seas will comprise the most independent and secure maneuver space for joint military forces. Weapons, sensors, and communications systems with revolutionary reach and precision will integrate maritime forces into a unified battle space extending across sea, land, and cyberspace providing invaluable strategic and operational advantage from the vast international domain of the world's oceans.11

Vice Admiral W. Charles Moore, Jr.
Deputy Chief of Naval Operations
For Fleet Readiness and Logistics

Sea Basing, when combined with Sea Shield and Sea Strike, will provide a near total package for the Combatant Commander. However, the scope of this study is limited to evaluating the primary strengths, weaknesses, vulnerabilities. Strengths of Sea Basing include the capabilities of providing sovereign and secure bases of operations, enhanced afloat positioning of joint assets, power projection, integrated joint logistics, and accelerated deployment and employment timelines. Weaknesses and vulnerabilities will focus on operational protection of Sea Based joint forces, and the impact of failure.

**Strengths**

Sea Basing is designed to provide a sovereign and secure environment to theater commanders, JF commanders, and their forces, that enhances operational command and control. Although sovereignty and security are the two most significant elements of Sea Basing for a JFC, global connectivity will also be a key element to successful theater operations of a commander. Future command and control systems must be able to communicate and to provide shared real time data across all forces, producing a common operating picture for tactical, theater, and national leaders, as required. Collaborative

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11 Moore and Hanlon, p 80.
planning systems, including video teleconferencing, will accelerate the speed and accuracy of assessment, decision, and action at every level of command.¹²

Positioning of joint forces afloat will also provide the JFC with the ability to expand the battlespace beyond enemy reach, moving critical command and control, fire support, logistics, and other assets to the most mobile and secure operational area - the sea.¹³ Sea Basing enhances maneuverability and mobility and will provide an asymmetric advantage over the enemy by taking advantage of the sea. Additionally, the element of surprise may be gained by shifting forces quickly and quietly to any area of interest, without the usual requirements for diplomatic clearances in foreign countries.¹⁴

Sea Basing, Sea Strike, and Sea Shield are interwoven concepts that are key components to the success of future theater operations. Sea Basing enables Sea Strike which is the concentration of firepower and power projection, while Sea Shield protects the Sea Based Headquarters and all other forces in the joint operating area (JOA).

Integrated joint logistics, or focused logistics, is the fusion of logistics information and transportation technologies for rapid crisis response, deployment and sustainment, the ability to track and shift units, equipment and supplies even while enroute, and delivery of tailored logistics packages and sustainment directly to the warfighter. Focused logistics increases joint force responsiveness, while minimizing dependence on large shore bases. As demonstrated in every conflict in history, logistics is the lifeline of successful combat operations.

Sea Basing permits the rapid deployment and employment of joint forces to sovereign territory, regardless of the political climate. Forces will be brought into theater,

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¹² Ibid. 81.
¹³ Department of the Navy, p. 25.
sustained, and reconstituted, as required, without reliance on diplomatic clearances from host nations. Operational reach and responsiveness will increase significantly, providing another asymmetric advantage.

**Weaknesses**

The Sea Basing Concept has many advantages and very few weaknesses, however, the weaknesses are significant. Most importantly, the Sea Base, unified or dispersed, becomes a *friendly operational center of gravity* during pre-hostilities and throughout all phases of conflict. Center of gravity is defined as characteristics, capabilities, or sources of power from which a military derives its freedom of action, physical strength, or will to fight. Therefore, a sea based JFC headquarters, component commanders, and joint forces would certainly qualify as an operational center of gravity. Concentration of command and control, firepower, and logistics make the Sea Base a prime target for an enemy's preemptive strike, possibly while in transit or on station in the littorals.

Enemy targeting of the friendly center of gravity will also be simplified if command and control elements, logistics, and joint forces munitions are co-located. With friendly sea lines of communication and logistics flowing into one central location, enemy efforts would most likely be coordinated and focused on attacking the center of gravity, instead of smaller escort vessels. A well placed explosive device by a suicide swimmer, or submarine, may ignite a chain reaction that could destroy the majority of joint forces allotted to that particular conflict. How long would it take America to regenerate an entire Sea Based joint task force (JTF) if one were destroyed?

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14 Ibid.
Furthermore, Sea Basing will most likely be employed during Military Operations Other Than War (MOOTW), which historically has placed American forces in their most vulnerable positions, as evidenced by attacks on the USS Stark and USS Cole occurring during peacetime operations. If sea based joint forces were destroyed during peacetime, would America support jeopardizing thousands of additional soldiers, airmen, sailors, and marines in order to obtain a limited objective after such a catastrophic loss? Public opinion would immediately become a major political factor with such a significant loss of life.

Another significant weakness is our ability to conduct realistic joint experiments, exercises, and training. For example, from July 24 to August 15, Millennium Challenge 2002 was conducted, making it the military's largest war game experiment ever. In the course of the experiment, opposing forces destroyed 16 simulated Navy vessels with cruise missiles. The vessels included an aircraft carrier, an Aegis cruiser, and five amphibious ships. However, vessels were regenerated and minimal damage assessed in spite of successful enemy attacks. The military's commitment to realistic training against asymmetric threats must improve in order to adequately prepare our forces for future conflicts.

Additionally, since the end of the Cold War, most of our concepts and technologies have been focused on defeating rogue state capabilities and non state forces. Significant conventional threats still exist and have been proliferated to countries that may chose to use those weapons in unconventional ways. Severe damage or destruction of sea based forces could result from a coordinated asymmetric attack using conventional methods,

such as mines, while simultaneously employing antiship missiles or torpedoes. Although America's current ability to counter asymmetric threats is a work in progress, it can be argued that those threats will be mitigated by Sea Shield. However, Sea Basing capabilities will most likely become operational well before Sea Shield is fully operational.

**Vulnerabilities**

*Operations in the littorals and narrow seas* place surface vessels at high risk. In order for sea bases to arrive in theater, or the joint operations area (JOA), numerous choke points and narrow seas may have to be navigated. Additionally, when on station, sea bases will be required to operate in the littorals. Defense of surface vessels is extremely difficult under normal conditions, however, it is most difficult in the littorals. Navigational hazards, commercial aircraft, and maritime traffic inadvertently complicate the battlespace in a high threat environment. With limited maneuverability in the littorals, sea based forces become a large target, that can be attacked with a wide variety of weapons. The spectrum ranges from mines to anti-ship missiles to tactical weapons of mass destruction (WMD) in the hands of rogue states, such as North Korea, or obtained by terrorists organizations. Although Sea Shield's capabilities are designed to protect joint forces against air, surface, and subsurface threats, the operational factors of space, force, and time are severely compressed when sea bases transit choke points or operate near land, making them highly vulnerable.

Concentration of command and control functions may have the unintended affect of *limiting redundancy*. For example, if the JFC and component commanders are sea based, who will assume command if the sea based headquarters is destroyed during force
build up or conflict? How will ground forces be supported if the sea based logistics hub is destroyed? How long would it take the Combatant Commander to regenerate combat power if the sea base is heavily damaged or destroyed? How long will it take to produce another sea base and the associated forces? Although the nominal time of construction for an aircraft carrier is approximately 5 years, it could be argued that the Sea Basing Concept assumes that multiple sea bases will be forward deployed for activation by the National Command Authority as necessary.

Currently, the Navy provides expeditionary and strike forces while the Army provides a concentrated land force, and the Air Force provides air power. The theater commander usually has various courses of action from which to choose. Flowing joint forces into the JOA is conducted by various means, such as air, ground, and sea. However, sea basing all joint forces reduces the number of avenues of approach as well as combat power for the JFC.

Additionally, Sea Basing requires lighter, more expeditionary joint forces. In spite of the ongoing transformation of the services, space remains limited on vessels at sea and weight is a primary concern for stability. Therefore, it can be deduced that lighter forces require lighter weapons which equates to reduced combat power. Although it can be argued that today's precision weapons may reduce the need for traditional firepower in the form of tanks and artillery, joint doctrine and training would have to be critically analyzed and altered in order to ensure optimum deployment and employment of joint forces from a sea base.

RECOMMENDATIONS
The United States must maintain and foster *diplomatic* relationships. War is an extension of politics, thus positioning and employment of military forces should always be the final option. Due to America's global dominance and technological superiority, America must proceed cautiously in order not to outgrow alliances, thus inadvertently isolating ourselves from other world powers. Diplomacy must keep pace with military superiority. Regional stability can best be maintained by regional powers and we must always be prepared to facilitate stability, however, overwhelming force is not always the answer. Additionally, solid diplomatic relationships will help to ensure forward basing is available, if required, for major operations.

Sea Shield capabilities must receive DoD's top priority in testing, development, and acquisitions. Although the commercial applications of Sea Basing can be quickly converted to military capabilities, Sea Shield technologies are uniquely military, thus requiring longer test and development times. For example, Sea Shield capabilities, such as Theater Air and Missile Defense, Littoral Sea Control, Anti-Submarine Warfare, and mine countermeasures currently have military roots, however, they each need to be fully developed and integrated in order to maximize their collective abilities. It could be argued that Sea Shield's anticipated capabilities will mitigate all air, surface, subsurface, and mine threats, however, with the high level of stakes involved, these future technologies must be thoroughly tested prior to employment. Sea Basing requires maximum defensibility if it is to succeed.

Establish doctrine that is consistent with the principles of war. Although the Sea Basing Concept has been employed successfully for many years in various forms, joint doctrine must be fully developed in this area in order to assist joint force operations.
Additionally, the employment of Sea Basing must not limit the ability of the JFC's ability to conduct decisive operations. Decisions to employ various joint force elements should be based on mission, assets available, and the political climate. The JFC should retain as much operational flexibility as possible in order to optimize mission accomplishment.

Joint exercises must be demanding and realistic. Experimentations must include the possibility of battle damage, inclement weather, enemy pre-emption, and other scenarios that would force the JFC to adapt. The tremendous capabilities of Sea Basing will not be fully realized until we apply realistic enemy tactics and test all of the strengths and weaknesses of the Sea Basing and Sea Shield Concepts.

Finally, Sea Basing should be developed as a naval expeditionary capability instead of a fully joint requirement until Sea Shield technologies become operational. The JTF Commander must retain operational flexibility of joint forces without jeopardizing operational protection. However, Sea Basing may be used in a limited capacity as joint force enabler that would be ideal for benign littoral situations such as operating off the coast of Somalia or Haiti. Conversely, employment of a joint Sea Base during a hypothetical conflict with North Korea would be highly risky. North Korea has the world's largest submarine force, a large special operations force, antiship missiles, and WMD capabilities. Currently, most of America's forces assigned to oppose North Korea are located in South Korea, which will be used in tandem with sea based forces, serving as deterrence to hostile enemy action. Thus, locating the preponderance of joint forces at sea would establish a center of gravity that may be vulnerable.

DoD is significantly close to evaluating and employing various versions of sea bases, however, much of Sea Shield's technologies are still under development. Joint
Forces Command is preparing to experiment with various types of existing technologies in an effort to solidify the Sea Basing vision, and the Department of the Navy is in the process of drafting a Sea Basing Concept of Operations. However, the United States cannot afford to concentrate joint forces on a Sea Base without Sea Shield being in place and operational. Sea Basing can be employed as a joint capability once Sea Shield is operational, which will reduce operational risk for the Combatant Commander.

CONCLUSION

Sea basing is transformational but it is not a panacea. It will remain an operational level capability that relies on strategic basing support of overseas friends and allies outside the joint operations area. We must continue to develop diplomatic relationships in addition to developing sea based assets. Sea basing may provide numerous advantages and critical strengths, however, it does not provide all of the answers. Additionally, our enemies will continue to improve their abilities to counter our technological advances.  

Vice Admiral Charles Moore, Jr.
Deputy Chief of Naval Operations
For Fleet Readiness and Logistics

This study clearly demonstrates the advantages and disadvantages of Sea Basing for the Combatant Commander. Additionally, this study also reflects the worst case scenario of deploying Sea Basing on a large scale without the benefit of Sea Shield. However, the sovereignty of Sea Basing cannot be argued. The large conventional enemy forces of the 20th century have temporarily been replaced by smaller, asymmetric cells, and we must retain the ability to rapidly deploy expeditionary forces without complete dependency on host nations. Sea Basing will provide the first step to assured access into any JOA, regardless of the political climate.

However, there is no single best solution for resolving conflict and fighting wars, and Sea Basing, as well as Sea Shield, will have to continue evolving. Our enemies of the
future are constantly adapting to our technological superiority and may asymmetrically augment conventional forces with unconventional methods, much like the Feyedeen forces used during Operation Iraqi Freedom. Regardless of the threat, Combatant Commanders must be able to protect theater forces and quickly respond with decisive precision in order to maintain dominance throughout the 21st century. Combined, joint land, air, and sea based forces will continue to provide operational primacy. However, sea basing of all theater forces will create critical vulnerabilities for theater commanders in future conflicts. We cannot afford to believe our own press clippings and must continue to critically analyze past and present successes, as well as failures, in addition to realistically evaluating wargames and exercises in order to defeat future threats.

Sea Basing presents numerous advantages for the Combatant Commander, and provides a highly valuable theater asset. However, the concept's critical weaknesses and vulnerabilities are significant. We cannot afford to use Operations Enduring Freedom and Iraqi Freedom as the only models for Sea Basing. We must closely examine the numerous maritime failures, and near-failures, experienced while trying to protect sea based units. The Battle of Leyte Gulf proved that the most important aspect of Sea Basing is Sea Shield. In other words, if the Japanese were successful in their attack of the amphibious forces, the outcome of WWII could have been drastically different.

16 Moore and Hanlon, p.87.