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14. ABSTRACT

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Will The Sea Power 21 Vision Support Future Joint Warfighting?

By

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Lieutenant, United States Navy

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

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

This paper analyzes whether the United States Navy's vision of *Sea Power 21* can support the *Major Combat Operations Joint Operating Concept* (MCO JOC). The analysis focuses on whether *Sea Power 21* and the pillars thereof (*ForceNet*, *Sea Strike*, *Sea Shield*, and *Sea Basing*) support the specified tasks of the MCO JOC Functional Area Capabilities to include *Command and Control Capabilities, Battlespace Awareness Capabilities, Force Application Capabilities, Focused Logistics Capabilities*, and *Protection Capabilities*. The analysis concludes that *Sea Power 21* and the supporting pillars lack the doctrinal backing to support the MCO JOC. Recommendations include crafting *Sea Power 21* as a joint endeavor as well as developing coordinating *Sea Power 21* doctrine to support future joint warfighting.

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Introduction

As the United States military transforms and reinvents itself over the next fifteen to twenty years one thing that will remain unchanged is the need to provide the joint force commander (JFC) those forces that are joint and prepared to win decisively.

Sea Power 21,[1] the United States Navy's plan and vision of a transformed maritime fighting force, claims it will provide the JFC with those joint maritime forces. In much the same way that *Sea Power 21* has charged the Navy to transform, a new concept has charged future JFCs with how they might likely fight their forces in future conflicts. This concept, drafted by the U.S. Joint Forces Command, is known as the *Major Combat Operations Joint Operating Concept* (MCO JOC).[2, 3, 4]

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[1] The entire *Sea Power 21* series is available at <http://www.usni.org/Proceedings/Articles02/proCNO10.htm>.

[2] This concept projects what Major Combat Operations may be like in the future and is based on a series of assumptions. According to the MCO JOC: "*This concept is focused on the time horizon just beyond the Future Years Defense Program (FYDP), roughly 2015 and rests upon the following assumptions:*

> *Assumption 1: War continues to be an important component of confrontation strategies and remains a fundamentally human endeavor. Our approach to warfighting in the information age must strike a balance between its technological and human elements.*
>
> *Assumption 2: While the nature of war remains relatively fixed, the conduct of war has changed, is changing and will continue to change. Adversaries will include both state and non-state actors, including transnational organizations, terrorist groups, criminal elements and economic entities. We will often face enemies who operate outside the rule of law and are difficult to distinguish from noncombatants. These new adversary sets require us to develop new approaches to deterrence measures, warfighting and winning confrontations.*
>
> *Assumption 3: Potential regional adversaries in the 2015 timeframe will be well-equipped, well-led, motivated to win, highly adaptive, with global reach in selected capabilities, and possess the will to employ those capabilities in opposition to or in a manner threatening to U.S. national security. They will also likely possess weapons of mass destruction and significant anti-access capabilities. They will observe our warfighting capabilities and methods and adjust their strategies and tactics intelligently in an attempt to counter our advantages. These adversaries will seek to exploit technological breakthroughs in novel ways.*
>
> *Assumption 4: Technological advances will continue at least at the current pace. Commercially available dual-use technology will continue to proliferate, extending some near-peer like capabilities in selected niches to even the least sophisticated and minimally funded adversaries.*

Listed in the MCO JOC are five Functional Area Capabilities (FACs) titled: *Command and Control Capabilities, Battlespace Awareness Capabilities, Force Application Capabilities, Focused Logistics Capabilities,* and *Protection Capabilities* and are listed in Appendix A with their subordinate tasks. Each FAC, whose overarching themes I will discuss later, is broken into subordinate tasks; it is these tasks, according to the MCO JOC, that a JFC is to pursue or accomplish during the course of major combat operations against a regional nation state.

The challenge for the U.S. Navy, and specifically to *Sea Power 21*, is to fully support, equip and operate its forces in the context of the MCO JOC FACs and, more importantly, the subordinate and specified tasks.

My thesis is the *vision* of *Sea Power 21*, as a construct of joint warfighting conducted at the operational level of war, will not support all five FACs and their subordinate tasks.[5]

> *Assumption 5: Service competencies remain the foundation of joint capabilities. The Services provide the cultural identities, domain expertise and core warfighting resources that are vital to implementing this concept.*
>
> *Assumption 6: The concept outlines three cases of major combat operations. Of the two likely cases, Case One, the high-end regional competitor, has the greatest impact on our total capability requirements and is accordingly the focus of Version 1.0. Case Two, major irregular combat is the other likely case in the 2015 time frame and will be the next case developed in future versions of the concept. Case Three, the peer competitor, while the most dangerous, is not anticipated within the time frame of focus and will be the last of the three developed*." U.S. Joint Forces Command, *Major Combat Operations Joint Operating Concept*, September 2004, Suffolk, VA. p. vi. (Hereafter MCO JOC.)

[3] The MCO JOC stresses an endstate as its theme, and according to the concept: "*The central theme of the MCO JOC is to achieve decisive conclusions to combat and set the conditions for decisive conclusion of the confrontation; use a joint, interdependent force that swiftly applies overmatching power simultaneously and sequentially, in a set of contiguous and noncontiguous operations; employ joint power at all points of action necessary; and create in the mind of our enemy an asynchronous perception of our actions—all to compel the enemy to accede to our will*." MCO JOC, pp. iii-iv.

[4] The Joint Operating Concepts, including the MCO JOC, are available at <http://www.dtic.mil/jointvision/index.html>.

[5] My analysis focuses on the *vision* the United States Navy has for future joint warfighting. Throughout the paper I quote *Sea Power 21* initiatives including the procurement of new assets (weapons systems, sensors, and platforms) and the pursuit and employment of operational capabilities and concepts. I am not suggesting in this

The reasoning for my thesis is as follows: (1) A solution to the Department of Defense's future joint warfighting vision is largely based on Joint Operating Concepts (JOCs) (of which is the MCO JOC), (2) the *Naval Transformation Roadmap 2003*, under which is *Sea Power 21*, mainly exists to support and enable these JOCs,[6] and (3) *Sea Power 21*, as a list of platforms, weapons, and systems – loosely banded together under the same title – is inadequately crafted to support the MCO JOC.

The future joint warfighting bar has been set and *Sea Power 21* must meet or exceed the challenges described in the MCO JOC.

I will present in this paper how the *Sea Power 21* vision, as a whole, cannot support the five FACs and their subordinate tasks. Under each FAC analyzed I list what "pillars"[7] or facets of *Sea Power 21* would likely support the task, according to *Sea Power 21*. Parenthetically, due to the sheer number of tasks outlined in the FACs, I can only devote my analysis to a few; due to the length limitation imposed on this paper there is simply not enough span for thorough analysis of each and every task outlined in the MCO JOC. Further

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paper that these assets, capabilities and concepts will deliver on the tasks I analyze. Rather, I am simply analyzing whether the vision the U.S. Navy has focused its efforts on sufficiently addresses the tasks of the Major Combat Operations Joint Operating Concept.

[6] The Department of the Navy (as well as the other armed services) was directed by the Secretary of Defense's *Transformation Planning Guidance* to produce an annual Transformation Roadmap. The *Naval Transformation Roadmap 2003* is the U.S. Navy's vision of a transformed naval force. In it is stated: "*The Naval Transformation Roadmap serves to identify the most significant of the enhanced naval capabilities we believe will be required by the nation, and captures many of the concrete steps we are taking to achieve them. It describes how naval forces will achieve the transformational warfighting capabilities needed to support the developing Joint Operating Concepts (JOCs) and the six critical operational goals described in the 2001 Quadrennial Defense Review (QDR).*" Department of the Navy, *Naval Transformation Roadmap 2003*, Washington, D.C. p. 1.

[7] *Sea Power 21* "pillars" are defined as *Sea Strike*, *Sea Shield*, and *Sea Basing*. *ForceNet* is the "glue" that binds together the three pillars. *Sea Power 21* will be implemented by the "Global Concept of Operations." Helping develop the three pillars are the "supporting triad of organizational processes: *Sea Trial*, *Sea Warrior*, and *Sea Enterprise*—initiatives that will align and accelerate the development of enhanced warfighting capabilities for the fleet." Admiral Vernon Clark, "Sea Power 21 – Projecting Decisive Joint Capabilities," United States Naval Institute *Proceedings*, October 2002.

examination of the remaining tasks as they relate to whether *Sea Power 21* will support them would need to be completed before a final conclusion could be made. Additionally, after studying each of the FAC tasks I am of the opinion that *Sea Power 21*, in its current vision, supports only a handful of them.[8] Finally, the MCO JOC and *Sea Power 21* visions are highly dynamic and subject to change due to budget constraints, leadership visions, etc. As such, this paper will only attempt to capture *Sea Power 21*'s *expected* support for the MCO JOC FAC tasks.

COMMAND AND CONTROL CAPABILITIES

The tasks of Command and Control Capabilities start at the strategic and operational level by stating a need to provide "clear objectives," "desired effects," and "commander's intent." They then concentrate at mainly the operational (and sometimes tactical) level by requiring the necessity for "centralized and decentralized decision making," providing "effective leadership," and fielding "systems."

ForceNet

> While the *ForceNet* vision appears that it would likely support the task of:
>
> "*Facilitate both centralized and decentralized decision-making as appropriate, exploiting decision support tools to make well-informed decisions faster than the opponent*"[9]

…through a host of *ForceNet* data networks and decision-aid tools such as Link 16, Cooperative Engagement Capability (CEC), the Joint Fires Network, Unmanned Aerial Vehicles (UAVs), highly sophisticated joint and national assets, and space-based systems, it does not answer how it will fuse these systems and information together to meet the above

[8] I am not selectively focusing my analysis to the tasks that would support my thesis.

[9] MOC JOC, p. 55.

task. While the *Sea Power 21* vision states: "*ForceNet is ultimately not about providing more information; it is about providing the right information at the proper time to aid decision making,*"[10] it does not clearly explain what it will do with that "right information" once it is collected. Unquestionably, *ForceNet* indicates the role computer-based technologies and web-based tools will have on the distribution of this information, but what is questionable is by what process *ForceNet* will do this. Although *ForceNet* lists as a "critical challenge" to its vision the need to create and employ both "powerful decision aids for force commanders" and "streamlined execution processes to swiftly translate decisions into coordinated actions," it does not list what these exactly are. *Sea Power 21* is not the only vision that is ambiguous about implementing *ForceNet*.

Consider the DOD Office of Transformation's recently published document *The Implementation of Network-Centric Warfare*. In it the following was stated concerning *ForceNet*:

> "[The ForceNet] *construct for moving data within the network backplane will facilitate greatly improved, shared battlespace awareness, rapid dissemination of the Joint Force Commander's evolving campaign plan/'intent,' and faster passing of information about the enemy from surveillance systems through controllers to ready forces with the right weapons for attacking key targets*."[11]

That is it. That is the implementation of *ForceNet* according to the Office of Transformation. In its own "implementation" document, the Office of Transformation also fails to mention exactly *how* *ForceNet* will move data within the "network backplane." While it describes *ForceNet* as "the architectural framework" to make the "theory" of Network Centric Warfare

[10] Vice Admiral Richard W. Mayo and Vice Admiral John Nathman, "ForceNet: Turning Information Into Power," United States Naval Institute *Proceedings*, February 2003.

[11] Department of Defense, Office of Force Transformation, *The Implementation of Network Centric Warfare*, January 2005, Washington, D.C. p. 54.

(NCW) and the "concept" of Network Centric Operations (NCO) a reality, it falls short in precisely describing *how* *ForceNet* will do this. It appears that this document suffers from what *ForceNet* suffers from – it will simply (or not so simply) link a host of systems together on the "network backplane" of *ForceNet* and call it NCW and NCO. (It is interesting to note that within *The Implementation of Network Centric Warfare* it lists NCW as *a theory* and NCO as *a concept*. Is it DOD policy to implement the *theory* or should it be implementing the *concept* like NCO?) All is not lost with *ForceNet* supporting some of the MCO JOC tasks though.

With its systems, *ForceNet* is, to a great extent, well positioned to:

> "*Maintain a robust, joint network that (1) avoids single points of failure, (2) enables graceful degradation, (3) is based on uniform standards at the data and information level to allow warfighters throughout the force to use applications without compromising interoperability, and (4) promotes the ability of commanders at all levels to decide and act with greater assurance and speed.*"[12]

The "systems" of *ForceNet* and the design and operation thereof seem to be the only way in which the joint force and *Sea Power 21* can accomplish this task. No theory or vision or doctrine is going to do it. This task is accomplished strictly by nuts, bolts and electrons.

ForceNet networks such as CEC and Link 16 already possess the capability of avoiding network failure in instances where one or more of its "nodes" were to drop off-line. While the result of such an instance would be considered a "graceful degradation," the integrity, connectivity and war-fighting ability of the remaining network would remain intact.

Also resident within these systems is the ability to display strategic, operational and tactical data in real-time allowing the JFC and his subordinates to decide and act with greater assurance and speed.

[12] MCO JOC, p. 55.

However, *ForceNet*, as a vision, does recognize that current networks and doctrine are not based on a uniform standard and do lack interoperability. *ForceNet* does this so much so that four of the five *ForceNet* "objectives" are aligned with developing, experimenting, testing, and ultimately fielding new operational processes and systems that are interoperable with joint, interagency, and coalition forces.

Sea Warrior

The next task challenges the joint force to:

> *"Provide effective leadership (based on selection, training, educations, and experience of leaders) in a combined, adaptive, collaborative environment."*[13]

Sea Power 21's *Sea Warrior* would appear to be the enabler that fulfills this task, however, the *Sea Warrior* concept is ill-prepared to meet this challenge. While *Sea Warrior* focuses on "growing individuals" from their enlistment/commissioning to the rank and assignment as master chiefs or flag officers utilizing a career-long training and education system that "gives them the tools they need to operate in an increasingly *demanding and dynamic environment*," [emphasis mine] this concept is too Navy-centric. Nowhere within the *Sea Warrior* construct does it address the need to deliver enlisted and officer warriors molded and trained under the term "joint." The closest *Sea Warrior* comes to doing this is describing that these leaders will operate in a "demanding and dynamic environment." A "demanding and dynamic environment," however, is not fresh or novel; the services have always sought after and required warriors who can operate under these conditions. But what would be fresh and novel, conceivably, is the vision of *Sea Warrior* devoting more attention to what the joint force expects of its leaders and implement explicitly within its personnel

[13] Ibid., p. 55.

policies the training and education that delivers those personnel who are robustly familiar with all things termed "joint."

This oversight, on the other hand, does not exclusively fall on the shoulders of *Sea Power 21*. As stated in this task it only asks for leaders who can work in and are trained in a "combined, adaptive, collaborative environment." Surely this task could expand its definition of what a "combined, adaptive, collaborative environment" exactly means. Perhaps, as an example, this task should lay out some concrete numbers stating what percentage of personnel on a certain JTF staff should be certified as being Joint Professional Military Education Phase I and/or II complete. Whether this requirement currently exists is moot – it needs to be stated as part of the MCO JOC task.

BATTLESPACE AWARENESS CAPABILITIES

The tasks listed under the Battlespace Awareness Capabilities principally concern the need to provide the joint force vast situational awareness of the battlespace through the use of broad ISR assets. They also task the joint force with being able to collaboratively assess and plan using the information these assets provide.

ForceNet

The *ForceNet* construct will struggle to meet the task of:

> "*Maintain persistent situational awareness and achieve shared understanding through a collaborative environment among joint, interagency, and multinational partners in order to know the full dimensions of the operational environment, our adversaries, others, and ourselves*."[14]

ForceNet, again, would likely answer this task solely by utilizing and fielding "systems." But *ForceNet* does not indicate how or by what doctrinal methods it will do it.

[14] Ibid., p. 56.

To be sure, *ForceNet* systems such as Joint Battle Management Command and Control[15] and the Global Information Grid,[16] will likely provide the *means* for what this task is asking for. What is not offered is the *ways*. Aside from stating that U.S. naval forces will one day use these systems, there is no guidance, no doctrine, and no vision concerning how or by what methods they will be employed. When *ForceNet* considers developing and deploying "next-generation systems and analytical processes" that provide unparalleled situational awareness, it had better consider a construct or doctrine that will guide their use. Currently, *ForceNet* is singularly answering a portion of the "how" question with systems. Many of the other answers to the same question remain unanswered.

Advocates of *ForceNet*'s vision would probably agree that *ForceNet* will also be able to meet the task of:

> *"Deploy a robust, pervasive, dynamically tailored, and high-fidelity intelligence, surveillance and reconnaissance (ISR) systems, to include human intelligence (HUMINT) and space platforms."*[17]

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[15] According to *ForceNet*, Joint Battle Management Command and Control (JBMC2) "consists of the processes, architectures, systems, standards, and command and control operational concepts employed by the Joint Force Commander. The Joint Force Commander executes joint operations by employing the entire array of JBMC2 capabilities during the planning, coordinating, directing, controlling, and assessing of joint force operations from interface with the strategic level through the tactical level. JBMC2 will provide an integrated, interoperable, and networked joint force that will : (1) ensure common shared situational awareness, (2) allow fused, precise and actionable intelligence, (3) support coherent distributed and dispersed operations, including forced entry into anti-access or area-denial environments, and (4) ensure decision superiority enabling more agile, more lethal, and survivable joint operations." ForceNet Joint Integration Brief. For JBMC2 see <http://forcenet.navy.mil/JointIntegration/jbmc2.htm.> or <http://www.jfcom.mil/about/fact_jbmc2.htm>

[16] DOD Directive Number 8100.1 defines the Global Information Grid as: "a Globally interconnected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information on demand to warfighters, policy makers, and support personnel. The GIG includes all owned and leased communications and computing systems and services, software (including applications), data, security services, and other associated services necessary to achieve Information Superiority. It also includes National Security Systems (NSS) as defined in section 5142 of the Clinger-Cohen Act of 1996. The GIG supports all DOD, National Security, and related Intelligence Community (IC) missions and functions (strategic, operational, tactical, and business) in war and in peace. The GIG provides capabilities from all operating locations (bases, posts, camps, stations, facilities, mobile platforms, and deployed sites). The GIG provides interfaces to coalition, allied, and non-DoD users and systems." For Global Information Grid see <http://www.dtic.mil/whs/directives/corres/pdf2/d81001p.pdf>.

[17] MCO JOC, p. 56.

While they would probably be of the same opinion that employing "sea-based" sensing capabilities such as ships, submarines, and aircraft, and in the future, unmanned vehicles and expeditionary sensor grids, will provide the capabilities to achieve this task, *ForceNet*, again, suffers from simply fielding new systems to solve a task or challenge. Complicating this matter, the task itself does not fully explain what these systems are intended to do. By simply listing a task that calls for the deployment of systems does not solve any of the challenges a JFC will face in the future; the JFC already faces enough challenges today with the current systems and "doctrine" governing their use. What the JTF commander needs is *the way* in which those assets will be used. Possibly, *ForceNet* as a whole should conceive what the joint force wants to do with these assets once they are deployed and develop the doctrine that explains how they are to do it.

FORCE APPLICATION CAPABILITIES

The tasks listed under the Force Application Capabilities are ones that deal with deploying forces and having those forces conduct "kinetic" operations. These tasks are the traditional warfighting tasks where joint forces actively engage the adversary through a host of warfighting options.

Sea Shield

Sea Shield experiences the same problem as *ForceNet* in that it solves joint warfighting tasks with systems. Judge the following tasks of Force Application and how *Sea Shield* will likely pursue them:

> "*Provide offensive capability to counter enemy anti-access systems including: Rapidly detecting, neutralizing or destroying mines at standoff ranges and in-stride.*"

> "*Using fixed and deployable detection and tracking sensors at strategic port approaches and chokepoints to complement persistent anti-submarine warfare*."[18]

Sea Shield's answer to these tasks would likely be the use of the "Advanced Deployable System," a host of "Unmanned Underwater Vehicles," "low-frequency active ship-mounted sonar," the "advanced low-frequency sonar for the MH-60R helicopter," and "new acoustic processors on nuclear submarines, and distributed sensors that make up the Expeditionary Sensor Grid" – all of which *Sea Shield* plans on employing at some time. Absent from these wonderful advances in military technology is the vision that synergizes their use and maximizes their capabilities. Perhaps if *Sea Shield* made the following doctrinal statement about joint warfighting:

> *One day Sea Shield shall be employed in a joint force collaborative environment where a partnered array of joint protection assets, "knowledge-enabled" by the Global Information Grid and ForceNet, exploiting the latest tactics, techniques, and procedures, and well-guided by mature commander's intent, will employ these integrated capabilities to impose a near-impenetrable aegis over the joint force.*

...this vision might then offer something useful to the JFC. Absent this, all a JFC might now see is simply a list of *Sea Shield* systems.

Proponents of *Sea Shield* would likely admit that the systems *Sea Shield* heralds – the Advanced Tactical Data Link, CEC, Link 16, the ballistic missile defense versions of the Standard missile, the E-2C Hawkeye's Radar Modernization Program, and the F/A-18E/F's Advanced Electronically Scanned Array Radar – would fulfill the joint force's task of:

> "*Rapidly defeating improved enemy air defense systems; countering enemy theater and tactical missiles; and countering enemy theater and tactical missiles with highly deployable systems that provide warning, intent, location, launch, and destruction (pre-launch, cruise and terminal phase, and over-the-horizon.*"[19]

[18] Ibid., pp. 56-57.

[19] Ibid., p. 57.

They would, however, be wrong. *Sea Shield*, in its entirety, merely identifies the future threats and the platforms, systems and weapons that will engage and defeat them. There is entirely nothing different when one compares the construct of *Sea Shield* and the construct the U.S. Navy operates under today albeit the elongated chronicle of emerging technologies. Nowhere within *Sea Shield* does it tell the reader *how* the future naval force will be combating threats with these new platforms, systems and weapons.

Sea Strike

The *Sea Strike* vision also suffers what *ForceNet* and *Sea Shield* suffer – the concept insufficiently answers the "how" questions with systems. The *Sea Strike* construct is mostly a catalog of current and future capabilities followed by a series of actions steps (not doctrine) intended to implement their use. Again, consider the following task:

> "*Provide multidimensional precision engagement, including close fire support by exploiting high-endurance manned and unmanned launch platforms which combine ISR and engagement capabilities, deep-reach fire support including sea-based and long-range aerospace components to support forcible-entry operations, lethal and nonlethal (nuclear and conventional) fires, fires capable to type-target discrimination, time-sensitive targeting, and in-flight re-targeting of smart weapons.*"[20]

Current *Sea Strike* assets – the Block IV variant of the Tactical Tomahawk capable of in-flight retargeting, the continual refinement of time-sensitive targeting, the use of precision munitions – and future capabilities – development of joint forcible-entry procedures, the Extended Range Guided Munition, the electromagnetic rail gun – all would seem to lend themselves to achieving this task. But they do not meet the goal of how to do it. Admirably, *Sea Strike* sheds some light on this lapse in coordinating doctrine by admittedly stating:

> *"The nature and scope of national security challenges and rapid insertion of new technologies demand that the Navy-Marine Corps team change the way it is*

[20] Ibid., pp. 57-58.

organized and deployed. Countering 21st-century threats requires a doctrine and force structure that can respond immediately with a wide array of capabilities."[21]

It appears that the *Sea Strike* vision modestly recognizes the void of not having the coordinating doctrine to implement these magnificent leaps in combat technology. Lastly, although it is never mentioned within *Sea Strike* (I presume that it is not intended to be), the use of the U.S. strategic submarine force can always fulfill the "nuclear fires" aspect of this task. Other than our ballistic missile submarine force, *Sea Strike* is just another list of platforms, systems and weapons.

Sea Basing

Up to this point I have been largely critical of *Sea Power 21* and the fact that this vision fails to answer the "how" question. *Sea Basing*, however, is altogether quite different from the other visions of *Sea Power 21*. This construct, in my opinion, clearly spells out the "how." It is the only *Sea Power 21* vision that clearly and unambiguously defines exactly what it plans to do and how it will support the joint force. Later, I will comment on the specifics of *Sea Basing* and why I consider this vision to presumably be the soundest vision of *Sea Power 21*.

According to *Sea Power 21*:

"Sea Basing is the core of Sea Power 21. It is about placing at sea—to a greater extent than ever before—capabilities critical to joint and coalition operational success: offensive and defensive firepower, maneuver forces, command and control, and logistics."[22]

This statement sets the stage for how *Sea Basing* will perform myriad tasks. Consider *Sea Basing* performing the task of:

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[21] Sea Strike

[22] Vice Admiral Charles W. Moore Jr. and Lieutenant General Edward Hanlon Jr., "Sea Basing: Operational Independence for a New Century," United States Naval Institute *Proceedings*, January 2003.

"*Rapidly projecting force directly to the objective from strategic and operational distances.*"[23]

Empowered by *Sea Basing*, JFCs will have at their disposal an array of Carrier Strike Groups (CSGs), Expeditionary Strike Group (ESGs), Surface Strike Groups (SSGs), Maritime Prepositioning Groups (MPGs), and future high speed support vessels. By their very nature, by the doctrine the U.S. Navy employs, and by fact that our forces have demonstrated their ability to operate swiftly and independently, this distributed amalgamation of maritime forces is highly mobile and has the ability to provide the JFC access to nearly every coastline and nearly all of the world's landmass. According to *Sea Power 21*: "*Sea Basing provides the JFC with dispersed, netted, and sovereign platforms that are ready to respond*."[24] U.S. naval forces already possess a large portion of what *Sea Basing* envisions and if it stays the course with this construct it will only multiply the effectiveness of the joint force.

FOCUSED LOGISTICS CAPABILITIES

The four tasks listed under the Focused Logistics heading largely deal with providing exceedingly comprehensive, highly mobile, and widespread sustainment of the joint force as it operates abroad. Additionally, the joint force is charged with performing these tasks in theaters where the enemy will deny access to points of debarkation and where lines of communication are not fully under joint force control.

Predictably, *Sea Basing* will bear the brunt of these tasks. But here I would like to depart from listing the specific tasks followed by an explanation of what capabilities *Sea Basing* will bring to support them all – and yes, *Sea Basing* will probably, in one or more

[23] MCO JOC, p. 57.

[24] Sea Basing.

capacities, have to support them *all*. Instead, I intend to focus my analysis to an observation on the all-encompassing elements ***Sea Basing*** will provide the joint force.

If any true need exists for U.S. naval force transformation it will be, in very large measure, because of the MCO JOC logistics tasks. But before I begin my observation, it should be well understood what ***Sea Basing*** is *not*. ***Sea Basing*** is not simply a logistics element for the joint force. This vision is not the JFC's sea-based logistical arm for forces in remote and far afield areas. Other than logistics being a component capability of ***Sea Basing***, it should be understood that this concept is more about *where* the JFC will position his base of operations – that is, the sea.

U.S. naval forces, if history is to be any predictor of future events, will remain highly mobile in the time frame the Focused Logistics tasks are to be undertaken. As such, ***Sea Basing*** assets (ESGs, CSGs, MPGs), along with robust lines of communication to support these assets, will provide the JFC with those highly mobile joint forces. By their very nature and due to the composition of their units, U.S. naval forces will continue to be rapidly deployable, fully capable, and immediately employable. The concept of ***Sea Basing***, however, is not new to U.S. naval forces and throughout its history these forces have, through trial and error, defeat and victory, changed, adapted and evolved into a very effective and highly potent expeditionary force. But what is new is U.S. naval forces having to do this even more so under the construct of ***Sea Basing***.

Now, under the ***Sea Basing*** vision, U.S. naval forces will be required to use their unique capabilities to sustain a joint force that is comprised of entities not entirely made up of the maritime flavor.

The flexibility and optimistic outlook of what *Sea Basing* brings to the joint force is so much so that an entire draft Joint Integrating Concept – an on-going collaboration between the U.S. Army and Navy – was written to accommodate the joint force from the sea. The *Sea Basing Joint Integrating Concept* defines Sea Basing as:

> *"…the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the JOA. These capabilities expand operational maneuver options, and facilitate assured access and entry from the sea."*[25]

Sea Basing envisions supporting *a very large portion* of the joint force from the sea. "*The essence of Sea Basing,*" according to *Sea Power 21*, "*is the exploitation of the sea…as maneuver space for friendly forces. By controlling the sea, the U.S. Navy creates a sanctuary for joint forces.*"[26] The enablers to do this, according to *Sea Power 21*, are independence, access, mobility, and security. First, the joint force will be independent of host nations or areas where access to the land is denied by exploiting the freedom of the sea. Second, they will have access and mobility in that they will operate on nearly 70 per cent of the earth's surface – the sea. And lastly (and hopefully), they will be provided sanctuary and security under the aegis of *Sea Shield*, positioned on the sea. According to *Sea Basing*: "*Readily available forward-operating bases will be central to joint operations in the 21st century, and, while not invulnerable, there is no forward-staging area more secure and sovereign than a sea base.*"[27]

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[25] U.S. Joint Forces Command, *Sea Basing Joint Integrating Concept*, October 2004, Suffolk, VA. p. 7.

[26] Sea Basing

[27] Ibid.

Nevertheless, the tasks of this title are logistically-oriented and an extended on-station time and sustainment of the joint force is still required. *Sea Basing* will satisfy both the on-station and sustainment piece just as the joint force currently does: through the use of the U.S Transportation Command's Component Commands: the Military Sealift Command, the Surface Deployment and Distribution Command, and – optimistically – the Air Mobility Command (AMC). Although neither the U.S. Air Force nor AMC have been formally involved in the *Sea Basing Joint Integrating Concept*, it is hard to envision that they would not have a very active role in whatever form this concept eventually takes. Notwithstanding, *Sea Basing* does have two promising enablers for its vision: The Military Sealift Command and the Maritime Prepositioning Force Future (MPF(F)) ships.[28]

The challenges for *Sea Basing* go without saying. They are daunting. But *Sea Basing*, in its strategic form, does answer all of these tasks confidently. This confidence comes from U.S. naval forces having established an historical precedent. They have proved they can supply and sustain a large U.S. force over and over again, albeit they now have to do it on an even grander scale.

PROTECTION CAPABILITIES

Defending and shielding the joint force, it "systems," and its "processes" against a host of threats are the principle tasks outlined under this heading. Consisting of three tasks, the Protection Capabilities tasks range from providing security for the entire joint effort

[28] The MSC, comprised of 119 ships, and another 96 surge-ready ships ranging from oilers, store ships, and ammunition ships, to ocean-going tugs and hospital ships, will provide the logistics sustainment for the joint force. Thirty-six of these ships are designated Prepositioning (PREPO) ships reserved for Marine Corps, Army, Navy, and Air Force military equipment and supplies.

within the Joint Operations Area, to defending against CBRNE (chemical, biological, radiological, nuclear and high yield explosives) attacks.

Sea Shield

Sea Power 21's *Sea Shield* is advertised as: "[providing] *a layered defense to protect the homeland, sustain access to contested littorals, and project a defensive umbrella over coalition partners and joint forces ashore in distant theaters*."[29]

Sea Shield's vision has divided this protection under three major areas: (1) Theater Air and Missile Defense (TAMD), (2) Sea and Littoral Control, and (3) Extended Homeland Defense. Aside from the Homeland Defense feature, *Sea Shield*'s vision may be able to meet the demands of the protecting the joint force *as outlined in the tasks*. Consider TAMD. *Sea Shield* states TAMD will protect the joint force from cruise and ballistic missiles and will add capabilities assuring the dominance enjoyed by the joint force while conducting air defense. Sea and Littoral control, according to *Sea Shield*, will protect the joint force from "*surface and subsurface threats [to] include small, fast surface combatants, modern ultraquiet [sic] submarines, and an array of floating, moored, and buried mines*"[30] with the such platforms as the low radar cross section Littoral Combat Ship (LCS) and DD(X), and a host of UUVs and many other emerging technologies.

But while both of these *Sea Shield* protection features adequately detail what *systems* will provide the joint force with this protection – from DD(X), RMP, CEC and Link-16, to LCS, UUVs, and ballistic missile defense versions of the Standard Missile – it does not adequately detail *how* it will provide it. This may be, in part, because the MCO JOC

[29] Sea Shield

[30] Ibid.

Protection tasks themselves are not fully developed. Of all the tasks outlined in the MCO JOC these seem to be the most general in their content. While Anti-Terrorism/Force Protection (AT/FP), not specified as a task, could fall under a rubric of, say, "*provide security of our forces*," perhaps a separate task should be devoted to strictly AT/FP measures. There is also no task mentioning the protection of friendly critical strengths, weaknesses and, especially, centers of gravity. Perhaps the MCO JOC tasks assume that this is an *implied task* of the joint force. Perhaps it does not. If tasks are to be promulgated why not include within them such "big ticket" tasks as protecting a center of gravity? As stated in my introduction the visions of a future transformed naval fighting force are largely based on these tasks and when these tasks are not fully developed or thought through to their end it will have implications on *Sea Power 21* and other visions relying on this concept. Perhaps the vagaries of *Sea Shield* lend themselves in large measure to the vagaries in the tasks of the MCO JOC.

Conclusion

While appearing and being heralded as the way in which U.S. naval forces will operate in the future, *Sea Power 21*, accompanied by the auspicious visions of its supporting "pillars," would seem to support the MCO JOC tasks. To be sure, throughout the *Sea Power 21* series there is a mosaic of the word "joint." Terms like "joint integration" and "supporting the joint force" emerge in every pillar and would appear to the casual observer as *Sea Power 21* supporting the joint effort. However, these words are somewhat vacant and the forecast is misguided. With the exception of *Sea Basing*, *Sea Power 21* more closely resembles a verbose list of platforms, systems, and weapons loosely wrapped in the appearance of an operational concept. It is wanting in doctrine and it does not answer the

"how" question. For example, *How do our naval forces implement Sea Strike in the joint arena?* – not *What weapons will Sea Strike use?* – is a sample question *Sea Power 21* should answer. When *ForceNet* says it wants to arm our forces with "superior knowledge" and provide our leadership with "focused, timely, and accurate data" it should reinforce this with a vision on how it intends to do it.

Perhaps *Sea Power 21* is an ad hoc vision forced upon a navy compelled to transform by such mandates as the DOD's *Transformation Planning Guidance* and the *Naval Transformation Roadmap 2003* where these visions, perchance, do not adequately address the end-state for a transformed navy. These, in turn, conceivably forced the U.S. Navy to craft some vision – *any vision* – of a transformed force, just to "meet the mail," so to speak. What merit this line of thought evokes would be mere speculation on my part. Therefore, what remains is doctrine.

Although doctrine is most likely the answer to the "how" question, it may, in fact, be something the U.S. Navy cannot, yet, get its arms around. Doctrine is fundamentally the compilation and employment of lessons learned and in view of the fact that the U.S. Navy has not yet quantitatively learned any lessons as it implements *Sea Power 21* it is difficult to simply create doctrine when there is no firm foundation upon which to develop it. Certainly, as the U.S. Navy begins implementing *Sea Power 21* the lessons learned databases will be populated and this, in turn, will matriculate down into something tangible making way for the essential doctrine.

The *Sea Basing Joint Integrating Concept* is an example of this doctrine and is a promising endeavor. Co-authored by the Army and Navy, it may provide a guidepost for the other pillars of *Sea Power 21* to follow. *Sea Power 21* should be developed as a joint effort

where expectations, goals, and detailed doctrine are the tools that shape and mold the U.S. Navy's vision.

To be sure, *Sea Power 21* is a nascent concept. But this concept *will be* the foundation for future joint warfighting for the U.S. Navy. It is not as if *Sea Power 21* were one of myriad operational concepts waiting to be reviewed and perhaps chosen as "the concept." *Sea Power 21* is it.

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Appendix A

Major Combat Operations Joint Operating Concept Tasks

*Tasks analyzed in the paper.

Command and Control Capabilities

1. Clearly express a compelling and nested intent of what needs to be accomplished, using common frames of reference among military, interagency and coalition partners.

2. Define desired effects discretely enough to focus planning and determine requisite actions at all levels, and communicate desired end state(s) and effects to the lowest level required in order to execute the actions that lead to desired effects, assess the results of those actions, and adapt as necessary to achieve those effects.

3. Express commander's intent that will achieve the overall strategic purpose, or the eventual political end state, while in a dynamic environment, without undue focus on specified tasks; and assure understanding of the commander's intent at the lowest, actionable, relevant level.

*4. Facilitate both centralized and decentralized decision-making as appropriate, exploiting decision support tools to make well-informed decisions faster than the opponent.

*5. Provide effective leadership (based on selection, training, education, and experience of leaders) in a combined, adaptive, collaborative environment.

*6. Maintain a robust, joint network that (1) avoids single points of failure, (2) enables graceful degradation, (3) is based on uniform standards at the data and information level to allow warfighters throughout the force to use applications without compromising interoperability, and (4) promotes the ability of commanders at all levels to decide and act with greater assurance and speed.

7. Field and employ coherently joint, trained, and practiced headquarters elements that integrate a standing joint command and control capability with Service operational headquarters without disruption to or degradation of command and control functions.

Battlespace Awareness Capabilities

*1. Maintain persistent situational awareness and achieve shared understanding through a collaborative environment among joint, interagency, and multinational partners in order to know the full dimensions of the operational environment, our adversaries, others, and ourselves.

2. Conduct planning in a collaborative environment that is flexible, robust, supported by automated decision tools (including a common relevant operational picture [CROP]), and extends beyond the bounds of MCO in order to facilitate stability operations.
*3. Deploy a robust, pervasive, dynamically tailored, and high-fidelity intelligence, surveillance, and reconnaissance (ISR) system, to include human intelligence (HUMINT) and space platforms.

4. Comprehensively, expertly, and robustly analyze intelligence, using in-depth knowledge of area studies, local cultures, and languages; and the ability to perform effects-assessment (including non-quantifiable effects), all incorporating a thorough appreciation of friendly, adversary, and other actors in the battlespace.

5. Establish a secure, broadly accessible, tailorable, and user-friendly common relevant operational picture (CROP), based on an Operational Net Assessment (ONA)-like system that is authoritative and updated frequently.

Force Application Capabilities

1. Develop processes, procedures, and automated support systems to fully integrate fires and maneuver, using enhanced kinetic and nonkinetic weapons, to increase lethality.

*2. Provide offensive capability to counter enemy anti-access systems including:

- Rapidly detecting, neutralizing or destroying mines at standoff ranges and in-stride.
- Using fixed and deployable detection and tracking sensors at strategic port approaches and chokepoints to complement persistent anti-submarine warfare.
- Rapidly defeating improved enemy air defense systems.
- Countering enemy theater and tactical missiles with highly deployable systems that provide warning, intent, location, launch, and destruction (pre-launch, cruise and terminal phase, and over-the-horizon).
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*3. Rapidly project force directly to the objective from strategic and operational distances.

4. Rapidly deploy, employ, and sustain adaptive, modular, mission capability forces and packages to and throughout the battlespace, without creating predictable patterns.

5. Fully integrate joint, interagency, and coalition (combined) capabilities, from the strategic level down to the lowest practical level, to be able to employ all useful means and avenues of influence among all relevant actors, throughout the battlespace.

6. Empower commanders to conduct flexible and responsive operations at every useful level, to include Information Operations (IO) and maneuver and precision engagement operations that are supported by enhanced integrated combined fires and compressed sensor-to-shooter-to-impact engagement capabilities.

7. Streamline deployment processes to satisfy Combatant Command needs, positioning friendly forces within operational reach of critical targets, while denying adversary forces access to key friendly targets.

8. Conduct large-scale, simultaneous and distributed, multidimensional combat operations (including unconventional and forcible-entry operations) regardless of existing target area infrastructure and environmental conditions; isolate the battlespace from unwanted influences; engage with great discrimination; move with great speed; and identify and eliminate or neutralize an opponent's asymmetric advantages, while securing and strengthening friendly asymmetric advantages.

9. Integrate Deployment, Employment, and Sustainment (DES) of the force in order to eliminate unnecessary redundancies, reduce friction, stimulate synergy, and enhance the effectiveness, efficiency, and economy of operations.

*10. Provide multidimensional precision engagement, including close fire support by exploiting high-endurance manned and unmanned launch platforms which combine ISR and engagement capabilities, deep-reach precise fire support including sea-based and long-range aerospace components to support forcible-entry operations, lethal and nonlethal (nuclear and conventional) fires, fires capable of type-target discrimination, time-sensitive targeting, and in-flight re-targeting of smart weapons.

***Focused Logistics Capabilities**

1. Establish and operate an adaptive, elastic, and ubiquitous distribution-based sustainment system, along with the requisite informational architecture, so that agile and dispersed forces do not outrun or lose their ability to request and receive time-definite support, with customer wait time measured in minutes and hours, not days and weeks.

2. Establish a joint sustainment force that is rapidly deployable, fully capable, immediately employable, flexible, highly mobile, modular, tailored, networked, survivable, and responsive to supported forces.

3. Maintain persistent deployment, employment, and sustainment situational awareness, and achieve shared understanding at multiple echelons (to include coalition partners), enabled by a coherently joint logistics common relevant operational picture, a reliable information and communications network, and automated decision tools in order to anticipate, predict, plan collaboratively, synchronize, and satisfy deployment and sustainment requirements that occur throughout a campaign.

4. Project and sustain forces when the adversary is competent and determined, strategic and theater lines of communication are not secure, access through fixed seaports and airfields in the battlespace is denied, and supported forces are widely dispersed in the battlespace.

5. Reduce the need for sustainment pauses, enabled by improved commonality, reliability, maintainability, sustainability, and survivability in order to conduct relentless operations.

***Protection Capabilities**

1. Provide security for our forces, systems and processes (to include critical infrastructure, information and space capabilities) from origin to final objective positions within the Joint Operations Area.

2. Rapidly sense, detect, identify from standoff range, defend against, and recover the force from chemical, biological, radiological, nuclear, and enhanced-explosives attack.

3. Employ combat vehicles and support vehicles (and platforms) designed with survivability features such as improved speed, low observable and low signature stealth, protective construction (e.g., blast mitigation coatings, fragmentation resistant materials, shock resistance, reactive armor), and organic automated defense against smart weapons.