



**The United States Army
Concept Capability Plan for**

**U.S. Army Contributions
to Joint Land Operations
from a Joint Sea Base**

**for the
Future Modular Force**

2015-2024

Version 1.0

23 March 2009



Foreword

***From the Director
U.S. Army Capabilities Integration Center***

The United States Army Concept Capability Plan for U.S Army Contribution to Joint Land Operations from a Joint Sea Base for the future Modular Force 2015-2024 will serve as the baseline document to integrate seabasing capabilities for the future Modular Force. TRADOC Pamphlet (Pam) 525-7-10 focuses on the application of integrated sea based capabilities from different proponents in the Army and introduces a goal to develop a comprehensive sea based capability across the force that will increase deployment speed, enhance employment options and support force sustainability. This concept capability plan (CCP) will lead to a sea based focused capabilities-based assessment. Existing joint capability based assessment (CBA) products will be used to the maximum extent possible. The CBA process will identify seabasing solutions for the future Modular Force. The focus of the Army seabasing CBA will be on integration and streamlining of deployment, employment, and sustainment across the spectrum of operations.

Within this document, the integrated capabilities development team has indicated specific functions the Army must successfully execute in order to conduct joint integrated seabasing operations. These functions will allow a commander to shape the battlefield for tactical advantage resulting in the ability to *see first, understand first, act first, reengage at will, and finish decisively*. As seabasing will support Army operations, it will further affect joint, interagency, and multinational operations, by providing a joint operating area that will provide a sanctuary that enables freedom of movement, has less reliance on land bases, and enables the full spectrum of operations.

As with all concepts, the TRADOC Pam 525-7-10 will be in continuous evolution. This CCP will be refined and updated as new learning emerges from research, joint and Army wargaming, experimentation and combat development. Many of the sea base enabled capability requirements introduced in the CCP will be further developed in other proponent capability documents. As this CCP crosses so many joint and Army functional areas, I strongly encourage its use in our interaction with other proponents, Services and joint organizations.


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Executive Summary

Introduction

a. Expeditionary warfare from the sea has always been an Army core competency. However, growing anti-access challenges, coupled with the critical need to increase deployment momentum, while simultaneously reducing predictability and vulnerability, demands that it increasingly do so with less dependence on developed air and sea ports.

b. Thus, the Army fully supports the concept of joint seabasing. As defined by the *Seabasing Joint Integration Concept*, "...seabasing is 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 joint operations area. These capabilities expand operational maneuver options and facilitate assured access and entry from the sea."

c. While endorsing this definition, the Army has continuously pursued a more holistic seabasing perspective, one that recognizes that by *synchronizing the sea base with other means of projection*, this capability increases strategic responsiveness. Accordingly, the Army perspective on seabasing reflects a scalable capability that expands the joint force commander's (JFC) options to conduct operational maneuver from strategic distances by rapidly projecting power from over-the-horizon to not only seize the initiative, but to rapidly transition to decisive operations, and to sustain extended operations throughout the campaign. By doing so, the Army seeks to address the historical expeditionary challenge of closing the gap between early-entry and follow-on forces, as well as synchronizing deployment with immediate employment and sustainment of arriving forces in a *deploy=employ=sustain* paradigm, within any operational environment.

d. These attributes of how the joint force will fight are clearly articulated in the Joint Publication *Capstone Concept of Joint Operations* to meet the challenges of the future joint operating environment (JOE). The JOE projects an extended period of persistent conflict with state and non-state actors – much of it in urban areas – over the next several decades due to the impact of globalization and expansion of political extremism. Not only will increased regionalization foster greater political, military, and economic hegemony, but there is the likely potential for increased competition for dwindling natural resources, especially oil, energy and potable water, that may well extend into conflict between first world nations unless alternative sourcing can be peacefully developed in a timely fashion.

e. During this strategic period, U.S. options to extend global influence through forward basing of military capability are diminishing or being adversely altered. Compounding this challenge to future force projection, our adversaries are expected to increasingly employ both political and military anti-access capabilities to prevent or limit U.S. involvement in regional crises as a means of attempting strategic exclusion.

f. Many, if not most, of our future operations will occur in the world's littorals, congested areas that are home to over three-quarters of the world's population, the locales for over 80

percent of the world's capital cities and serve as the marketplaces for nearly all international trade. Consequently JFCs will rely on seabasing to complement, integrate and enable joint military capabilities throughout the littorals with minimal or no access to nearby land bases.

g. Clearly then, seabasing is not, as many have incorrectly concluded, an exclusive Navy and Marine Corps domain, nor is it limited to a single brigade-force capability that is enabled by afloat prepositioned equipment sets. To achieve its maximum potential, seabasing must include synchronization with other means of projection, thereby enhancing strategic and operational responsiveness throughout the military campaign, as well as throughout the operational spectrum. In fact, except for those operations of the smallest scope, future seabasing operations will of necessity be comprised of joint, interagency intergovernmental, and multinational (JIIM) capabilities.

Scope

a. TRADOC Pam 525-7-10 is intended to focus the Army's efforts to exploit the sea as maneuver space and by identifying the required capabilities needed across the full spectrum of operations during the 2015–2024 timeframe. It is designed to achieve the four imperatives below.

(1) Facilitate integration of JIIM seabasing capabilities across the full range of operations.

(2) Improve and enhance the Army's ability to conduct joint operations via existing seabasing capabilities.

(3) Corroborate capability gaps previously identified in the on-going joint capabilities based assessment process, and identify any Army-unique seabasing capability gaps.

(4) Systematically and deliberately evolve Army seabasing support operations over time to provide dedicated, responsive theater focused support to operational and tactical commanders.

b. Central to achieving these imperatives, the concept describes the need to reduce the size of deployment and sustainment infrastructure ashore, including the number of nodes, while ensuring sufficient capability to extend seabasing force projection and sustainment to the point of need.

c. This CCP bases its overarching key ideas and required capability statements directly from the joint and Army concepts, thus incorporating the capabilities required by the future Modular Force. Further, by identifying existing capabilities in the current, mid- and far-terms, it recognizes that although many of these capabilities are yet to be realized, they represent the bridge between the current and future Modular Forces. This listing of required capabilities should be interpreted as optimum capabilities for the 2015-2024 timeframe.

d. As the Army moves forward in its transformation, and achieves future Modular Force qualities, it must, in all its mission areas, recognize that Army concepts and CCPs are the basis

for the development of future Modular Force capabilities. The holistic approach of this concept should support any number of future capability-based assessments. The power and capabilities the Army generates from the sea are integral components of the future Modular Force's success.

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TRADOC Pamphlet 525-7-10

23 March 2009

Military Operations

U.S. ARMY CONTRIBUTIONS TO JOINT LAND OPERATIONS FROM A JOINT SEA
BASE CONCEPT CAPABILITY PLAN

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History. This publication is a new United States Army Training and Doctrine Command (TRADOC) concept capability plan (CCP) developed as part of the Army concept strategy for the future Modular Force and as part of the capabilities based assessment process.

Summary. TRADOC Pamphlet (Pam) 525-7-10, *The United States Army Concept Capability Plan for U.S Army Contribution to Joint Land Operations from a Joint Sea Base* provides a plan for integrating Army seabasing capabilities and identifying doctrine, organization, training, materiel, leadership and education, personnel, and facilities solutions and solution sets for seabasing capability gaps during the 2015-2024 timeframe. This CCP focuses on the strategic, operational, and tactical application of integrated seabasing capabilities during full spectrum operations. This concept draws from approved and draft documents addressing the Army's modular forces to include the division, corps, and Army service component commands in addition to the Army's future brigade combat team operational and organizational plan, and emerging joint and Army concepts relevant to Department of Defense and Army transformation.

Applicability. This CCP applies to all TRADOC and Department of the Army (DA) activities that identify and develop doctrine, organization, training, materiel, leadership and education, personnel, and facilities solutions to field required seabasing capabilities. It may also serve as a reference document to agencies within Army and joint communities that plan or are concerned with seabasing operations and initiatives.

Proponent and supplementation authority. The proponent of this pamphlet is the TRADOC Headquarters, Director, Army Capabilities Integration Center (ARCIC). The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. Do not supplement this pamphlet without prior approval from Director, TRADOC ARCIC (ATFC-ED), 33 Ingalls Road, Fort Monroe, VA 23651-1061.

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Chapter 1 Introduction

1-1. Purpose

a. TRADOC Pamphlet (Pam) 525-7-10 describes the Army's current capability to support joint seabasing and to identify any future Modular Force capability requirements necessary to achieve the maximum advantages already ascribed to joint seabasing. It provides the supplemental foundation for future Modular Force development and serves as the baseline for experimentation described by the Army Concept Development and Experimentation (CD&E) Plan. The foundation for the Army's sea based capabilities are established by a detailed analysis of National, defense, and military strategies select joint operating, functional, and integrating concepts; and the nine concepts from the Army concept strategy framework. The strategy includes the capstone publication: TRADOC Pam 525-3-0, The Army in Joint Operations; operating publications.; TRADOC Pam 525-3-1, The U.S. Army Operating Concept for Operational Maneuver and TRADOC Pam 525-3-2, The U.S. Army Operating Concept for Tactical Maneuver; functional publications, TRADOC Pam 525-2-1, See; TRADOC Pam 525-3-3, Battle Command; TRADOC Pam 525-3-4, Strike; TRADOC Pam 525-3-5, Protect; TRADOC Pam 525-3-6, Move; and TRADOC Pam 525-4-1, Sustain, and special concept publication TRADOC Pam 525-3-7, Human Dimension. This plan will consider the range of effects required by the Army to operate from a joint sea base in the context of full spectrum operations, particularly major combat operations (MCO), in collaboration with joint, interagency, commercial, and multinational partners. This document will set forth the process of determining potential doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) solutions to enable this concept and will form the basis for the subsequent seabasing capabilities based assessment (CBA) of the Army's future Modular Force seabasing capability needs. Wherever possible joint CBA products will be leveraged to the maximum extent possible.

b. The definition for seabasing as defined in the Seabasing Joint Integrating Concept (JIC) is "...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 joint operations area (JOA). These capabilities expand operational maneuver options, and facilitate assured access and entry from the sea."

c. In June 2004, the Joint Requirements Oversight Council directed completion of the Seabasing JIC and a Seabasing JIC CBA. The United States (U.S.) Navy, served as the Joint Capability Integration and Development System (JCIDS) sponsor for seabasing, and led the development of the Seabasing JIC. The Joint Staff, J-8, Studies, Analysis, and Gaming Division served as the lead for the CBA effort and chair for the Sea Base Working Group. The council endorsed the Seabasing JIC in 2005. The functional area analysis and functional needs analysis have been completed and a draft joint capabilities document is under development that will inform the subsequent functional solution analysis. During the course of the Seabasing JIC CBA it became evident that the Army needed to determine a corporate position on the capability

requirements to conduct land component operations from the future joint sea base, hence, the purpose of TRADOC Pam 525-7-10.

1-2. Functional Areas

TRADOC Pam 525-7-10 aligns primarily with the force management functional area. In fact, the Force Management Functional Capability Board (FCB) manages and has oversight of the joint seabasing concept. However, the force application, focused logistics, net-centric, command and control (C2), operational environment (OE) awareness, and protection functional areas also support this concept.

1-3. Scope

a. The TRADOC Pam 525-7-10 is bound by the guidance framed in the strategies and concepts described in the subsequent paragraphs and focuses on seabasing capability requirements for the future Modular Force during the 2015-2024 timeframe. To remain concise only the most fundamental strategic policies and joint conceptual documents will be considered while all of the nine concepts in the Army concept strategy framework are drawn upon to justify future Army seabasing capability requirements.

b. At the joint level the Capstone Concept for Joint Operations (CCJO) provides the foundation to consider key subordinate joint operating, functional and integrating concepts. Particularly the Seabasing JIC and the MCO joint operating concept (JOC) provides the basis for describing the required Army seabasing effects while the six Army functional concepts form the topics under which Army seabasing capabilities statements are grouped in chapter 3. The MCO JOC was selected for the prescriptive vignettes that describe the Army seabasing capabilities.

1-4. Relation of National Strategies and the Role of the Army in Seabasing

a. National-level, Department of Defense (DOD) and Department of the Army (DA) strategies provide broad guidance on how the future force will fight and win. These strategies identify future threats from the Western Hemisphere, through Africa and the Middle East, and extending to Asia and outlines broad guidance on military capabilities required to counter these emerging threats.

b. These emerging threats include transnational insurgent networks, rogue nations, and aggressive states that possess, or are working to gain, weapons of mass destruction (WMD) or weapons of mass effect (WME). As a result of these emerging threats, the Army must be able to provide tailored deterrence and rapidly deployable expeditionary forces that will be accomplished by investing in advanced capabilities. These capabilities will include offensive strike, active and passive defenses as well as responsive force capabilities to thwart these future threats.

c. These National strategies prescribe common required qualities and capabilities that are intended to shape the future force and concepts such as seabasing, to ensure success on the battlefield of tomorrow. These capabilities include a more agile, flexible and robust expeditionary joint force, rapidly and immediately employable with minimal reception, staging,

onward movement and integration (RSO&I). They also include support mobile, expeditionary operations, forward presence through seabasing, long-range strike capabilities, counter anti-access capability, reduced forward logistics footprint and increased logistics flexibility, maneuver flexibility, and network-centric operations.

1-5. Relation of the Joint Concepts and the Role of the Army in Seabasing

a. The CCJO heads the family of joint operations concepts which include Homeland Defense, Strategic Deterrence, Stability Operations, and MCO. The CCJO describes how joint forces are expected to operate across the range of military operations during the 2015-2024 timeframe. In addition to the JOCs, there are joint functional concepts. These include joint C2, Force Application, Focused Logistics, and Net-Centric Warfare. There are also JICs including C2, Joint Logistics (Distribution), Joint Forcible Entry Operations (JFEO), and Seabasing, which articulate how a future joint force commander (JFC) will integrate related military tasks and joint capabilities to generate effects and achieve an objective across the spectrum of military operations to include operations from a joint sea base.

b. The CCJO provides strong underpinnings for a sea base capability in its description of requirements for an expeditionary, flexible, responsive, and globally employed joint force. It lists the following supporting ideas on how the future joint force will operate. It will operate in multiple directions and domains concurrently, with integrated and interdependent actions. The joint force will project and sustain the force, act directly upon key elements and processes, control tempo, transition quickly and smoothly, manage perceptions and expectations, and act discriminately.

c. Numerous joint operational, functional, and integrating concepts reflect a common theme of requiring flexible, agile and robust forces to meet the adversarial threats of the future. These include leveraging forward presence and joint interdependence, aligning force projection, employment, and sustainment activities, provide scalable, responsive joint power projection, and acting with speed, precision, discrimination, and lethality. They also include reducing force closure times to achieve strategic velocity, reducing and, when required, eliminating RSO&I support requirements, utilizing forcible entry operations when required, establishing multiple expeditionary aerial and maritime points of entry, expanding access options, and reduce dependence on land bases, and applying force along multiple axes simultaneously or sequentially. Finally, they include presenting the adversary with multiple dilemmas, directing delivery of tailored mission capability packages commanding and controlling distributed operations, utilizing the sea as maneuver space, protecting joint force operations, and sustaining joint force operations from the sea.

1-6. Relation of the Family of Army Functional Concepts and the Role of the Army in Seabasing

a. TRADOC Pam 525-3-0, The Army in Joint Operations identifies seven key ideas depicted in figure 1-1, which govern the Army in future force joint operations. These include operational maneuver from strategic distances, shaping and entry operations, intratheater operational maneuver, decisive maneuver, concurrent and subsequent stability operations, distributed support

and sustainment, and networked-enabled battle command. These ideas are the cornerstone for the operational concepts, TRADOC Pam 525-3-1, The U.S. Army Operating Concept for Operational Maneuver and TRADOC Pam 525-3-2, The U.S. Army Operating Concept for Tactical Maneuver, and the functional concepts, TRADOC Pam 525-2-1, See; TRADOC Pam 525-3-3, Battle Command; TRADOC Pam 525-3-4, Strike; TRADOC Pam 525-3-5, Protect; TRADOC Pam 525-3-6, Move; and TRADOC Pam 525-4-1, Sustain. Figure 1-1 depicts how these Army key ideas link to the seabasing principles.

b. There are several common themes and capabilities that are required for the future Modular Force to operate with an expeditionary mindset and can be effectively enabled through seabasing. These include rapid projection of scalable combined arms formations, employ advanced lift packages, close gap between early entry and follow-on forces, link strategic force projection to operational agility throughout campaign, deploy=employ; early transition to decisive operations; seize the initiative using multiple entry ports; and immediate operations upon arrival. These also include multiple dilemmas for adversaries; shaping the battle space throughout campaign, setting conditions for decisive operations, strike, and maneuver throughout the JOA. Other themes include direct attack of enemy centers of gravity; the direct attack of decisive points; the simultaneous, distributed operations; decisive precision maneuver; tactical mobility, flexibility, information and fires to achieve tactical decision; and Integration of joint, interagency, intergovernmental, and multinational (JIIM) assets from strategic to tactical level.

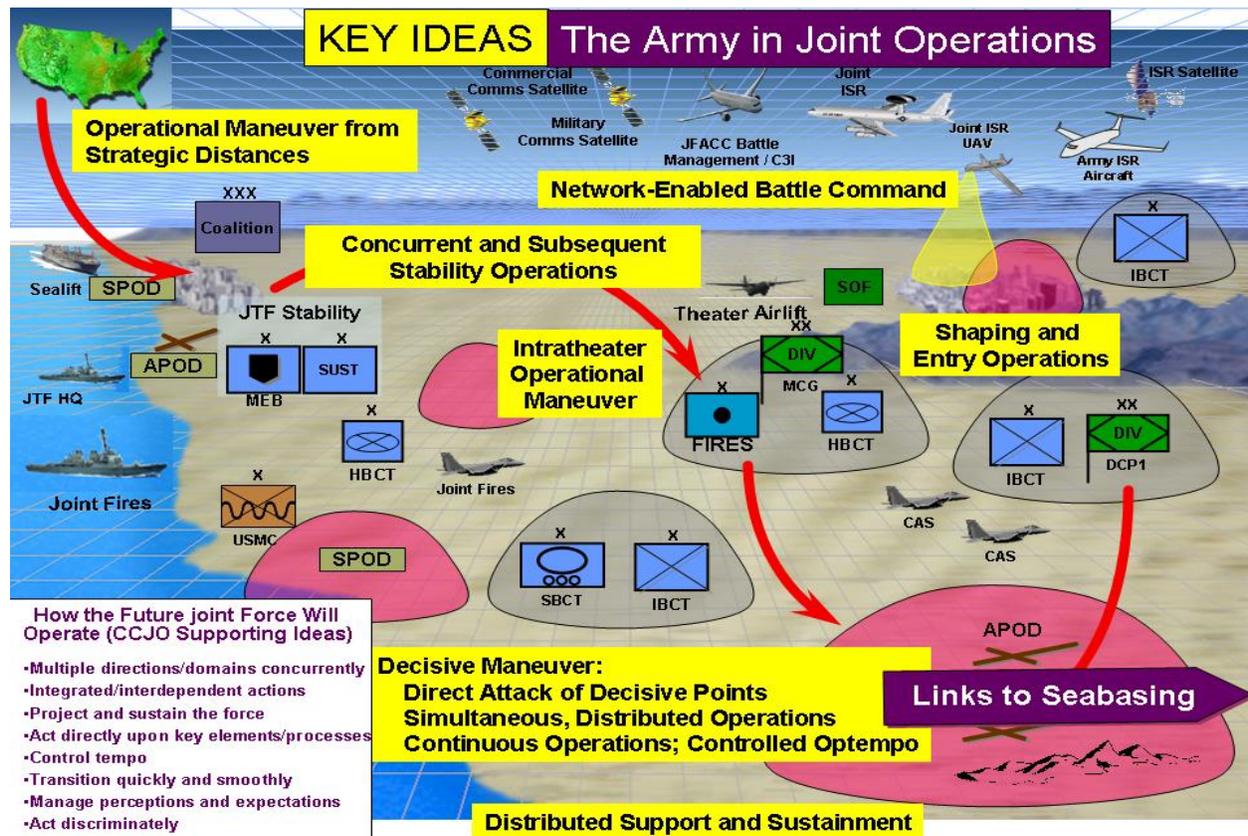


Figure 1-1. Army Capstone Concept Operational View

c. Linkage of the Army seabasing concept to National, strategic, joint and Army strategies and concepts is described in figure 1-2. Specific Army seabasing themes are identified, defined, and developed from the strategic, joint and Army concepts and serve as the underpinnings of this CCP.

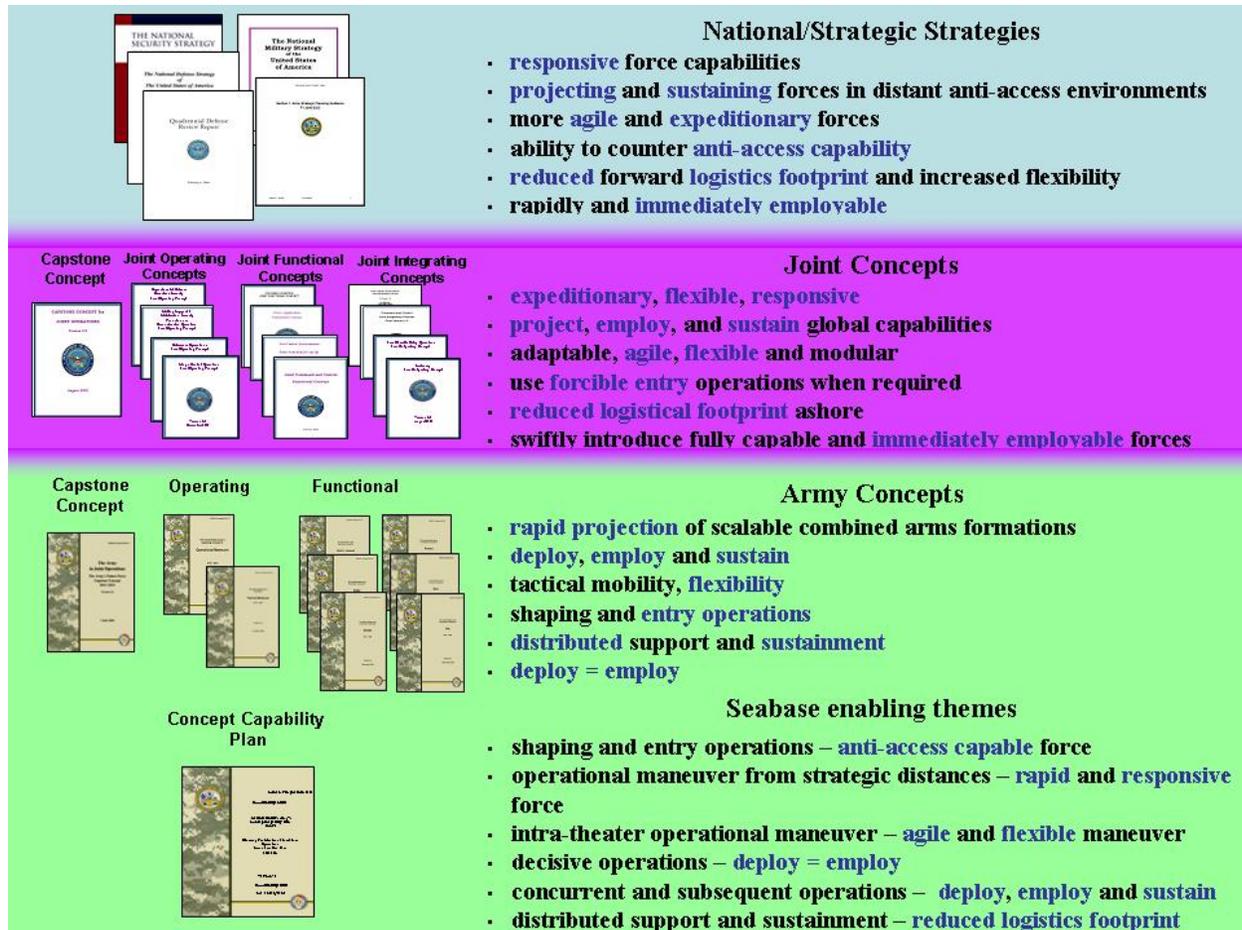


Figure 1-2. Seabasing Concept Linkage

1-7. References

Required and related publications are listed in appendix A.

1-8. Explanation of Abbreviations and Terms

Abbreviations and special terms used in this CCP are explained in the glossary at appendix B.

Chapter 2

Concept Capability Plan (CCP)

2-1. Introduction

a. Why TRADOC Pam 525-7-10 is needed. Prior to TRADOC Pam 525-7-10 there was no Army concept or plan that detailed the Army's perspective on joint seabasing. This CCP fills this need, as well as providing references and support to seabasing CBAs. It describes the Army's current capability to support joint seabasing and identifies future Modular Force capability requirements necessary to achieve the maximum advantages ascribed to joint seabasing. It therefore provides a supplemental foundation for future Modular Force development and serves as the baseline for experimentation described by the Army CD&E plan.

b. Problem statement. The Army's capability to project and sustain forces currently relies upon developed seaports and airfields. However, the Army needs to develop a capability to be in consonance with the National security and defense strategies' mandate for projecting and sustaining force in distant, anti-access environments.

c. Description of Military Problem

(1) The Army's perspective on seabasing reflects a scalable capability to include logistics-over-the-shore capabilities, theater opening, Army watercraft, and prepositioned vessels with equipment and sustainment stocks that expands operational maneuver options by rapidly projecting power from over-the-horizon to seize the initiative and, by synchronizing with other means of force projection, and rapidly transition to decisive operations. By doing so, the Army seeks to address the historical expeditionary challenge of closing the gap between early-entry and follow-on forces.

(2) The future joint operational environment (JOE) predicts that over the next two decades, U.S. joint forces will operate in a geo-strategic environment of considerable instability. Increased regionalization will afford greater political, military, and economic hegemony while non-state actors will operate more frequently on the global scene. Both state and transnational non-state actors will employ or threaten violence, including terrorism as a means to pursue their interests. Globalization will require international action to address a wide range of security issues. This will create friction as cultures, religions, governments, and economies collide in a highly competitive global setting.

(3) Creative and adaptive future adversaries are expected to adopt anti-access strategies, involving several integrated lines of operation (from diplomacy to information operations (IO) to military actions), aimed at preventing or limiting U.S. involvement in regional crises. At the same time, U.S. options to extend global influence through forward basing of military capability are diminishing or being adversely altered. These and other factors necessitate a continual assessment of how to best develop and deploy our capabilities in order to address the full range of operational requirements.

(4) One key impact of these combined challenges is the need for an enhanced expeditionary mindset, which entails grappling with the challenges of uncertainty of where the Army will deploy, the probability of an austere operating environment, and the likelihood of having to fight on arrival.

(5) The Army can expect many, if not most, of our future operations will occur in the world's littorals. These congested geographical areas are home to over three-quarters of the world's population, the locales for over 80 percent of the world's capital cities, and serve as the marketplaces for nearly all international trade, as reflected in Naval Operations Concept 2006. The *Seabasing JIC* in turn describes how the presence, closure and assembly, employment, sustainment, reconstitution, and re-employment of operational capabilities at sea, through the sea, and from the sea will enhance stability through engagement, assure access to critical regions and expanded maneuver options across the spectrum of operations.

(6) Seabasing is not an exclusive Navy and Marine Corps domain. Expeditionary warfare from the sea has always been an Army core competency from the landings in Normandy to the island hopping campaign in the Pacific from Guadalcanal to Okinawa, but there are currently no concepts on how the Army will operate from the sea base in the future. The added challenges of a growing anti-access environment demands that the Army increasingly operate with less dependence on developed airfields and seaports.

(7) Seabasing will allow initial forces to be placed into battle quickly to limit and shorten the conflict, to employ the element of surprise, and/or to support threatened allied forces. After the initial assault, and before the arrival of heavier, larger forces, the combat effectiveness of the force degrades due to fatigue, enemy action, or unexpected actions. During this period the initial force is capturing and preparing theater seaports of debarkation (SPODs) and airports of debarkation (APODs) required by follow-on forces. This period following the peak of the initial assault can be termed a vulnerability gap, see figure 2-1. This phenomenon also applies to the sustainment of deployed forces. Under current operations, this vulnerability gap becomes the time between the initial arrival of forces to the JOA and the time when logistics and sustainment is in place.

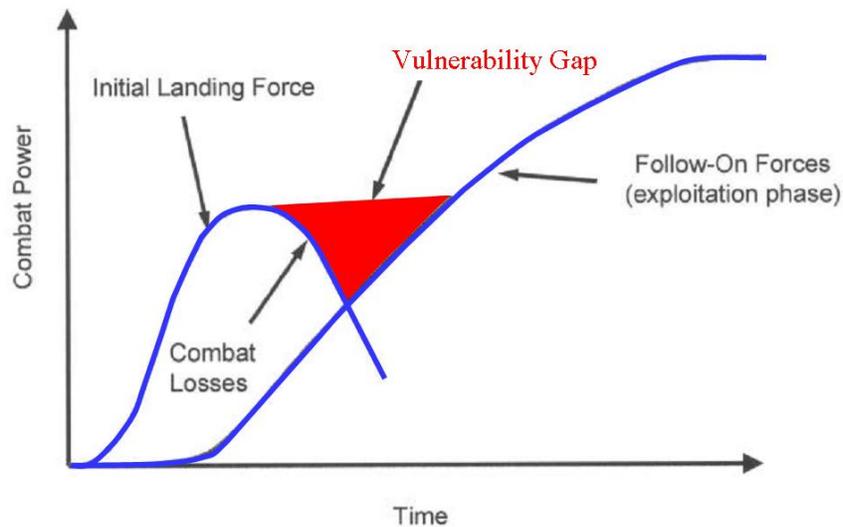


Figure 2-1. Vulnerability Gap

(8) Over the past century, projection of military power from the sea has followed a similar pattern, especially when attacking an opponent who possesses the ability to reinforce his troops. Even when there was every expectation that a landing might occur, the attacker has usually enjoyed the advantage of being able to choose the place and time of his amphibious operations...the initial advantage of tactical surprise, however, usually proved difficult to convert into an immediate operational or strategic success...once lost, momentum can only be regained by the buildup of superior military forces and their sustainment.

(9) The inherently expeditionary DOTMLPF capabilities of the future Modular Force will significantly increase the Army's ability to support joint seabasing. However, achieving the full attributes of joint seabasing will require significant planning, development, and investment in force and material projection capabilities from the sea and a myriad of anti-access, anti area denial countermeasures. These include such future joint force capabilities as those below.

(a) High-speed inter- and intratheater sea and air lift capable of employing and sustaining heavy and medium forces in close proximity of the JOA using undeveloped and austere ports.

(b) Enhanced afloat forward staging bases (AFSB) and maintenance facilities that reduce the overall land-based logistical footprint

(c) In-stream discharge and transfer capabilities and high speed connectors that support joint logistics-over-the-shore (JLOTS) operations which utilize an operationally focused combination of air and sea capabilities. In the future JLOTS will include the movement of personnel, equipment, and supplies by both air and surface means.

(d) Integrated theater missile and air defense, and integrated surface and sub-surface defense to ensure that the JFC will be able to close quickly, defeat the enemy and quickly prepare for follow-on operations.

(10) In order to achieve these joint seabasing conditions, the Army has a responsibility to influence the design and development of future seabasing capabilities. Thus, the following assumptions were used in developing this CCP.

(a) The seabasing concept is focused on the 2015-2024 timeframe in following with the Army concept strategy.

(b) U.S. joint forces will have reduced access to outside the continental U.S. (OCONUS) forward operations bases such as advance bases (ABs), forward logistics site, seaports, or airfields.

(c) U.S. joint forces will be required to conduct operations in anti-access environments.

(d) Concept of operations (CONOPS) and force structure will be based on steady state security posture, appropriate defense planning scenarios and multiservice force deployments campaigns.

(e) Seabasing will complement existing operational plans, contingency plans, and functional plans by reducing the footprint at land bases, denying the adversary essential elements of friendly information, reducing trans-loads and minimizing en route stops, and compressing reception, staging, onward movement and integration of joint forces.

(f) Future seabasing capabilities will be employed (for example, high-speed inter- and intratheater connectors (air and surface), selective off-load, inter-ship trans-load through sea state (SS) 4 capability, total asset visibility (TAV), in-transit visibility (ITV), inter-modal packaging, net-centric OE, Sea Shield, Sea Strike, see appendix F and the terms section.

(g) Key seabasing elements will continue to be deployed forward and prepositioned in accordance with current and future defense strategies

d. Traditional Role of the Maritime Forces

(1) As cited in the Naval Operating Concept, U.S. forces have historically accomplished the important maritime missions of forward presence, crisis response, deterrence, sea control, and power projection.

(a) Forward presence. U.S military forces deploy to, or station in, focused areas overseas to demonstrate national resolve, strengthen alliances, deter, and dissuade potential adversaries, and enhance our ability to respond quickly to crises.

(b) Crisis response. The U.S. military continues to provide a timely, worldwide response to unforeseen and rapidly unfolding natural disasters and manmade crises. Forward naval,

ground and air forces will be first on scene in an emerging crisis and will provide key enabling capabilities for other governments and private organizations and the introduction of follow-on forces and resources.

(c) Deterrence. U.S. military forces will deter and dissuade potential adversaries from acts of aggression by imposing the credible risk of conventional, unconventional, and nuclear consequences through the use of forward presence, afloat prepositioned equipment, and immediate response with land, air, and naval forces.

(d) Sea control. Control of the sea remains critical to the U.S.'s ability to operate in future environments. U.S. maritime forces will maintain the capability to destroy enemy naval forces, suppress enemy sea commerce, protect vital sea-lanes, and establish maritime superiority in support of a joint or combined operations. Control of the sea enables access and the ability to sea base.

(e) Expeditionary power projection. Enabled by seabasing, the military services can provide the JFC with global reach and access in order to take the fight to the enemy and help win our Nation's wars. Amphibious operations, strike warfare, IO and naval special warfare deliver flexible, scalable, and sustainable offensive capabilities at a time and place of our choosing.

(2) These traditional roles are still a valid requirement to ensure global security, but in the future the U.S. will face an unsure and continually changing operations environment and it must ensure that future Modular Forces are able to meet these challenges with speed and precision in a timely and decisive manner. The U.S. must ensure that its maritime capability is able to provide support during full spectrum operations and are fully integrated into the air and land campaign.

e. Future Role of Sea Base Forces

(1) The post 9/11 security environment has increased emphasis on the non-traditional mission areas of civil-military (stability) operations, counterinsurgency operations, counter-proliferation, counterterrorism, maritime security operations (including drug interdiction), IO, air and missile defense (AMD), and security cooperation with an expanding set of partners. The challenge today is to remain capable of traditional missions while simultaneously enhancing the ability to conduct non-traditional missions in order to ensure that naval power and influence can be applied at and from the sea, across the littorals, and ashore, as required. The complexity of joint and combined arms operations envisioned during the 2015–2024 timeframe will place high demands on JFCs and organizations.

(2) Future security environments will become increasingly complicated through changing international relationships, increased acts of terrorism, the expanded influence of non-state actors, and the proliferation of WMD and WMDE. As the U.S. security strategy for the 21st century continues to evolve, our Nation remains committed to its global responsibilities to ensure national security through peace, prosperity, and freedom. However, U.S. options to extend global influence through forward basing of military capability are diminishing or being adversely altered. Current APODs, SPODs, inter-nodal connectivity, and other mobility enabling systems are not adequate to meet political contingencies. The implications of this are still being studied,

but the challenge for our national and military leaders will be to maintain global presence and security in the face of anti-access or area denial environment. Thus, the Army needs to look across the strategic, operational, tactical, and net-worked environment of seabasing to identify capabilities required to ensure our success.

(a) Strategic. Seabasing provides three force employment options that can be exploited by the combatant commander (CCDR): conducting preemptive shaping operations through early joint integration of immediate response forces; seizing the initiative through accelerated closure and sustainment of rapid response forces; and seamless preparation for decisive operations through rapid reinforcement by follow-on forces. It provides the ability to assemble rapidly forces at the sea base with minimal or no in-theater host and coalition nation support. This enables force closure and employment of joint force capabilities when access is denied. Seabasing diminishes the political implications of host government support for U.S. forces by reducing insurgent ability to exploit our presence as a propaganda tool.

(b) Operational. Seabasing supports the parallel and concurrent execution of all phases of the campaign by enabling shorter response times and the simultaneous defeat of multi-dimensional threats. It enables joint force access, complements existing basing, and enhances power projection. Seabasing provides commanders with greater flexibility to rapidly and effectively build and integrate joint capabilities during the early stages of operations particularly when the political situation restricts basing, over flight or U.S. presence. Additionally, seabasing supports setting the conditions for the immediate integration of follow-on forces and sustainment of personnel, equipment, and supplies while minimizing footprint ashore. Seabasing also provides an array of joint force options and sustained employment through the flexibility afforded by projecting and sustaining forces through the sea base (strike, forcible entry, security operations, and special operations, freedom of navigation, humanitarian assistance, or disaster relief).

(c) Tactical. Seabasing supports high tempo, distributed joint operations, and the capabilities for unit recovery, replenishment, reconstitution, repositioning, and reemployment allowing for rapid response to emerging asymmetrical and conventional threats within or outside the area of operations. It enhances the sustainment of future expeditionary joint force operations while minimizing operational pauses associated with the build-up of large logistic stockpiles.

(d) Networked. Seabasing provides a dynamic, mobile, networked set of platforms from which joint forces can operate in relative safety, while reducing risk to vulnerable facilities ashore.

(3) Seabasing provides a new paradigm from which to examine and balance the strategic mobility triad (airlift, sealift, and prepositioning). Current strategic mobility cannot project and sustain U.S. forces in distant anti-access or area denial environments without reliance on land bases within the JOA in order to seize the initiative within minimal or moderate risk. A balanced strategic mobility triad that includes additional high-speed sealift and operational maritime prepositioning capabilities are needed to improve future mobility and sustainment capabilities. This document illustrates interdependence between a balanced strategic mobility triad and a compressed timeline to rapidly close, assemble, employ, sustain, and reconstitute joint forces.

(4) Seabasing is a transformational joint concept that provides a means to achieve strategic military goals. Our national leaders will use seabasing as a strategic enabler combining the aspects of forward presence and engagement with the capability to rapidly deploy and employ forces to meet the future security challenges presented by traditional, disruptive, catastrophic, and irregular threats during full spectrum operations. As an operational enabler, seabasing exploits the maneuver space and sovereignty of the sea to provide the CCDRs with greater operational independence. Additionally, it provides the JFC with a scalable and mobile capability in the JOA from which to exercise C2 and provide strike, power projection, fire support, and logistics capabilities from the sea where and when needed. A sea base can be as small as one ship, or it can expand to consist of dozens of ships and this scalability minimizes the need to place vulnerable assets ashore during the operation. Finally, the Seabasing JIC is interdependent with emerging joint and Service concepts and complements the integrated global presence and basing strategy.

2-2. Operational Environment

a. The Changing Operational Environment (OE)

(1) In the next few decades the U.S. will confront unstable, sometimes diverse, and highly uncertain geopolitical alignments that will generate major changes in adversaries' intent, force array, and strength. There will be increased global and regional interest in local matters that will place increased value in alliances and coalitions. Also, potential adversaries will apply lessons learned based on their study of U.S. methods from recent operations as well as the successes and tactics of other nations and insurgent groups. New threats may emerge from aspiring great powers, new regional alignments, or transnational insurgents or criminal organizations.

(2) The physical characteristics of a future theater of war also are likely to provide a more challenging OE than joint forces have previously had to face. Continuing global urbanization increases the probability that U.S. forces will confront complex topography, even where nature itself does not impose it. Early entry operations, support systems, and facilities will be more vulnerable to direct attack because of the proliferation of hostile communications; sensor, missile, and night vision capabilities; precision and kinetic energy munitions; special operations forces (SOF); and insurgent capabilities, together with a growing threat of WMD and WMDE use. These threats may even dictate that combat forces avoid prolonged occupation of detectable and targetable locations. Additionally, as the global political situation becomes more diverse and complicated the U.S. will continue to face problem of political anti-access and area denial as was seen during Operation Iraqi Freedom (OIF) with Turkey. This presents a very real and difficult problem, as in the future the U.S. will likely see increased tension between first world nation states over scarce resources (oil, water, food) that could lead to potential conflict.

b. The Sea Base OE

(1) Since non-state threats are generally able to thrive in under-governed areas, joint U.S. military and civilian agency forces are likely to operate in and around such regions, often in conjunction with multinational allied forces. Current examples include the Afghanistan–

Pakistan border; the Iraq–Syria border; Chad; the Gulf of Guinea; the Horn of Africa; and portions of Southeast Asia and South America. During the past quarter century, the U.S. has conducted more than 76 operations across the spectrum of conflict within these unstable areas which lie largely in littoral—coastal regions subject to maritime power and influence. The Army can anticipate that the CCDR will increasingly employ joint forces in conjunction with operations in those areas of the world where U.S. security and economic interests are concentrated. This approach will aim to forestall security challenges through proactive engagement in these focus areas.

(2) The growing trend of violent, transnational extremism is the most prevalent destabilization factor in a significant portion of these areas. In addition to ethnic and religious intolerance, many of these developing regions are also troubled with economic challenges and infectious diseases. Collectively, these problems are especially severe in the densely populated urban centers so common to the world's littorals, resulting in discontented populations ripe for exploitation by extremist ideologues as well as international criminal networks. These transnational threats extend their reach by using navigable waterways as the means to smuggle hazardous cargoes, conduct human trafficking, perpetrate acts of piracy, and disrupt the flow of international commerce. The potential impact of such threats on world peace and the global economy is enormous.

(3) The significance of securing the maritime domain cannot be overstated. Salt water covers more than two-thirds of the earth's surface and more than 90 percent of the world's trade travels by water, largely via a network of 30 megaports. It is estimated that more than 75 percent of the world's population and 80 percent of the capital cities are located in the littorals. Waterways may serve as either a conduit or barrier for our adversaries.

(4) These adversaries will likely employ a variety of means against us. Among them, terrorism, weapons of mass destruction, major combat operations, and IO impose the greatest concern. Decentralized, self-reliant, innovative, and networked groups will employ terrorism to threaten U.S. interests at home and abroad. The continued proliferation of nuclear weapons and other WMD and WMDE increases the likelihood of extremist groups obtaining and using catastrophic capabilities. While the U.S. is oriented on countering these non-traditional challenges, other nations may be emboldened to pursue regional, or even global, objectives through MCO.

(5) Whether perpetrated by extremist ideologues, criminal elements, or nation states, these acts of aggression will likely be employed to generate protracted conflict aimed at eroding U.S. resolve. IO to include propaganda, media manipulation, and attacks on information systems in order to undermine U.S. credibility and determination while promoting their own will compliment acts of aggression.

c. Areas of the Sea

(1) In the future the JFC will increasingly use the sea as an additional maneuver option to position forces to areas of advantage. Thus, for the purpose of this concept the sea has been divided into three different operational areas; littorals, near-shore (less than 25 miles), and over the horizon (25 or more miles) and is depicted in figure 2-2.

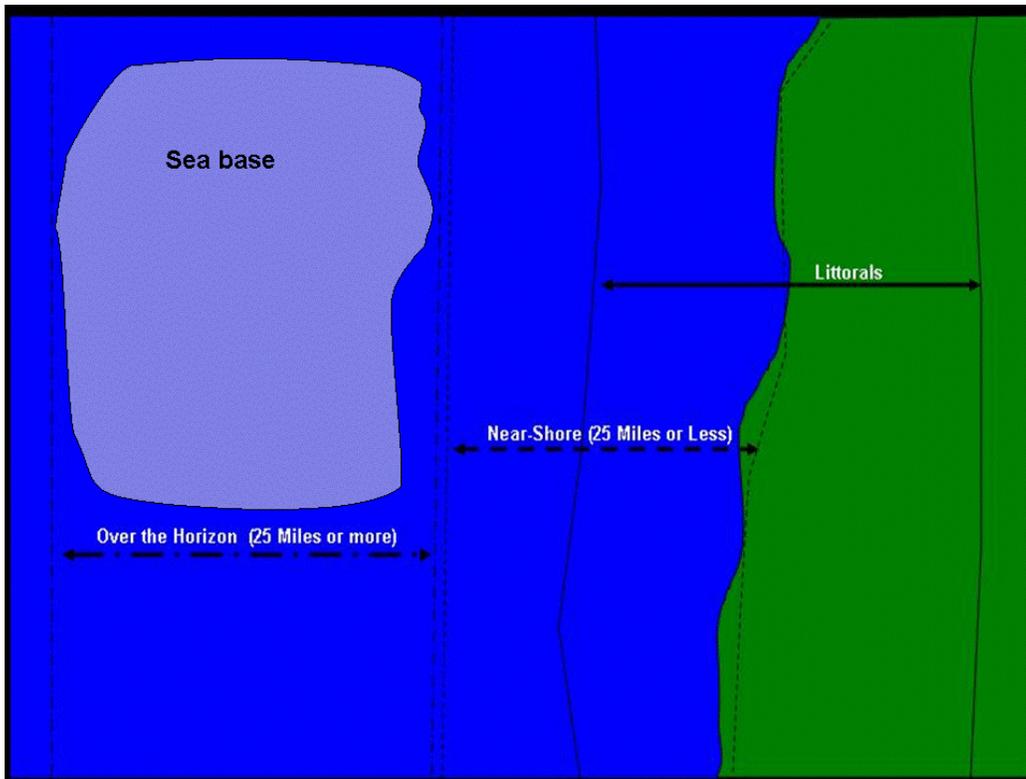


Figure 2-2. Areas of the Sea

(2) Littorals. Conceptually, the littoral is comprised of two segments. The seaward portion is that area from the open ocean to the shore that must be controlled to support operations ashore. The landward portion is the area inland from the shore over which friendly forces can be supported and defended directly from the sea.

(3) Near shore. This is generally defined as the operating area that can still effectively employ conventional naval gunfire and is usually from the shore to 25 miles out to sea. However, when operating at this distance there are several disadvantages such as; less time for ships to react to air launched cruise missiles; increased vulnerability to deep and shallow water mines; and increased vulnerability to shore-based direct and indirect fire.

(4) Over the horizon. This is generally defined as the operating area that is outside most enemy shore-based direct and indirect fire capabilities and is usually 25 miles or more off shore. When operating at this distance, the force has several advantages including increased time available for the ship to react to air launched cruise missiles, reduced vulnerability to deep and shallow water mines, reduced ship vulnerability to shore-based direct and indirect fire weapons, increased capability to conduct feints; ability to attack at the time and place of their own choosing, the ability to cause the enemy to widely disperse his defenses, and access to more of the littoral due to increased standoff range.

d. Threats to Seabasing Operations

(1) Obstacles and mines. Principally a shallow water threat (less than 100 fathoms). Few nations have effective deep water mining capabilities. Thus water deeper than 200 meters (109.36 fathoms) can be assumed to be a sanctuary for a joint sea base. However, in many parts of the world such water depths occur far from shore (for example, most of the Persian Gulf is shallower than 100 fathoms). For a sea base to be positioned inside the 100 fathom line, a very large area must be cleared, and it must be done to a high degree of certainty. Current mine clearing capability in water depths between 100 fathoms and 10 fathoms, although very sure, is slow. Clearing an area of sufficient size to provide adequate maneuver space for a sea base will take many days to perhaps weeks. While the likelihood of having to clear an area for an entire sea base may be small, it is likely that lanes will have to be cleared for lighterage to operate between the sea base and the high water mark. Clearing obstacles and mines in the surf zone is a difficult problem; the Navy's capabilities in this area are limited. In the seabasing context, mine clearance will be urgent; lanes will have to be cleared in no more than one day. This will require new methods. Development of shallow water mine clearance methods must be supported. Designs of both heavy-lift aircraft and watercraft should incorporate mine countermeasure features. Additionally, prepositioned Army tugboats, lighterage, and cranes (barge, derrick) may provide an early means of obstacle removal (not including mines) by clearing sea lanes, surf zones, ports, and waterways for strategic, operational, and tactical vessel operations.

(2) Sea skimming cruise missiles. Sea skimming missiles have two major advantages as defensive weapons; they can be hidden in commercial buildings, mounted on flatbed trucks, or deployed aboard small ships, and they are fairly lightweight. The range at which they can be detected by their target is limited by the height of the target's radar (the current detection range of a masthead radar is 15 miles which gives at most a 45 second warning). Currently there are no acceptable solutions to sea skimming missile detection except to employ search radar orbiting at high altitude (the horizon range at 25,000 feet is just under 200 miles) and to place ships beyond the range of the missiles. Moving the ships well offshore reduces the clutter background against which the search radars must operate, but it compounds the difficulty to support forces ashore.

(3) Submarine threats. If an enemy has a submarine capability, it constitutes a serious threat to a sea base; a well-trained crew operating a modern quiet submarine in their home shallow waters cannot be easily found. But maintaining a competent submarine force is beyond the reach of all but a few nations, and is therefore an exceptional problem. The surest countermeasure is to track enemy submarine whereabouts and preemptively destroy them at their piers.

(4) High speed small boats. The high-speed small boat threat is deemed to be of a minor importance because surveillance radar is needed for many purposes and weapons systems exist that can destroy these targets. One of the principal capabilities of the new littoral combat ship (LCS) will be to counter such threats.

(5) Shore based defenses. Finding and destroying shore-based defenses will be difficult and may need to be accomplished on the ground. Thus, there needs to be a capability to deliver

light forces via vertical or surface maneuver that can attack these shore defenses to ensure the successful movement of heavy equipment and sustainment by surface means. Additionally, the U.S. needs to develop new technologies and capabilities that can assist in the detection and destruction of these shore-based defenses from standoff distances.

(6) Aircraft threat. Enemy aircraft also present a significant threat to the sea base; well-trained pilots operating from air bases close to the shore will be able to attack a sea base that is operating within 100 miles of the shore within minutes. Thus, when required, a sea shield needs to be integrated for air defense of aircraft, missile, and conventional weapons to counter this threat.

(7) Suicide attacks. This threat will be a constant even in areas that may be deemed less permissive. Thus, the sea base needs to ensure that its integrated defensive posture is maintained regardless of the threat level.

(8) SS and weather. Severe sea conditions brought on by extreme weather or natural events also pose a significant risk to sea base operations. According to the Seabasing JIC, future sea base systems must be able to operate in this extreme environment (up to SS 4) to mitigate the effects of high SSs and bad weather on the sea base operation.

2-3. Joint Interdependence

a. The synchronized employment of land, air, sea, space, and SOF provides the commander with the widest range of strategic, operational, and tactical options. Given the complexity of expeditionary operations, such synchronization will need to have joint interdependency between the Services and other agencies to maximize the effectiveness of the joint force, while minimizing its vulnerabilities. Interdependence reduces unnecessary redundancy without reducing effectiveness. Commitment to joint interdependency must be preceded with a prerequisite understanding of the differing strengths and limitations of each Service's capabilities, clear agreement about how those capabilities will be integrated in any given operational setting and above all, absolute mutual trust that, once committed, they will be employed as agreed.

b. Reliance on interdependent capabilities could deprive future warfighters of necessary capabilities for success in combat if taken too far. Therefore, force development and employment decisions must emphasize effectiveness over efficiency. However, conducting integrated and interdependent actions is a necessary adaptation to the complexity of the OE. It is intended to fully leverage joint force capabilities to realize the synergy necessary to effectively counter multiple threats and challenges across the spectrum of operations conducted simultaneously around the world. This idea explicitly recognizes there may be capability shortages within any one domain that can be offset through the integrated and interdependent application of capabilities resident in other domains. Applying this idea will enhance joint force agility and speed of action, and enhance joint force capacity to deter, prevent, and defeat the challenges posited for the future operating environment. Key functional areas for increased interdependence include joint fires, force projection, sustainment, battle command, and AMD.

The Army capstone, operational, and functional concepts recognize and address these dependencies.

c. Seabasing operations are inherently joint and joint interdependence is essential for the conduct of all sea base operations. This interdependence is even more complex in that it extends beyond the traditional Service capabilities to DOD organizations, such as the Defense Logistics Agency (DLA) and U.S. Transportation Command (USTRANSCOM), as well those from the Department of Homeland Security (such as the U.S. Coast Guard) and Department of State. It is critical that the subject matter expertise, roles, and unique capabilities provided by each Service, agency, and branch of the federal government or proponent be leveraged in the conduct of day-to-day operations to coordinate joint theater operations and integrate space capabilities. Seabasing operations support and architectures must remain flexible and responsive to meet the needs of the JFC. Key joint interdependencies and capabilities are identified in subsequent paragraphs.

d. The Department of the Navy, through Navy forces, supports the geographical combatant commander (GCC) or combined joint force commander (CJFC) under their Title 10 United States Code role to organize, train, and equip forces. Additionally, under the Navy's vision concepts, Naval Power 21 and Sea Power 21; and the Naval Operating Concept, the Navy will provide maritime support as outlined in its three operating concepts; sea strike, sea shield, and sea basing. A full description of these operating concepts as defined by the Navy Warfare Development Command is in appendix F.

(1) Sea Strike

(a) Sea strike operations are how the Navy and joint forces will exert direct, decisive, and sustained influence in joint campaigns. They will involve the dynamic application of persistent intelligence, surveillance, and reconnaissance; time-sensitive strike; ship-to-objective maneuver; IO; and covert strike to deliver devastating power and accuracy in future campaigns.

(b) Sea strike capabilities include intelligence, surveillance, and reconnaissance (ISR) capabilities to support forces at sea and ashore, fixed and rotary wing air strikes to provide close air support to ground forces, sea base naval fires and missile strikes in support of ground forces, electronic warfare and IO to support ground operations, operational maneuver of ground forces by surface, air and subsurface, and covert strike through the employment of SOF.

(2) Sea Shield

(a) Sea shield describes how national interests can be protected with layered global defensive power based on control of the seas, forward presence, and networked intelligence. It will use these strengths to assure access to contested littorals. Perhaps the most dramatic advancement will be the ability of Navy forces to project defensive power deep overland, protecting territory of allied countries and joint forces ashore. The foundation of these integrated operations will be information superiority, total force networking, and an agile and flexible sea based force.

(b) Sea shield capabilities include sea and littoral superiority through the use of naval fires, missile support and close air support, mine clearing and mine countermeasure support, underwater security and protection operations against submarine and diver attacks, integrated surface protection operations against all surface threats, coastal warfare operations to ensure safe operations of forces transiting from the sea base to austere or fixed ports in the JOA, integrated theater air and missile defense (TAMD) of the sea base and forces operating ashore, and force entry enabling through the use of surface and air capabilities.

(3) Seabasing

(a) The sea base serves as the foundation from which offensive and defensive fires are projected making sea strike and sea shield realities. Sea based capabilities will provide the CJFCs with global C2 and extend integrated logistical support to the joint forces while enabling operations in anti-access and area denial environments. Afloat positioning of these capabilities strengthens force protection by minimizing the logistical footprint ashore and frees airlift-sealift to support distributed missions through austere airfields and seaports.

(b) Netted and dispersed sea bases will consist of numerous platforms, including nuclear-powered aircraft carriers, multi-mission destroyers, submarines with SOF, logistic support vessels, inter- and intratheater connectors, and maritime prepositioned ships, providing greatly expanded power to joint operations. Sea based platforms will also enhance coalition-building efforts, sharing their information and combat effectiveness with other nations in times of crisis.

(c) Seabasing accelerates expeditionary deployment and employment timelines by prepositioning vital equipment and supplies allowing the U.S to take swift and decisive action during crises. Strategic sealift will be central to this effort. Moreover, prepositioned ships with at-sea accessible cargo will be built and will await closure of troops by way of high-speed sealift and airlift.

(d) Sea base capabilities include enhanced afloat positioning of joint assets, offensive and defensive power projection, C2 of forces operating at sea and ashore, integrated joint logistics by air and surface from the sea base to fixed or austere airfields and seaports in the JOA, and accelerated deployment and employment timelines while reducing or eliminating the need for extensive RSO&I.

e. U.S. Marine Corps

(1) The Department of the Navy, through the U.S. Marine Corp, supports the GCC or CJFC under their Title 10 United States Code responsibilities to organize, train, and equip forces that provide forward presence with the ability to conduct counterterrorism, crisis response, forcible entry, counterinsurgency, and prolonged operations enabled by seabasing. It provides the CCDRs with scalable, sustainable, interoperable, expeditionary, combined arms, Marine air-ground task forces ready to fight and shape the international security environment across the complex spectrum of crises and conflict. Additionally, the U.S. Marine Corps provides a wide range of seabasing capabilities that included forward and prepositioned forces and sea based combat, aviation and logistic forces.

(2) Capabilities provided include strategic response and operational reach, sea based and integrated amphibious, land, and air forces; sea based C2 system, sea based organic ISR capability linked to national and theater agencies, responsive, integrated, and balanced expeditionary fires (surveillance, target acquisition, aviation both fixed and rotary, indirect fires and naval fire support, ship-to-objective surface and limited air maneuver capabilities, and sea based logistic support to forces operating at sea and ashore).

f. The Department of the Air Force supports the GCC or CJFC under their Title 10 United States Code role to organize, train, and equip forces. The U.S. Air Force will enable joint operations through a combination of several operating concepts that will directly support sea based operations and include; global mobility, global persistent attack, global strike, and space information systems ISR support.

(1) Global mobility provides the rapid, timely, and effective projection, employment, and sustainment of U.S. power through air and space mobility, global C2, and expeditionary air bases.

(2) Global persistent attack is the concept of conducting and sustaining enduring combat operations to achieve campaign objective with minimal loss through information dominance, freedom of maneuver, and persistent force application.

(3) Global strike enables the attack of key targets anywhere on the globe on short notice and neutralization of adversary anti-access systems to pave the way for follow-on persistent forces under the global persistent attack CONOPS.

(4) Space and information systems. ISR provides predictive battle space awareness, facilitates and conducts precision attack, compresses the sensor-to-shooter kill chain, and delivers decision dominance to support joint and combined operations at all levels of conflict.

(5) Capabilities provided include real-time picture of the OE, predictive OE awareness, denial of effective information systems ISR to the adversaries via effective IO, and penetration of advance enemy air defense to clear the path for follow-on joint forces. They also include effective and persistent air, space, and IO, protection and survivability of vital space assets, negation of adversary's access to space services, detection of ballistic and cruise missile launches and destruction of those missiles, precision engagement of high value targets and high payoff targets. Other capabilities include rapid and precise attack of any target on the globe with persistent effects, rapid establishment of air operations, an air bridge, and movement of military capability in support of operations anywhere in the world under any conditions, responsive space capabilities, and responsive, persistent, and effective combat operations and support.

g. Army Forces

(1) The DA supports the GCC or CJFC under their Title 10 United States Code role to organize, train, and equip forces. The Army has historically come from the sea whether through strategic ships or through amphibious operations. At present, the Army has the ability to sea base select forces as was done during recent operations in Operation Enduring Freedom. Thus,

currently the Army has forces that have the ability to operate for a limited time from sea platforms and include command and control headquarters, light combat, aviation and logistic forces. Additionally, the Army currently has some resources such as forward stationed forces, watercraft, lighterage, JLOTS capabilities, as well as port and air terminal units that could operate within the sea base or on sea based platforms in a limited capability. Capabilities provided include a sea based C2 system, responsive, integrated, aerial fires (aviation surveillance, reconnaissance and target acquisition), ship-to-shore surface maneuver capabilities, limited ship-to-objective air maneuver capabilities, limited sea based logistic support to forces operating at sea and ashore. They also include surface connectors (logistic support vessel (LSV), landing craft utility (LCU), landing craft mechanized (LCM)), JLOTS capabilities (causeways, tug boats, floating cranes), and inland waterway capabilities (barges).

(2) Army Materiel Command. Army Materiel Command is responsible for materiel readiness, to include technology, acquisition support, materiel development, logistics power projection, and sustainment. It operates the research, development and engineering centers, Army Research Laboratory, depots, arsenals, ammunition plants, and other facilities, and maintains the Army's prepositioned stocks program, both on land and afloat. However, once activated and in theater; any potential afloat supply activity and a theater aviation sustainment maintenance capability asset would be operated by the theater commander.

(a) Army prepositioned stocks (APS) and Army strategic flotilla (ASF). APS provide both strategic and operational flexibility and responsiveness. They provide a mix of capabilities that allows the GCCs the ability to respond to the full range of contingencies. Equipment sets, both ashore and afloat, will be both modern and modular to allow use within the Army Forces Generation configuration and allow interface with current and future lift platforms and improve access globally.

(b) Supply support activity (SSA) afloat. The SSA afloat is an emerging concept based on development of a sea based platform used to sustain troops on the ground. The SSA afloat would provide immediate supplies for early entry forces. Under the concept, ships will, provide support for any variation of an Army brigade combat team (BCT). The current concept is to have all materials and supplies containerized and this capability would need to be off loaded and would act as a ground based SSA. Currently there would not be a capability to conduct selective off-load, but this could be a potential area to research to provide future flexibility to joint forces during early entry operations.

(c) Theater aviation sustainment maintenance capability (TASMC). The TASMC enables continuous logistics support and improves aircraft operational readiness by conducting aviation sustainment maintenance forward and reducing the logistics tail. Additionally, the TASMC vessel provides dedicated deployment prioritization with no impact on other strategic lift assets. The TASMC will provide limited aviation maintenance capability, supply and ancillary support (aviation ground support equipment; aircraft life support equipment; test, measurement, and diagnostic equipment; oil analysis) for the repair of components in support of the national maintenance program while sea or land based. Currently there is no dedicated ship proposed for this capability.

(3) Army Watercraft Units

(a) Army watercraft units provide the foundation for theater opening and reception, and sustainment of joint and Army forces when projecting and sustaining combat power in an anti-access or area denial environment. Army watercraft, provide the critical link between off-shore arrival of combat power loaded aboard strategic sealift ships and placing that power ashore in a ready to fight configuration through fixed ports not accessible to deep-draft vessels, through austere ports or over the bare beach via JLOTS operations. Water transport, which includes inter- and intratheater high-speed sealift and the support provided by Army watercraft, are essential to projecting and sustaining forces engaged in full spectrum operations.

(b) Army watercraft capabilities include ship-to-shore movement of cargo and lighterage control, lighterage C2, movement of sustainment cargo within a theater of operations, movement of containers and outsized cargo, and coastal and ocean towing. They also include docking and undocking operations of large ocean vessels, transporting and repositioning cargo and fuel barges and lighterages of various types in harbors, ports, via inland waterways and along coastlines, port clearance and salvage missions, and heavy lift operations.

(4) Terminal Battalions

(a) Army terminal units conduct multi-modal transportation operations in support of the RSO&I of joint and combined forces into a theater of operations. They are capable of operating common-user seaports and inland waterways terminals.

(b) Terminal battalion capabilities include limited beach and port preparation and improvement, cargo discharge and upload operations, harbor craft services, heavy lift services, beach and port clearance C2, and cargo documentation for RSO&I of personnel, equipment, and supplies to provide ITV.

h. Other Agencies

(1) DLA. As an essential member of the joint force, movement-related elements (DLA deployable depot and afloat prepositioned stocks) of DLA contribute to the movement of sustainment. The DLA also plays a major role in the sourcing, packaging, and preparation of sustainment stocks and prepositioned material to be moved through the distribution pipeline. The DLA also coordinates for direct vendor delivery of many commodities to include; class I, general supplies, fuel, and common repair parts support.

(2) U.S. Coast Guard. The U.S. Coast Guard falls under the operational command of the Department of the Navy during times of war and the Department of Homeland Security during peacetime. They will provide port security units and maritime safety and security teams to provide security of fixed or austere seaports as forces and equipment are moved from the sea base to the shore.

(a) Port security units. Port security units are elite deployable units organized for sustained force protection operations. They provide waterside protection to key assets (such as, pier areas, high value vessels, and harbor entrances) at the termination and origination point of

the sea lines of communication and operate as part of a naval coastal warfare squadron within the naval coastal warfare group of the Navy Expeditionary Combat Command. Port security units often operate with other Navy Expeditionary Combat Command organizations such as the maritime expeditionary security force and the explosive ordnance groups.

(b) Maritime safety and security teams. These teams are harbor and inshore patrol and security teams that can detect and if necessary stop submerged divers, using the Underwater Port Security System. They provide waterborne and a modest level of shore side antiterrorism force protection for strategic shipping, high interest vessels, and critical infrastructure. They also provide a complementary non-redundant capability designed to close critical security gaps in U.S. strategic seaports. These teams support naval coastal warfare requirements in accordance with long standing agreements with DOD and the GCC (protect strategic shipping, major naval combatants, and critical infrastructure at home and abroad). Their capabilities include maritime interdiction and law enforcement; anti-terrorism and force protection; chemical, biological, radiological, nuclear and high-yield explosives detection; vertical insertion, limited search and rescue; port protection and anti-sabotage; underwater port security; canine handling teams (explosives detection); tactical boat operations; and non-permissive boarding capability.

(3) Office of the Secretary of State and Office of the Coordinator for Reconstruction and Stabilization. Their mission is to lead, coordinate, and institutionalize U.S. government civilian capacity to prevent or prepare for post-conflict situations, and to help stabilize and reconstruct societies in transition from conflict or civil strife, so they can reach a sustainable path toward peace, democracy and a market economy. They will employ country reconstruction and stabilization groups, civil-military planning teams, and advance civilian teams to assist the JFC with stabilization and reconstruction planning.

(4) U.S. Agency for International Development. This is an independent federal government agency that receives overall foreign policy guidance from the Secretary of State. Their mission is to support long-term and equitable economic growth and advances in U.S. foreign policy objectives by supporting economic growth, agriculture, trade, global health, democracy, conflict prevention, and humanitarian assistance.

(5) USTRANSCOM

(a) As the DOD distribution process owner, USTRANSCOM coordinates and synchronizes the deployment and redeployment of forces by providing high-speed strategic air and sea lift, transportation and ancillary distribution capabilities necessary to deliver force and sustainment capabilities to the supported GCC or CJFC. USTRANSCOM is a supporting commander to the GCC or CJFC and other joint force customers. In this capacity, USTRANSCOM leverages the Defense Transportation System and commercial transportation industry to execute movement of forces and sustainment.

(b) USTRANSCOM capabilities include force projection, reduce deployment closure timelines, deployment and redeployment support of forces, from deployment support brigades through the Surface Deployment and Distribution Command. Surface Deployment and Distribution Command mission is to provide global surface deployment and distribution services

to meet the Nation's objectives. More capabilities include sea terminal coordination and support for rapid employment of forces from the sea base to fixed or austere sea ports through Surface Deployment and Distribution Command and Military Sealift Command. Military Sealift Command mission is to provide ocean transportation of equipment, fuel, supplies, and ammunition to sustain U.S. forces worldwide during peacetime and in war for as long as operational requirements dictate. Further capabilities include air terminal coordination and support for rapid deployment of forces from the CONUS, OCONUS, AB, and the sea base to austere APODs through the joint task force (JTF) port opening capability (to rapidly establish and initially operate ports of debarkation, establish a distribution node and facilitate port throughput within a theater of operations) under the Air Mobility Command. Air Mobility Command mission is to deliver maximum war-fighting and humanitarian effects for America through rapid and precise global air mobility. Other capabilities include rail and highway movement coordination and support in CONUS to reduce deployment closure timelines, deployment movement and ITV, TAV through out the deployment and employment of forces from, to, or through the sea base.

(6) U.S. Joint Forces Command (JFCOM). As the defense deployment process owner, JFCOM, coordinates with the supported GCC or CJFC and the Services to source and make ready the joint forces for handoff to the deployment and employment processes. JFCOM is a supporting commander to the GCC or CJFC, while a supported organization of the deployment process. Capabilities include force integration and Service coordination.

i. Multinational allies and partners. Multinational allies and partners can additionally provide extensive support to seabasing operations through their military or civilian and governmental agencies. Their respective military services, civilian and governmental agencies provide similar or complementary support as that provided by our military services, civilian and governmental agencies.

2-4. The Central Idea

a. Introduction. The need for military access to retain global freedom of action is a consistent theme throughout the national, strategic, joint, and Army concepts. In order to swiftly defeat adversaries, the U.S must develop and maintain a joint force with attributes of speed, agility, and superior war fighting ability. The U.S. must possess sufficiently robust strategic and tactical lift systems to be capable of conducting multiple, simultaneous operations in an ever increasing political and military, and sometimes physical (hurricane relief) anti-access and area denial environment.

b. The Army looks to seabasing as one of the means by which it exploits multiple entry points, avoids operational pauses, projects forces to positions of advantage, and improves its strategic responsiveness and agility thereby providing a critical enabler of operational maneuver from strategic distances. Moreover, the Army recognizes the relevance of seabasing across the full spectrum of operations. Seven key points frame the Army's strong interest in and perspective on joint seabasing and they are discussed below.

(1) The Army recognizes the many advantages that joint seabasing can provide to the future joint force with respect to improvements in strategic responsiveness. Additionally, it provides higher levels of operational agility, in terms of both maneuver and sustainment, required by the joint force for effective campaigns in future conflicts.

(2) Joint seabasing presents additional options for the Army to deal with some of the significant force projection and sustainment challenges facing ground forces. Thus, the significance of joint seabasing is most acute with respect to its applicability to crises or conflicts in which access to the theater is challenged by geographic, political, or enemy factors.

(3) To this point, joint seabasing has been examined largely in isolation, rather than as an integral component of the overall force projection system. Comprehensive Army work in this area strongly supports that joint seabasing is best viewed from a more holistic perspective, with full visibility of other means of projecting forces by ground, air, and sea, in order to judge its relative merits against other capabilities. In addition, the employment of joint seabasing capabilities to establish maritime access is potentially its most important contribution to future campaigns, yet this aspect of joint seabasing has not yet been fully explored.

(4) Investigations of joint seabasing have been restricted thus far to the opening phase of a joint campaign. Thus, those investigations need to be expanded to explore the continuing applicability of joint seabasing as conditions and requirements change throughout the course of an entire campaign to include the possibility of entirely conducting and winning a campaign through seabasing.

(5) The costs and benefits of joint seabasing must be compared against the costs and benefits of other capabilities that can also address force projection and sustainment requirements and mitigate anti-access challenges, particularly capabilities such as austere access joint high speed sealift (JHSS) and heavy lift vertical takeoff and landing or large short takeoff and landing aircraft. An example of cost is a single maritime prepositioning force (future) (MPF(F)) squadron, which the Navy considers to be a key pillar in the development of seabasing capabilities, is projected at \$14 to 17 billion. The operational significance of MPF(F), thus, should be compared with other programs to determine which capabilities contribute the most to meeting the operational requirements of future joint campaigns.

(6) Joint collaboration must underwrite the development of joint seabasing. Over the past two years, joint collaboration has improved considerably.

(7) One key question provides the fundamental context for the Army perspective on joint seabasing: “**What does the JFC expect from seabasing?**” This question forms both the start point and the foundation for professional discussions about seabasing and for measuring its contributions to future operations.

d. Seabasing principles from the Seabasing JIC. In developing the JIC on seabasing, a set of principles were developed as required elements that the sea base must provide to joint operations. These seven overarching principles lay the foundation of how a sea base will be

leveraged to support the future joint operating environment. These overarching principles are defined below.

(1) Use the sea as maneuver space. Seabasing exploits the freedom of the high seas to conduct operational maneuver in the maritime (to include littoral) environment relatively unconstrained by political and diplomatic restrictions, for rapid deployment and immediate employment. Sea based operations provide CJFCs with an operational flexibility to support the immediate deployment, employment, and sustainment of forces across the extended depth and breadth of the OE.

(2) Leverage forward presence and joint interdependence. Joint forces operating from the sea base, in conjunction with other globally based joint forces, provide the CJFC on-scene, credible offensive and defensive capability during the early stages of a crisis. Combined with other elements of this joint interdependent force, forward deployed joint forces can help to deter or preclude a crisis or enable the subsequent introduction of additional forces, equipment, and sustainment.

(3) Protect joint force operations. Seabasing provides a large measure of inherent force protection derived from its freedom of operational maneuver in a maritime environment. The combined capabilities of joint platforms in multiple mediums (surface, sub-surface, and air) provide the joint forces a defensive shield both at sea and ashore. The integration of these capabilities and freedom of maneuver effectively degrades the enemy's ability to successfully target and engage friendly forces while facilitating joint force deployment, employment, and sustainment.

(4) Provide scalable, responsive joint power projection. Forces rapidly closing the sea base by multidimensional means (air, surface, and subsurface) give the CJFC the ability to rapidly scale and tailor forces and capabilities to the mission. Seabasing provides an option to the CJFC to mass, disperse, or project joint combat power throughout the OE at the desired time to influence, deter, contain, or defeat an adversary.

(5) Sustain joint force operations from the sea. Sea based logistics entails sustaining forces through an increasingly anticipatory and responsive logistics system to support forces afloat and select joint and multi-national forces operating ashore. The sea base is sustained through the interface with support bases and strategic logistics pipelines enabling joint forces to remain on station, where needed, for extended periods of time. Seabasing uses selective off-load to assemble and deliver tailored sustainment packages directly to joint forces operating ashore.

(6) Expand access options and reduce dependence on land bases. Seabasing integrates global and sea based power projection capabilities to provide the CJFC with multiple access options to complement forward basing in the JOA, and reduces reliance on forward basing when the security environment dictates. This includes theater access capabilities at improved and unimproved ports and airfields.

(7) Create uncertainty for adversaries. Seabasing places an adversary in a dilemma through the conduct of dispersed and distributed operations. The options of multiple points and

means of entry require an adversary to either disperse or concentrate his forces, creating opportunities to exploit seams and gaps in defenses.

e. Seabasing logistics enabling concept cites seabasing principles provide a basis of how joint forces will be integrated in the future and allow the JFC the ability to maintain operational speed, gain access, and maintain sustained persistence, see figure 2-3.



Figure 2-3. Seabasing Logistics Enabling Principles

f. TRADOC Pam 525-3-0 The Army future Modular Force will be a strategically responsive, campaign quality force, dominant across the spectrum of operations and fully integrated within the JIIM security framework. It will provide sustained land combat power to future joint operations, responding effectively and seamlessly to any conflict, regardless of character or scale. TRADOC Pam 525-3-0 cites the full spectrum quality of the future Modular Force will address the diverse threats and the volatile conditions expected to characterize the future operating environment through the adaptive combination of seven key operational ideas. Additionally, the Army capstone key operational ideas can be linked directly to the seabasing principles and together they provide a foundation for future conceptual work as cited in figure 2-4.

Army Capstone links with Seabasing Concept

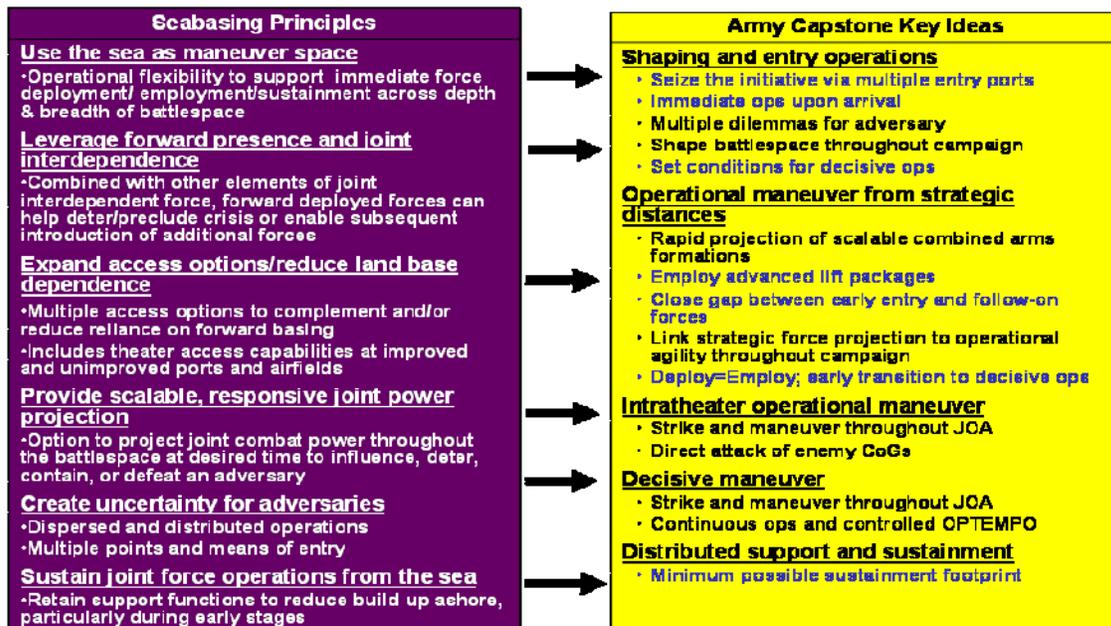


Figure 2-4. Conceptual Links

(1) Shaping and entry operations shape regional security conditions and, if forces are committed, shape the area of operations, set conditions for decisive maneuver, and seize the initiative, throughout the entire campaign. Use of multiple entry points will help overcome enemy anti-access actions, enhance surprise, reduce predictability, and through the conduct of immediate operations after arrival produce multiple dilemmas for the enemy.

(2) Operational maneuver from strategic distances to a crisis theater will enable the force to deter or promptly engage an enemy from positions of advantage. Employing advanced joint lift platforms not dependent on improved ports, the future Modular Force will deploy modular, scalable, combined arms formations in mission-tailored force capability packages, along simultaneous force flows, to increase deployment momentum and close the gap between early entry and follow-on campaign forces.

(3) Intratheater operational maneuver by ground, sea, and air will extend the reach of the CJFC, expand capability to exploit opportunities, and generate dislocating and disintegrating effects.

(4) Once the initiative is seized, the future Modular Force combines its multidimensional capabilities in decisive maneuver to achieve campaign objectives. These objectives are below.

(a) Simultaneous, distributed operations within noncontiguous area of operations enable the future Modular Force to act throughout the enemy's dispositions.

(b) Continuous operations and controlled operational tempo will overwhelm the enemy's capability to respond effectively, resulting in physical destruction and psychological exhaustion at a pace not achievable today.

(c) Direct attack of key enemy capabilities and centers of gravity with strike and maneuver will accelerate the disintegration of the enemy operational integrity.

(5) The future Modular Force also conducts concurrent and subsequent stability operations, the former to secure and perpetuate the results of decisive maneuver during the campaign, and the latter to maintain stability, once enemy military forces are defeated, to ensure long-term resolution of the sources of conflict.

(6) Distributed support and sustainment will maintain freedom of action and provide continuous sustainment of committed forces in all phases of the operation, throughout the OE, and with the smallest feasible deployed logistical footprint.

g. Conceptual seabasing overview. The future is full of uncertainty and nation states, extremist, and insurgents will continually challenge the U.S. To counter this emerging and growing threat the Army must be able to operate effectively across the full spectrum of operations from the strategic to the tactical level. This will require significant changes in many current Army concepts. The Army will need to ensure that forces are flexible, able to conduct expeditionary warfare, are rapidly employable, and able to dominate the battle field of the future. Thus, the Army needs to look across the phases of joint operations to ensure strategies exist across all the DOTMLPF domains.

h. Army future Modular Force seabasing operations will be built upon two basic tenets; joint interdependence and a layered infrastructure. Sea base operations and capabilities are inextricably linked with, and dependent upon, a supporting joint infrastructure. Individual Services, National agencies and a growing number of commercial enterprises will each continue to play major roles in providing seabasing support to the warfighter.

i. Also, in order to achieve a flexible, robust Army future Modular Force capable of operating in a maritime environment and operating from a joint sea base will require changes within the DOTMLPF paradigm. These changes will ensure a force that is able to meet the challenging future and ensure success. A more in-depth listing and discussion of DOTMLPF implications is in chapter 6.

2-5. Operational Vignettes

a. Army operations within a joint campaign framework. Joint Publication (JP) 3-0 specifies six phases: shape, deter, seize the initiative, dominate, stabilize, and enable civil authority. TRADOC Pam 525-3-0, which predates this new phase titling, uses four phases: prepare and posture, shape and enter, conduct decisive operations, and transition. For concept purposes, the prepare and posture phase encompasses the two distinct joint phases of shape and deter. Similarly, the Army shape and enter phase includes elements of the joint shape and seize the initiative phases. The Army conduct decisive operations phase includes the joint seize the

initiative phase and parts of dominate, stabilize, and enable civil authority. Transition, as used in the Army capstone concept, overlaps the joint phases of dominate, stabilize, and enable civil authority.

b. The Army future Modular Force will conduct operations fully integrated within the joint operational or campaign framework during full spectrum operations. Army operations will enable the CJFC to seize the initiative early, transition rapidly to decisive operations, and sustain operations to achieve strategic objectives and maintain stability thereafter. In conjunction with the phases of a joint operation, the Seabasing JIC has developed five distinct lines of operations identified as close, assemble, employ, sustain, and reconstitute. These lines allow the JFC to employ effectively a joint sea base capability during full spectrum operations. Additionally, within the context of the joint campaign framework, The Army future Modular Force will apply adaptive combinations of the operational ideas: shaping and entry operations, operational maneuver from strategic distances, intra-theater operational maneuver, decisive maneuver, concurrent and subsequent stability operations, and distributed support and sustainment.

c. Table 2-1 provides a crosswalk of the joint operational phases with the LOOs from the Seabasing JIC and the Army capstone operational ideas.

**Table 2-1
Operational Crosswalk**

TRADOC Pam 525-3-0 Operational Phases	JP 3-0 Joint Phases	Seabasing JIC Lines of Operations	Army Capstone Concept Operational Ideas
Prepare and Posture	Shape Deter	Close	
Shape and Enter	Shape Seize the Initiative	Assemble & Employ	Shaping and Entry Operations
Conduct Decisive Operations	Seize the Initiative Dominate Stabilize Enable Civil Authority	Employ & Sustain	Operational Maneuver from Strategic Distances Intratheater Operational Maneuver Decisive Maneuver
Transition	Dominate Stabilize Enable Civil Authority	Sustain & Reconstitute	Concurrent and Subsequent Stability Operations Distributed Support and Sustainment

d. To facilitate the vignette based description of Army seabasing operations in support of the future Modular Force this plan will concentrate on the operational phases outlined in TRADOC Pam 525-3-0 while remaining linked to the seabasing LOOs and the Army capstone key operational ideas.

e. Seabasing Vignettes

(1) An overarching view of a joint seabasing operation is depicted in figure 2-5. This is followed by joint operational level vignettes of a sea base established in support of a MCO by phases of operation. It will provide a description of actions that would take place during the four

power. Immediate response forces will deploy using intertheater (JHSS or AFSB) and intra-theater high speed connectors (joint high speed vessel (JHSV) or joint heavy lift (JHL)) and close to the sea base or directly to objectives in the JOA. Additionally, unit equipment sets and supplies would be pre-configured for immediate deployment to the JOA with strategic intertheater airlift and sealift. Early entry command posts for these forces will be among the first elements to deploy into the JOA. Home station operations centers would be fully manned and operational, with base installations acting as force projection platforms.

(e) For MCOs, flexible deterrent options supportive of rapid force projection could include-

- Repositioning of the space based C2 and ISR constellations to strengthen strategic-to-tactical communications, intelligence gathering, early warning, situational understanding (SU), and space control in the JOA.
- Early deployment of air, land and sea based elements of the TAMD system to positions where they can protect intermediate staging bases (ISBs), forward operating bases (FOBs), deploying forces, regional partners, and entry points.
- Pre-conflict movement of prepositioned afloat naval forces and Marine forces (CSGs, ESGs, submarine groups (nuclear attack submarines (SSNs)), and MPF(F)).
- Pre-conflict movement of immediate response air forces (air and space expeditionary task forces including ISR, global strike, airlift, air-to-air refueling, combat search and rescue, and space assets).
- Pre-conflict movement of prepositioned afloat and immediate response Army forces (ASF, airborne BCTs, AFSB, specialty health service support and select vessel units such as, landing craft C2, joint C2 ships, JHSV, LCU, LSV, LCM).
- Pre-conflict movement of theater opening sustainment, port and terminal units to strategic sea ports of embarkation (SPOEs) and aerial ports of embarkation (APOEs), ABs and ISBs to prepare for the deployment of forces.
- Pre-conflict movement of prepositioned afloat and ashore unit sets and sustainment stocks (Marine forces, air forces, Army forces, naval forces, DLA).
- Augmentation of SOF capabilities in the JOA for reconnaissance, surveillance and direct action.
- Covert, and potentially, overt clearing operations within maritime lanes proximate to the JOA.
- Change of the reduced operating status and movement of strategic lift assets to APOEs and SPOEs.
- Activation and movement of aerial and seaport units to critical strategic APOEs and SPOEs.
- Establishment of ISBs, AB and FOBs needed to support deployment and sustainment to the JOA.

(f) As the crisis develops, joint planners will complete an operational net assessment of the adversary to identify fully and prepare to destroy the most critical anti-access capabilities. Most notably of these includes enemy knowledge, command networks; AMD; sustainment capabilities; and components of his precision engagement system such as long-range ballistic and

cruise missiles, long-range artillery, rockets, sensors and target acquisition, unmanned aerial systems (UAS), and C2 nodes.

(g) Concurrently, the responsible CCDR will modify the time phased force deployment data list in coordination with the USTRANSCOM Deployment and Distribution Operations Center for identified forces. This will establish the required flow of forces using a combination of ABs and the sea base to allow their rapid closure and assembly into the JOA while minimizing RSO&I. This rapid closure and assembly will allow the CJFC to project joint combat power ashore to seize the initiative early.

(h) Leveraging the scalability of the joint sea base, small units (joint, combined, SOF and interagency) may be employed early to conduct sensitive, mission critical, limited operations. This may occur concurrently with the closure and assembly of initial joint forces, and expansion of the sea base. As forces assemble and begin operations, the CJFC will designate component commanders to include; combined joint forces air component commander, combined joint forces land component commander, combined joint forces maritime component commander, and combined special operations component commander. Additionally, the CJFC may establish additional CCDRs or task forces such as combined joint interagency task force or combined joint IO CCDR when dealing with stability and support, humanitarian assistance or disaster relief.

(i) While en route to the JOA, C2 and ISR capabilities embedded aboard the strategic air and sealift platforms will enable embarked force commanders to maintain continuous SU. Mission planning will continue, as well as rehearsals, based on continuous situational updates. A robust joint battle management C2 capability, facilitated by the net-centric environment, is essential in providing the common operational picture (COP) to all units of the joint force. It is essential, that this management system be linked to all deployment and sustainment systems ensuring 100 percent TAV and ITV of all units, equipment, and supplies closing to the sea base and JOA.

(3) Shape and Entry–Assemble and Employ (see figure 2-7)

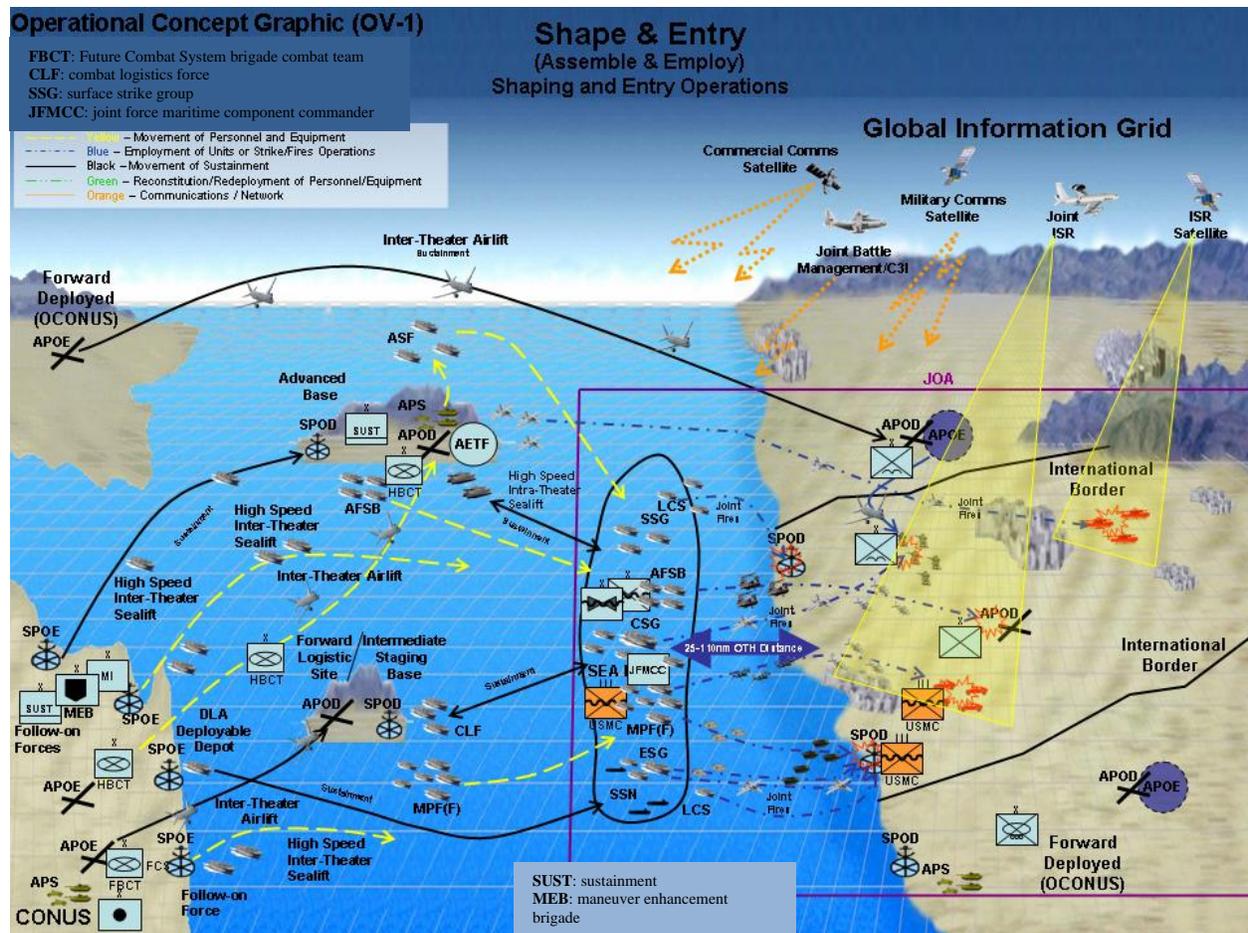


Figure 2-7. Shape and Entry—Assemble and Employ

(a) If deterrence fails and intervention is directed, the CJFC conducts operations to establish maritime, air and space superiority and expand maritime, air and space access to increase freedom of navigation and maneuver unimpeded by the enemy threat. Maritime superiority requires the defense of the sea base from surface as well as sub-surface threats which could include submarine, small boats, asymmetric insurgent groups, or suicide attacks. These attacks will be countered and defeated by capabilities resident to and operating either in the sea base or JOA under the auspices of the sea shield and joint undersea superiority (JUSS) concepts. It also requires the detection, identification, neutralization and potential clearing of mines through active mine countermeasure and persistent undersea warfare and anti-submarine warfare operations to ensure maneuver access in key littoral approaches for follow-on surface assaults.

(b) Air and space superiority will be established as the sea base is formed to provide the joint force freedom of maneuver unimpeded by air or missile threats. This superiority includes defending the joint sea bases from enemy air and missile attack, including theater ballistic missiles, and the intercept and engagement of enemy aircraft and cruise missiles throughout the JOA.

(c) As sea, air and space superiority is established; the CJTF attacks and destroys the enemy anti-access to establish air and maritime access for assault forces into the JOA, see

figure 2-8. Critical targets include the enemy's long-range precision engagement system (including intermediate-range ballistic missiles, air launched cruise missiles, ground launched cruise missiles, unconventional forces, enemy surveillance and targeting systems, and battle command systems. Critical to success is the destruction of shore-based missile defenses to allow the sea base to maneuver to desired operational distances (25 or more nautical miles (nm) from the shore). The CJFC primarily employs early deploying air and maritime forces (global strike, Sea Strike), as well as CONUS-based strategic strike elements to destroy these enemy shore-based defenses.

(d) As shaping operations begin, logistical infrastructures required to support forcible entry operations and the campaign are fully established. Additionally, the CJTF initiates IO to support assured access, closely integrating strategic-theater and operational IO measures with diplomatic, political, and economic activities. Also, additional TAMD elements deploy and are employed to strengthen coverage for the CJTF and regional allies. Global strike task force elements are well established at FOBs and maritime forces have established sea bases within striking range of enemy forces. Early entry SOF are employed either from the sea base or ABs using intratheater sea and air lift, rigid hull inflatable boat, advance sea, air, land delivery system, cargo helicopter (CH) (CH-47 Chinook, CH-53K Super Stallion), V-22 Osprey, and C-130 Hercules and will assist in targeting, intelligence, surveillance, and identification of enemy units and activities. ABs and ISBs are operational and expanded to support increased sustainment and deployment operations into the JOA. Aggressive mine clearing establishes littoral access in areas chosen specifically for operational utility and over-the-shore operations. Immediate response forces will have closed to the sea base and will begin assembly operations for employment ashore. Finally, the CJFC directs forcible entry operations to secure air and sea lodgments for sustained combat operations.

(e) Once the requisite level of assured access is achieved, the CJFC rapidly employs forces ashore using air (CH-47, CH-53K, V-22 Osprey) and surface (landing craft air cushioned (LCAC), expeditionary fighting vehicles, LSV, LCU, JHSV, amphibious assault vehicle) intra-theater connectors organic to the sea base. The CJFC directs subordinate commanders to secure multiple air and sea entry points, in order to rapidly build joint combat power ashore and seize the initiative early, primary and alternate APODs and SPODs are selected based on their capability to accept intra-theater air/sea connectors; egress transportation infrastructure; proximity to maneuver objective areas; proximity to each other; and the level of enemy defenses in place. Forcible entry operations, are conducted under the protective umbrella of sea shield, sea strike, JUSS, joint undersea defense, integrated surface defense, and joint integrated air and missile defense (IAMD).

(f) As a potential joint forcible entry capability from the Army resident in the sea base, infantry, Stryker or Future Combat Systems (FCS)-equipped BCTs will be employed to an operational depth of up to 110 nm from the sea base via vertical maneuver (heavy air lift required for medium forces) or maneuvered and employed via surface connectors (LCAC, LSV, LCU, JHSV) to austere ports. HBCTs employed via surface connectors may also provide force options. These Army units will conduct RSO&I en route to ISBs or ABs or at the sea base and will be deployed fully combat configured for rapid employment into the JOA. C2 elements will initially be sea based and fully integrated into the joint battle command network through a robust

C2 network as ground forces are employed into the JOA. Overall, the simultaneity of these actions creates multiple dilemmas for the enemy and permits the CJFC to seize the initiative.

(g) Additional rapid response and follow-on air, sea and land forces from CONUS, ABs and forward operating areas continue to deploy to and through the sea base via high speed inter-theater sea and air lift as initial forces are employed to close the vulnerability gap and ensure there are no operational pauses.

(h) Army rapid response and follow-on forces (configured to respond shortly after the employment of immediate forces) are envisioned to include designated and prepositioned assets in theater, OCONUS, and CONUS. Examples include APS (both ashore and afloat), and additional maneuver and supporting forces. Rapid response forces will use high-speed inter-theater sea and air lift to ABs up to 2000 miles away from the sea base, and in some cases, close directly to the sea base or the JOA. These intertheater high speed vessels must be capable of conducting at sea transfer of personnel and equipment and be selectively off-loaded to ensure the rapid force employment in the JOA.

(i) On arrival at ABs, deploying forces will conduct RSO&I, draw prepositioned equipment, and load onto high speed intratheater air or sea connectors for movement to the sea base and JOA. These intratheater high speed connectors will also provide critical transportation between sea base platforms and from the sea base to shore within the JOA. Additionally, sea connectors provide rapid, long endurance, at sea transfer, high capacity movement of joint personnel and equipment (company through brigade) from advanced bases to distributed, unpredictable, austere locations. This is accomplished using lightweight modular causeway systems (LMCS), mobile landing platforms, rapid roll-on/roll-off discharge facilities, and watercraft (Army, Navy, and Marine Corps) or between sea base prime movers such as the large medium-speed roll-on/roll-off (LMSR) vessels, general purpose amphibious assault ships, and multipurpose amphibious assault ships, dock landing ships, and amphibious transport docks.

(j) During the initial stages of the campaign, sustainment for extended and distributed operations is integrated into the air and sea assault operations to ensure that commanders employ forces and move to assigned operating areas with capability to continue to fight without any operational pauses. This initial sustainment needs to be included as an immediate response capability and can include prepositioned container and warehouse ships with high-rate material movers and stabilizing cranes, maintenance ships, and bulk petroleum tankers. Additionally, critical resupply may include strategic and theater air lift, high-speed intratheater vessels, and precision air drop.

(k) Thus, the joint forcible entry operations force should be capable of deploying and employing with the smallest possible logistics footprint in or near the operating area while maintaining a robust reach back capability. However, this will require new capabilities able to command and direct logistics; full integration of the joint deployment, employment and sustainment planning process; exponentially improved situational awareness with the ability to provide dynamic logistics which includes the capability to quickly move, configure and transport sustainment resident in the sea base to distributed operating sites ashore.

(4) Decisive Operations

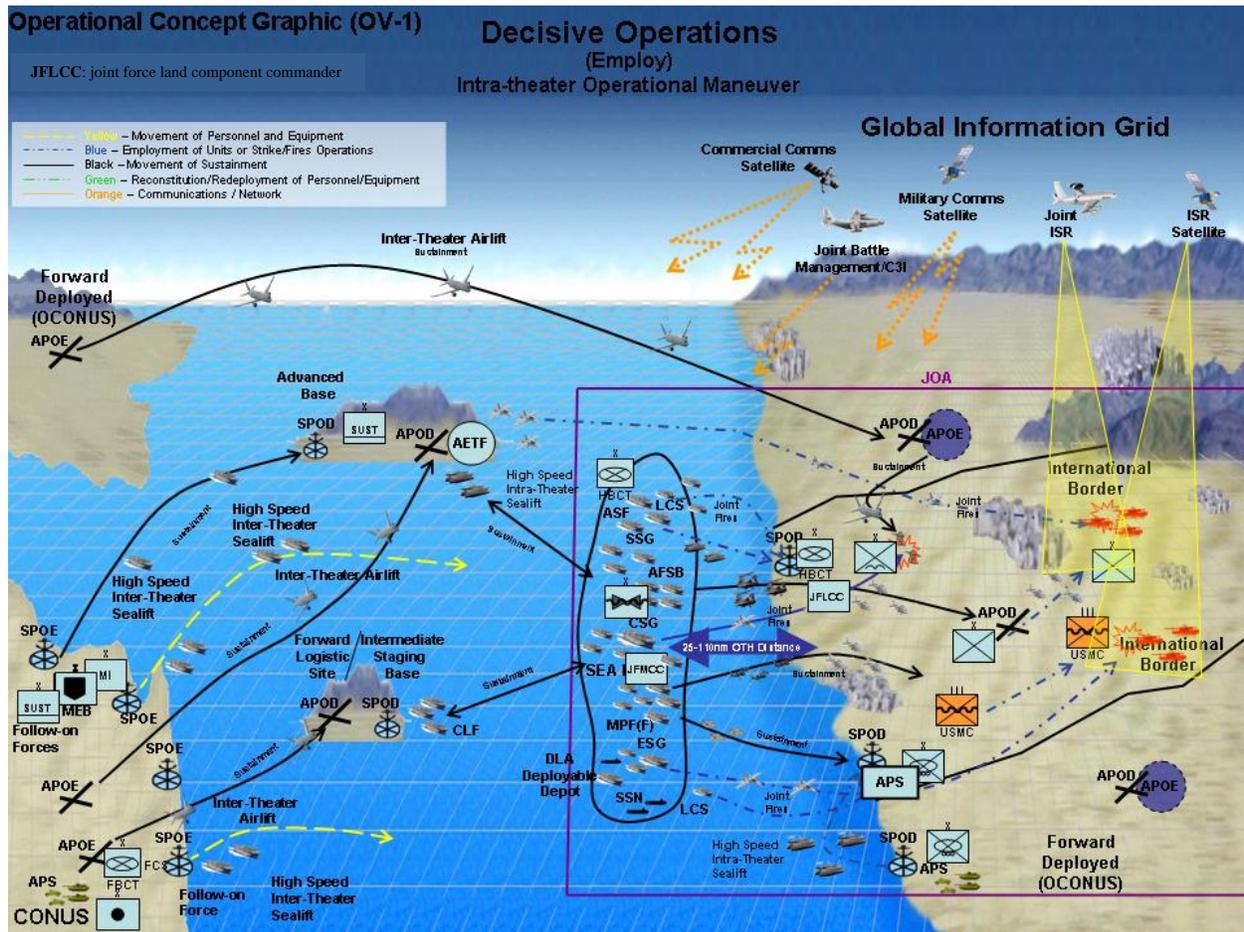


Figure 2-8. Decisive Operations—Employ—Intratheater Operational Maneuver

(a) Regardless of the mode of deployment to the JOA and sea base, Army forces must have the capability to integrate quickly and efficiently into the joint sea base operation and support sustained combat operations ashore. Army forces and maritime platforms must have the capability to conduct at-sea arrival, reception, and assembly of arriving joint forces through SS4 while maintaining uninterrupted communication, network connectivity and 100 percent asset visibility.

(b) As follow-on forces and equipment arrive at the sea base via high-speed inter- and intratheater connectors (air and surface) they will either be transferred to sea base platforms which will have the capability to handle a full range of cargo, equipment, supplies, and personnel or move directly to established air and sea ports in the JOA. Interfaces between sea base platforms and high-speed inter- and intra-theater connectors (air and surface) must support the transfer of joint forces and equipment through SS4. At a minimum, this future capability will require materiel handling equipment, SS mitigation system, platform interface capability for trans-loading, skin-to-skin transfer, and have selective off-load.

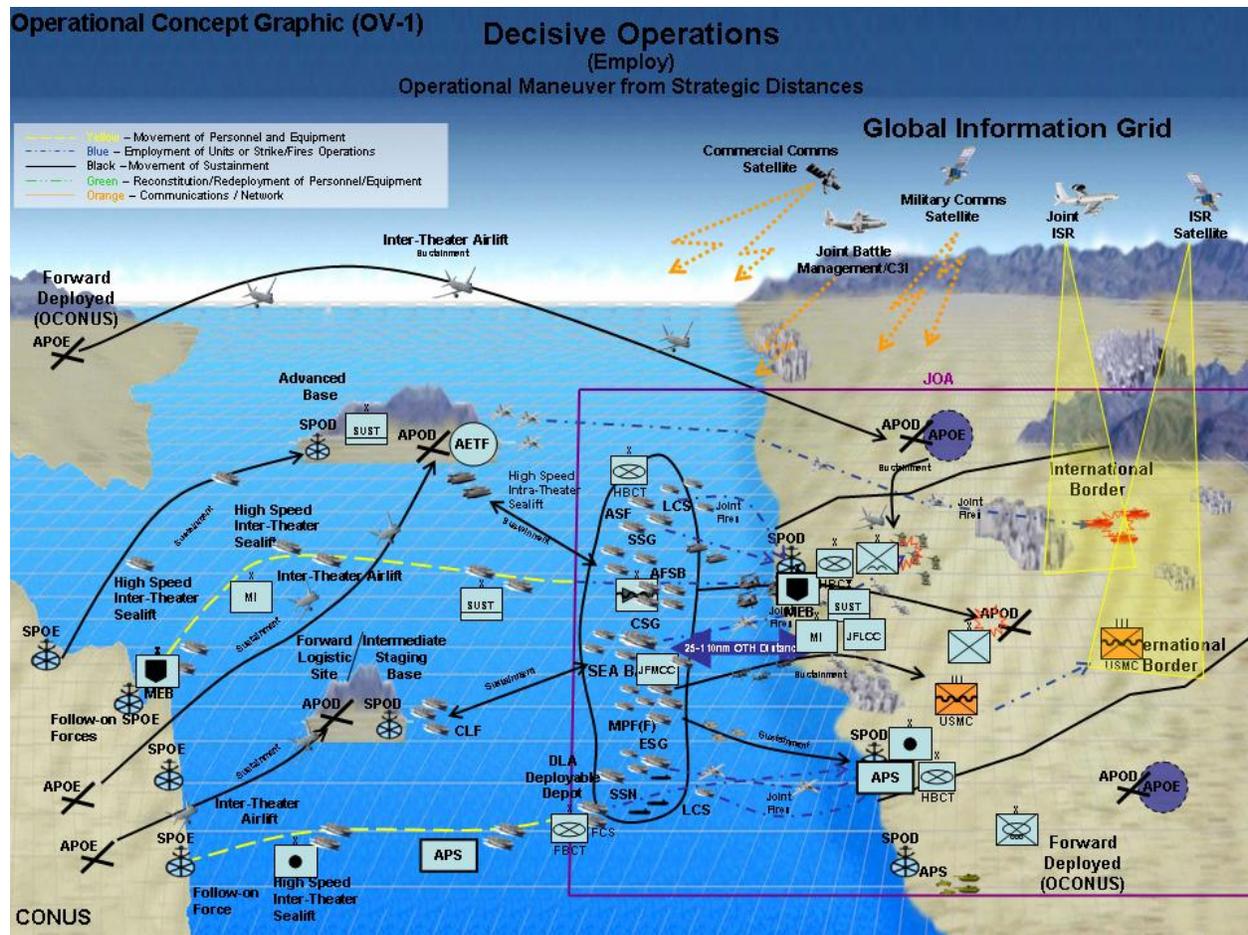


Figure 2-9. Decisive Operations –Employ-Operational Maneuver from Strategic Distances

(c) As austere sea ports are established, rapid port enhancement and JLOTS capabilities have closed to the JOA and are employed to expand the capability of these entry points for sustained operations and use by other legacy sealift. This expanding capacity will ensure the near continuous flow of ground forces can be sustained through the combination of current and advanced lift capabilities. High-speed inter- and intratheater sea and air lift will continue strategic force projection of forces from ABs or CONUS or operate as intra-theater lift for both maneuver and sustainment within the JOA, see figures 2-8 and 2-9. As part of this expansion of seaport and airfield capability, the Army will deploy and employ sustainment brigades with theater opening and theater distribution augmentation, various support brigades with medical and engineer capabilities as well as seaport and airfield terminal units to efficiently and rapidly unload vessels and aircraft and clear these seaport and airfields. The overarching goal is to build ground combat power in the theater as rapidly as possible and provide more options and greater joint capability as the CJTF transitions to decisive operations.

(d) As follow-on forces close to the JOA the deployment must not be limited to sequential force flow, but be a rapid employment of joint forces through multiple entry points. This rapid employment and responsiveness of follow-on forces will be gained by enabling force projection through multiple, parallel flow of forces into multiple ports of entry. This will generate increased throughput and balanced deployment momentum that further enable rapid

transition to decisive operations. As follow-on forces are introduced, they may deploy and employ directly from CONUS or OCONUS to objectives ashore, deploy to ABs or ISBs, then deploy and employ from the ABs to objectives ashore, or deploy from ABs, CONUS, and OCONUS to sea based platforms, then employ to objectives ashore.

(e) Additionally, the sea base may act as a floating staging base providing logistics support and force protection to forces employing from outside the JOA to the sea base or through the sea base. This logistical support will include all classes of supply, limited maintenance capability, decontamination and wash down facilities, personnel, religious, mortuary affairs, casualty evacuation and medical support and will be enabled by the amphibious force, MPF(F), DLA, ASF, afloat SSAs, AFSBs, TASMC, and information systems capabilities. This will allow the CJFC and subordinate commanders to conduct RSO&I in a protected environment, conduct final rehearsals, and ensure full operating capability prior to employing ashore.

(f) As the theater matures and multiple combat, combat support and combat service support units are conducting sustained operations ashore, the sea base will continue to provide distributed sustainment, flexible force maneuver, strike capability, assured littoral access, and undersea and surface protection. AMD of the sea base may be provided via Army IAMD and joint IAMD capabilities.

(5) *Transition Operations*

(a) During transition, the CJFC focuses on coordinating joint force activities to bring operations to a successful conclusion. This includes the assessment of seabasing operations and the potential transition of selected sea based joint forces to other missions.

(b) As follow-on forces are employed in to the JOA, or as the operational situation dictates (for example, transition to stabilization operations or need to project power elsewhere), the CJFC may rapidly transition joint sea based forces to sequential or follow-on operations through at-sea reconstitution. This ability to reconstitute at sea and project forces to different locations provides the CJFC a rapid response capability in addition to current projection of forces or equipment from CONUS or other forward locations.

(c) Once the decision is made to reconstitute, selected forces ashore will recover personnel and equipment to the sea base using intra-theater connectors (air and surface), see figures 2-10 and 2-11. Upon recovery to the sea base, joint forces begin the process of restoring selected combat capability. This process is facilitated by the logistics and maintenance capability inherent to the sea base, including sustainment through access to distribution pipelines, intra-ship transfer, and selective on-load and off-load capability.

(d) Once designated joint forces have been recovered to the sea base, the CJFC has the option of maneuvering and repositioning within the JOA. This repositioning can occur concurrently with the at-sea restoration of joint force combat capability. Once the joint force capability has been reconstituted (for example, the forces and their equipment has been restored to fully operational readiness), the CJFC then has further options to re-employ sea based forces,

including projecting power ashore in the same JOA on another axis of entry, or in another role altogether (for example, stabilization, peacekeeping).

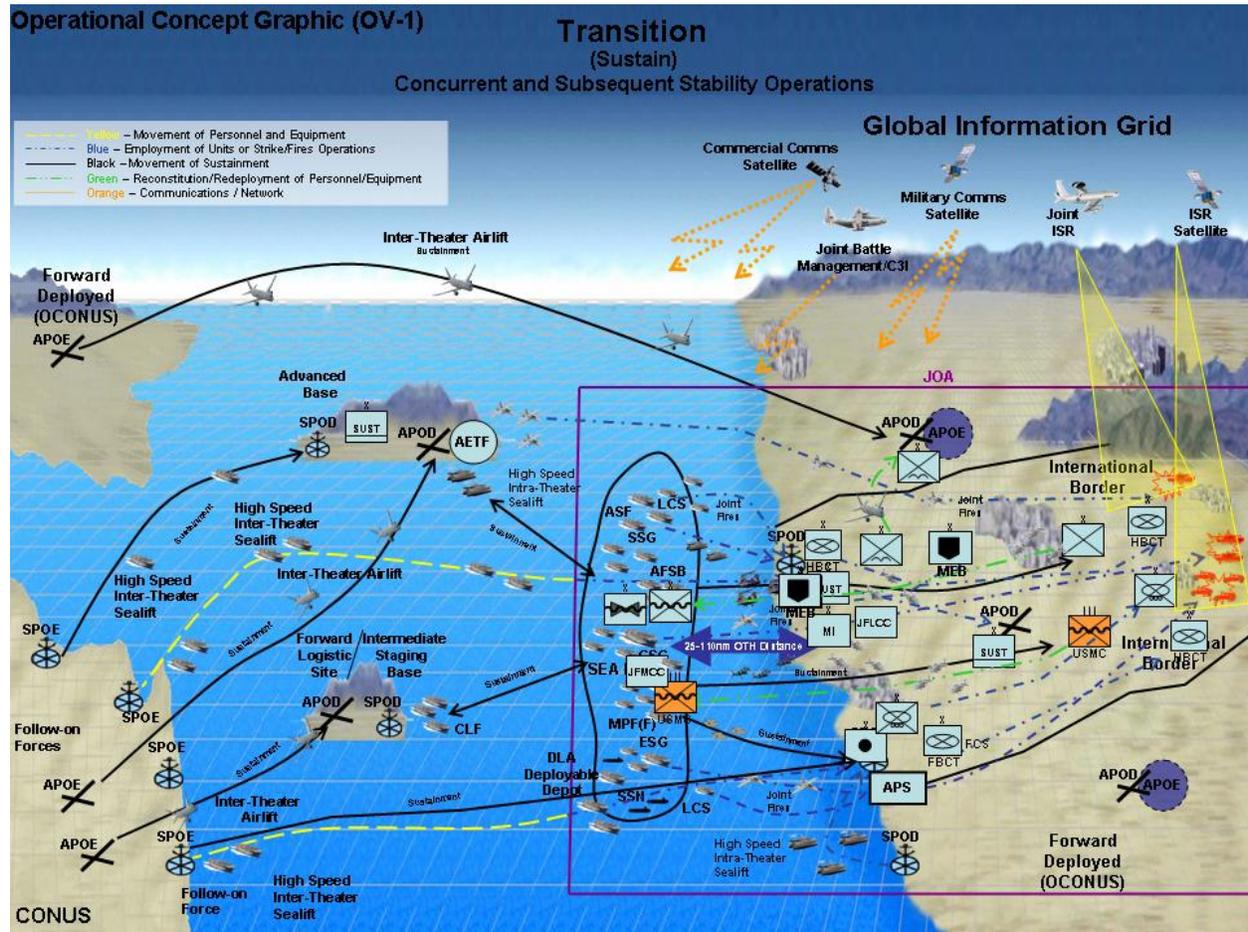


Figure 2-10. Transition–Sustain-Concurrent and Subsequent Stability Operations

(e) The CJFC has the additional option of rapidly deploying sea based forces to another JOA. This is advantageous to support responsiveness required by future defense guidance for immediate and rapid response forces. Redeploying the sea based force allows the CCDR the ability to rapidly reposition and employ a proven joint combat force, for example, immediate and rapid response forces that have already closed, assembled, and integrated. Seabasing provides the responsiveness as directed in defense guidance, to redeploy from one JOA and seize the initiative in another JOA.

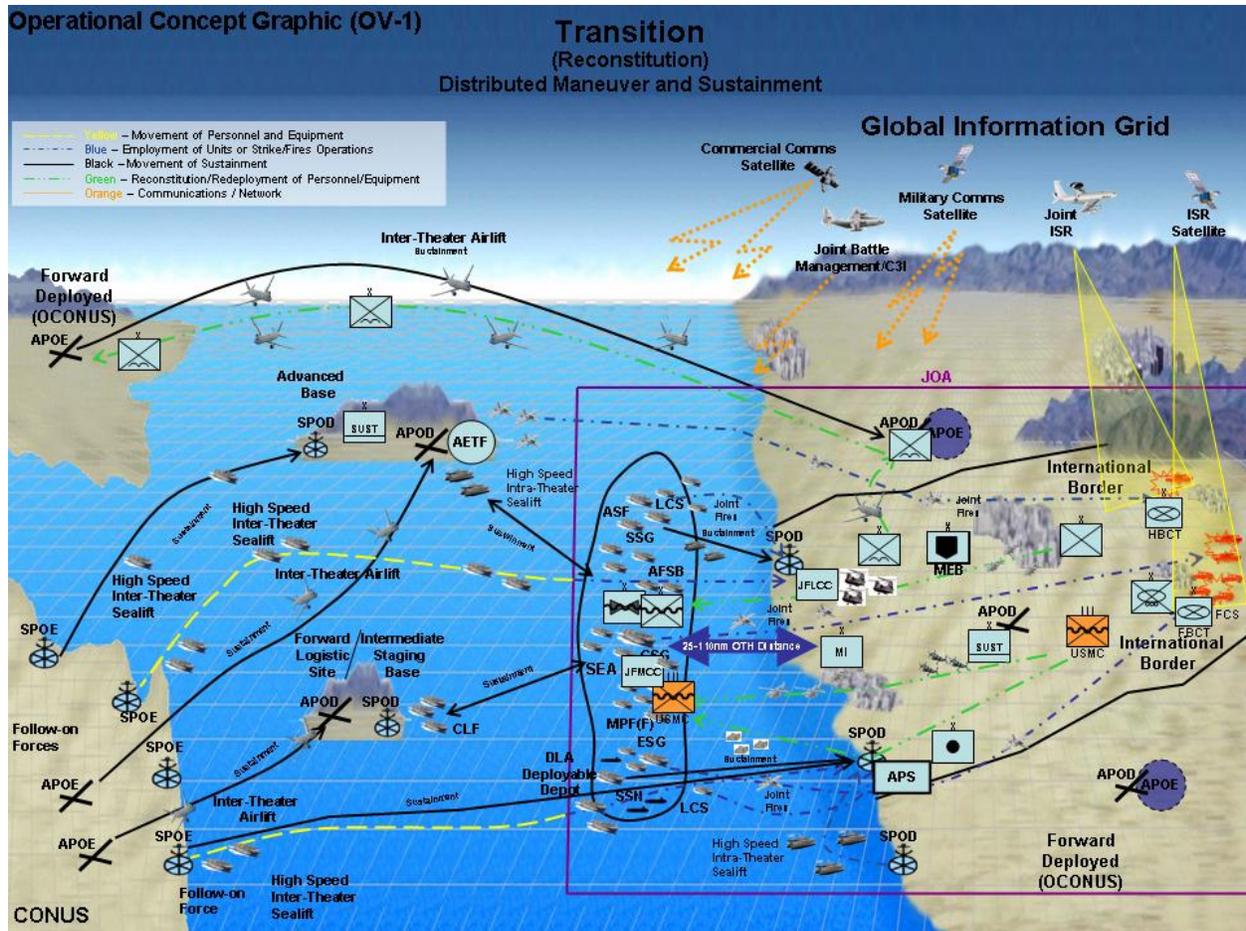


Figure 2-11. Transition–Reconstitute-Distributed Maneuver Support and Sustainment

2-6. Summary

The success of the future Modular Force will depend significantly upon seabasing and the operations that take place at sea. The Army’s dependence on this joint domain, and the facilities, personnel, organizations and materiel that bring the flexibility of the sea to the war fighter cannot be understated. Seabasing will be an integral component of future Modular Force operations and the capabilities that enable the application of seabasing must be viewed in the larger construct of joint operations. Army seabasing operations depend on the successful Army and joint transformation and exploitation of the sea.

Chapter 3 Required Capabilities

3-1. Introduction

a. The Seabasing JIC and the Army's functional concepts provide both explicit and implicit descriptions of required capabilities and seabasing functions necessary to achieve the objectives of the future Modular Force. These capabilities are not ends unto themselves but integral components of a larger capability goal. The span of influence of a single sea base capability is not confined to a single functional concept but often enables or effects one or more of the functional concepts and multiple proponent areas of responsibility.

b. This list of required capabilities should be interpreted as optimum capabilities for the 2015-2024 timeframe. The Army seabasing required capabilities listing is presented in relationship to the Seabasing JIC and the Army functional concepts. The listing is not all inclusive and will be further refined and developed as the Army seabasing concept emerges and as the Joint Concepts Integration Development System (JCIDS) analysis is executed on this and the joint seabasing concept. Technological and threat advances may also drive changes to the listed seabasing related capability requirements.

3-2. Seabasing JIC Capabilities

Using the Seabasing JIC as a starting point, the functional needs analysis developed by the CBA senior working group (SWG) under the direction of the Joint Staff J-8 determined the essential capabilities for seabasing through a filtering process that incorporated the JIC CONOPS and recommendations from joint seabasing wargame, Nimble Viking. These essential capabilities were associated with primary and supporting FCBs, and linked to Tier 1 and Tier 2 joint capability areas. Tier 1 JCA is a high-level capability category that facilitates capabilities based planning, major trade analysis, and decisionmaking. Tier 1 JCAs are composed of functional, operational, domain, and institutional based joint capabilities. Tier 2 JCA is a more specific capability category within a parent Tier 1 JCA. Tier 2 JCAs provide sufficient definition to enable the identification of required capabilities. Tier 2 JCAs are intended to reduce duplication between Tier 1 JCAs and are not Service, mission, or platform specific. The seabasing capabilities were also categorized as new, enhanced, or same (referring to existing seabasing capabilities), and prioritized by the FCBs according to the GCC's needs. A final list of 30 capabilities was thus derived. See table 3-1, for the 30 prioritized capabilities and how they are aligned with the Army functional concepts.

Table 3-1
Seabasing Joint Integrating Concept Capability Statements

JIC Capability Statement #	JIC Capability Statement	Aligned Army Functional Concept
1	Provide continuous support and sustainment without reliance on land bases within the JOA.	TRADOC Pam 525-4-1 Sustain
2	Provide overseas presence through forward deployed forces and/or prepositioned materiel.	TRADOC Pam 525-3-6 Move
3	Provide increased speed of force closure from strategic distances to the JOA.	TRADOC Pam 525-3-6 Move
4	Provide net-centric, collaborative environment that enables dynamic, mobile, and distributed, units and platforms to operate from a sea base.	TRADOC Pam 525-3-3 Battle Command
5	Provide and integrate persistent joint logistics to sustain expeditionary joint force operations.	TRADOC Pam 525-4-1 Sustain
6	Provide on-scene and rapidly deployable C2 and ISR systems that are inter-operable with joint and select multi-national systems, scalable to mission requirements.	TRADOC Pam 525-3-3 Battle Command
7	Provide ability to rapidly receive, assemble, transfer and/or cross-deck (from one vessel to another) joint forces (personnel and equipment) and/or sustainment, and tailor joint force packages at sea.	TRADOC Pam 525-4-1 Sustain
8	Enable immediate integration of follow-on movement and sustainment of personnel, equipment, and supplies.	TRADOC Pam 525-4-1 Sustain
9	Provide the joint force a base at sea and a complement to existing global basing strategy.	TRADOC Pam 525-3-5 Protect
10	Conduct simultaneous offensive operations against multi-dimensional threats (conventional as well as irregular).	TRADOC Pam 525-3-4 Strike, TRADOC Pam 525-3-5 Protect
11	Provide ISR to joint forces operating in the JOA.	TRADOC Pam 525-2-1 See
12	Provide simultaneous force flows to include forcible entry operations by air and sea across multiple entry points.	TRADOC Pam 525-3-4 Strike
13	Ability for joint forces to move rapidly to and from a sea base.	TRADOC Pam 525-3-6 Move
14	Provide ability to maneuver and sustain joint forces from the sea base to inland objectives at operational depths from over the horizon (OTH) by a combination of air and surface means to include over the shore, shallow water, and austere access.	TRADOC Pam 525-3-4 Strike, TRADOC Pam 525-4-1 Sustain
15	Access and integrate relevant intelligence activities (including adversary capabilities, disposition, and intention) to support joint operations.	TRADOC Pam 525-2-1 See
16	Improve sustainment of rapid response forces and select joint forces ashore.	TRADOC Pam 525-4-1 Sustain
17	Provide joint integrated fires from the sea.	TRADOC Pam 525-3-4 Strike
18	Increased force application operational tempo through minimization of operational pause caused by logistics build-up ashore.	TRADOC Pam 525-3-4 Strike
19	Provide logistics C2 that includes TAV and ITV.	TRADOC Pam 525-4-1 Sustain
20	Provide collaborative preparation and planning to include course of action development, virtual rehearsals, and simulations.	TRADOC Pam 525-3-3 Battle Command
21	Evacuate casualties to and from the sea base by air and sea.	TRADOC Pam 525-4-1

		Sustain
22	Provide force protection to elements within sea base area of influence without reliance on land bases within the JOA.	TRADOC Pam 525-3-5 Protect
23	Provide theater hospitalization (formerly level III now role 3 medical support) support within the sea base.	TRADOC Pam 525-4-1 Sustain
24	Improve joint force operational maneuver through exploitation of the sea as maneuver space.	TRADOC Pam 525-3-3 Battle Command, TRADOC Pam 525-3-4 Strike
25	Provide SS mitigation, including platform interfaces and materiel handling equipment systems that support transfer operations through SS4.	TRADOC Pam 525-4-1 Sustain
26	Handle, receive, store, transfer, and account for standardized inter-modal packaging.	TRADOC Pam 525-4-1 Sustain
27	Provide offensive air support to joint forces operating in the JOA.	TRADOC Pam 525-3-4 Strike, TRADOC Pam 525-3-5 Protect
28	Provide appropriate maintenance during recovery, replenishment, reconstitution, repositioning, and reemployment of select joint forces.	TRADOC Pam 525-4-1 Sustain
29	Provide combat search and rescue to joint forces operating in the JOA.	TRADOC Pam 525-3-5 Protect
30	Provide facilities to affect recovery, decontamination, and reconstitution of chemical, biological and radiological (CBR) contaminated equipment and personnel.	TRADOC Pam 525-3-5 Protect

3-3. Battle Command Seabasing Capabilities

a. TRADOC Pam 525-3-3 describes how future Modular Force commanders must use the best available information in an uncertain environment to make tough decisions that put Soldiers’ lives on the line. The commander must be the focal point of decisionmaking and execution within military operations. The role of the staff and supporting technological aids is to support the commander in achieving SU, decisionmaking, disseminating directives, and following directives through execution. SU requires the commander to apply his skilled judgment, and that of his staff, to interpreting information in the context of the mission, the higher commanders’ intent, and visualization of the end state of the mission, and to apply that interpretation to improve the likelihood of mission success.

b. Many of the key ideas within TRADOC Pam 525-3-3 relate to seabasing operations and are listed below.

(1) The centrality of the commander.

(2) En route and sea based collaborative planning and rehearsal.

(3) Decision superiority; central, critical role of high SU and COP to include continuous battle assessment; incremental adjustment to operations during execution, adaptive C2 processes and structures, expanding span of control, and virtual staff, and red teaming.

(4) Single, integrated Army battle command system(s), joint capable to lower levels to include the network, interagency and multinational interoperability and integration, horizontal and vertical fusion, and ubiquitous, redundant, continuous communications network.

c. Capability statements are outlined in table 3-2.

3-4. See Seabasing Capabilities

a. TRADOC Pam 525-3-1 describes the acquisition and development of data, information, knowledge and intelligence to facilitate the future Modular Force's decisionmaking and execution from the operational level to the lowest tactical levels. The force will have access to vast amounts of data and information relevant to the complex environments and problems it will face. Knowledge of friendly forces and the environment permits proper employment of all capabilities. Knowledge of the enemy and the environment provides commanders the ability to plan and execute operations.

b. Many of the key ideas within TRADOC Pam 525-3-1 relate to seabasing operations and are listed below.

(1) Acquire. The future Modular Force will obtain data about itself, the environment, and the enemy in order to support development of relevant information, knowledge and ultimately, understanding.

(2) Transform. The future Modular Force will convert vast amounts of data into knowledge that the force can employ operationally. The fusion and analysis needed to accomplish this are the most important elements of the see function, and the most difficult.

(3) Provide. In order for decisionmakers and other users, for example, staffs and cells, to employ this knowledge the future Modular Force will present the data, information, and knowledge at the right time and place, and in the right form.

(4) Data Exploitation. The data available to the future Modular Force will be too extensive and varied for humans alone to find and organize. This is particularly true when dealing with a great amount of raw data, covering a wide number of subjects. For example environmental clutter is high and enemy observables are very ambiguous. To cope with this, the future Modular Force will employ data exploitation to create conditions for analysts to find and use data more effectively.

c. Capability statements are outlined in table 3-2.

3-5. Strike Seabasing Capabilities

a. TRADOC Pam 525-3-4 describes how the future Modular Force will deploy with a tailored mix of organic and available joint, allied and coalition strike capabilities enabled by a global information grid (GIG) that will provide fully integrated and transparent communication and computer interfaces between joint fires, command and control, and knowledge networks.

Future Modular Force commanders will be able to exploit the GIG to provide a continuous integration and employment of networked fires that will extend seamlessly from strategic to tactical distances and timeframes with no gaps in coverage or loss of timeliness. The future Modular Force must also be able to exploit available information systems to gain and maintain the near real time SU required to employ fires that achieve maximum desired effects.

b. Many of the key ideas within TRADOC Pam 525-3-4 relate to seabasing operations and are listed below.

(1) Provide continuous integration and employment of networked strike from strategic to tactical distances. This is enabled through collaborative, dynamic planning, and employment across all levels of command, continuous access to the GIG, seamless and transparent communications and computer interface, and routine exploitation of available joint, allied, and coalition fires.

(2) Execute seamless employment of strike by lethal or nonlethal means by achieving routine integration of fires with IO core and related capabilities and expanding nonlethal means and capabilities.

(3) Prosecute elusive and fleeting surface targets by achieving near real time situational awareness (SA) for strike employment, eliminating response gaps between organic and other available strike capabilities, and delivering immediate, precision, or sustained fires.

(4) Establish and maintain routine access to space at all levels.

(5) Guarantee responsiveness and scaled lethality through joint interdependence by identifying requirements for reciprocal joint support of lethal and nonlethal strike and establishing a fully interoperable and seamless fires network at all levels.

c. Capability statements are outlined in table 3-2.

3-6. Protect Seabasing Capabilities

a. TRADOC Pam 525-3-5 describes how protection is a process, a set of activities and capabilities by which the future Modular Force protects people (combatant, non-combatant), assets, and information against a full spectrum of threats. Future Modular Force Soldiers, platforms, and units; fixed, semi-fixed, and mobile assets and locations; along with information systems and infrastructure, will require advanced protection capabilities. When required for mission accomplishment, the future Modular Force will also provide protection related capabilities to inter-agency and multi-national partners which may include their people, facilities, population centers, bases, installations, or sea based organizations. Future Modular Force protection must be comprehensive and provide modular layers of capabilities and capitalize joint interdependencies to create overlapping protection, resulting in 360° hemisphere coverage.

b. Many of the key ideas within TRADOC Pam 525-3-5 relate to seabasing operations and are listed below.

(1) Soldier protection. The Soldier will require protection from small arms, the effects of explosives and fragments, directed energy, and nonlethal weapons. Capabilities must keep the Soldier mobile and maintain physical flexibility based on the Soldier's tactical mission, in all types of terrain and provide protection in all climatic and chemical, biological, radiological, and nuclear (CBRN) environments.

(2) Platform protection. Platforms must be light-weight and mobile in all environmental conditions and possess organic protection against lethal and nonlethal threats. They will use light weight, self-healing, and reactive composite material and, integrated active protection measures.

(3) Unit protection. Unit protection includes Soldier and platform protection integrated with knowledge, C2, and response capabilities. Unit protection will utilize active capabilities against lethal and nonlethal threats. A unit will additionally achieve protection through offensive operations using mobility, knowledge superiority, and precision engagement, defeating an adversary before they can attack, and advantageously posturing friendly forces for decisive operations.

(4) Fixed, semi-fixed, and mobile protection. Protection capabilities must be effective in fixed, semi-fixed, and mobile environments, and during maneuver operations. Augmentation of Army Modular Forces with joint protection interdependencies will provide comprehensive lethal and nonlethal layered protection during these operations.

(5) Information protection. The wide array of electronic communications, C2 systems, and intelligence sensors must be protected from electronic warfare and cyber threats. The knowledge based future Modular Force must protect information capabilities against intrusion and destructive attacks. Information protection will require joint interdependencies to protect all system nodes on the ground, in the air, at sea, and in space.

(6) Active protection. Active protection includes preemptive actions taken to support future operations and will utilize integrated capabilities to provide proactive solutions to detect and act against threats. Active protection includes preemptive actions which inherently utilize offensive capabilities. Preemptive actions will identify and defeat threats by the employment of lethal and nonlethal capabilities prior to friendly operations being affected. Future active protection capabilities must be integrated and seamlessly operate with each other. Integration of defense systems must include networked C2, communications, computers, and lethal and nonlethal systems. Automated systems, improved sensors, and robotics, are examples of some future integrated capabilities that will provide future active protection.

(7) Multi-partner protection. This includes the integration of protection to joint forces, interagency operations, and multinational partners. Joint protection utilizes interdependencies for AMD, homeland defenses, defense of installations, and information protection. Within the context of this document joint protection interdependencies will also address environmental considerations, combating weapons of mass destruction, health services support, and personnel recovery. Interagency protection consists of protecting the domestic civil population and infrastructure from aggression and attacks. It must also protect non-government and government

personnel that support future Modular Force operations. Multinational protection consists of protecting foreign personnel and their infrastructure. It also consists of the integration of coalition and U.S. military interdependencies and supports the training of friendly protection personnel and units.

c. Capability statements are outlined in table 3-2.

3-7. Move Seabasing Capabilities

a. TRADOC Pam 525-3-6 describes how the future Modular Force conducts operational maneuver from strategic distances to secure positions of advantage for prompt engagement of the enemy in operations that may often be of uncertain scope and duration. The Army approaches the overall requirements for strategic responsiveness through a "prompt and sustained framework" in concert with its Title 10 mission. Organized into lighter, smaller, but more capable formations, the future Modular Force exploits all available air and sea lift, both military and commercial. Fielding of advanced lift platforms not dependent on improved airfields and seaports will enable formations to deploy in combat ready unit configurations with integrated sustainment, in a matter of days rather than weeks, with units prepared for immediate employment in accordance with a deploy=employ paradigm that minimizes requirements for RSO&I.

b. Many of the themes within TRADOC Pam 525-3-3 relate to seabasing operations and are listed below.

(1) A prompt and sustained response, which includes speed and effectiveness, standardized, modular, pre-configured deployment packages, rapid force alert, assembly, and load-out, and deployment in a ready-to-fight configuration. It also includes minimum intermediate staging and transshipping (ideal movement would be fort to tactical assembly area), minimum RSO&I on arrival, integrated sustainment to enable initial self-sufficiency in short-term operations, easy force flow re-configurability, and low vulnerability to flow interruption. Finally, a prompt and sustained response includes multiple secure theater entry points, high throughput, including directly to forward operating areas, use of offset seaport and airfield facilities, and network enabled logistics.

(2) Operational agility includes extended range, payload, and speed, movement of crews, fighting platforms, and munitions in a single aircraft, broad variety of landing areas, reduced upload and offload, time on ground, and internal loading. It also includes capability thru manning for 24-hour operations, operations from dispersed bases, air refueling; simplified on-ground refueling, re-supply operations by air with unit-configured supplies, and refueling of like aircraft and ground vehicles. Finally, operational agility includes medical evacuation and back-haul after offload, rapid shift of sustaining operations across multiple locations, survivability against an array of air and ground-based threats, and sea based platforms for operational agility within littoral regions.

c. Capability statements are outlined in table 3-2.

3-8. Sustain Seabasing Capabilities

a. TRADOC Pam 525-4-1 describes how to meet the challenges of supporting increasingly distributed operations, sustainment planning and execution will be integrated into the operations process. The potential loss of secure ground lines of communication will result in more reliance on air- and sea- based delivery platforms. The demand-driven sustainment paradigm will place a premium on the direct delivery of tailored packages to the tactical level combined with demand reduction resulting from improvements in equipment and new technologies. The operational distribution system must be capable of managing and controlling multi directional flow to ensure that the retrograde, redirection, and redistribution of commodities provides for the operational and tactical imperative.

b. Many of the key ideas within TRADOC Pm 525-4-1 relate to seabasing operations and are listed below.

(1) A single joint capable network-enabled logistics system. Improves and enhances lines of communications across highly distributed noncontiguous operations occurring in multiple OEs simultaneously.

(2) High-speed, precision, accuracy, visibility, and centralized supply chain management with minimum essential forward stockage and reachback capabilities. Multidirectional flow of stock tracked from origination source to point of employment or consumption, optimizes resource re-direction when required.

(3) Interdependent, capabilities based, modular, network-enabled organizations with increased commonality of equipment and organizational designs. Reduces sustainment requirements, mitigating the effects of distance, time, simultaneity, and the complexity of operations.

(4) Highly mobile systems, advanced distribution platforms, precision delivery systems, and state-of-the-art C2. Reduces personnel risks through robotics and reduces redundancy through joint enabled, combat integrated command systems. Increases utilization and enhances predictability.

(5) Continuous support through global, integrated management, and sourcing of Army, joint, and combined partnerships. Reduces competition for like resources and maximizes host nation and Logistics Civilian Augmentation Program support to the joint force. Integrates decision cycles and supporting data.

c. Capability statements are outlined in table 3-2.

**Table 3-2
Army Capability Statements**

Army Functional Concept	Army Capability Statement #	Capability Statement	Related CBA SWG Statements
TRADOC Pam 525-3-3 Battle Command	1	Provide net-centric, collaborative environment that enables dynamic, mobile, and distributed, units and platforms to operate from a sea base while maintaining a common operating picture, able to exercise battle command on the move and continuous links to other joint systems. Primary FCB, net-centric.	4
TRADOC Pam 525-3-3 Battle Command	2	Provide collaborative preparation and planning to include course of action development, virtual rehearsals, and simulations with ability to conduct en route planning and rehearsals on all deployment and employment systems and platforms. Primary FCB, C2.	20
TRADOC Pam 525-3-3 Battle Command	3	Improve force operational maneuver through exploitation of information systems to provide a near-real time operating picture. Primary FCB, force application.	24
TRADOC Pam 525-3-3 Battle Command	4	Provide on-scene and rapidly deployable integrated C2 and ISR systems that is interoperable and able to link into joint and select multinational systems, scalable to mission requirements. Primary FCB C2.	6
TRADOC Pam 525-2-1 See	1	Access to integrated relevant intelligence on friendly, enemy, interagency, multinational forces with full access at the National, joint, and Army levels at all echelons of command. Primary FCB, battlefield awareness.	15
TRADOC Pam 525-2-1 See	2	Ability to collect, manage, process and fuse intelligence in a robust, collaborative, net-centric environment to provide a near real time picture of the OE. Primary FCB, net-centric.	No related CBA SWG capability statements.
TRADOC Pam 525-2-1 See	3	Ability to access, collect, and process data for an integrated joint sensor network. Primary FCB, battlefield awareness.	No related CBA SWG capability statements.
TRADOC Pam 525-2-1 See	4	Ability to access, collect, process and fuse joint targeting and effects data to provide a responsive strike capability. Primary FCB, battlefield awareness.	No related CBA SWG capability statements.
TRADOC Pam 525-2-1 See	5	Provide ISR to the force operating in the JOA from all joint sources at the tactical, strategic and national level. Primary FCB, battlefield awareness.	11
TRADOC Pam 525-2-1 See	6	Ability to conduct distributed, collaborative en route and on-the-move mission planning and rehearsals. Primary FCB, battlefield awareness.	No related CBA SWG capability statements.
TRADOC Pam 525-2-1 See	7	Ability to collect, manage, process and fuse sustainment data in to a near real time COP. Primary FCB, battlefield awareness.	No related CBA SWG capability statements.
TRADOC Pam 525-2-1 See	8	Ability to manage, access, store, and share data through a robust net-centric system to provide effective information management and data mining. Primary FCB, net-centric.	No related CBA SWG capability

			statements.
TRADOC Pam 525-3-4 Strike	1	Provide joint and multinational integrated highly maneuver fires of precision munitions from the sea that enable greater loiter time, extended ranges, multi-tailored effects, and faster delivery options. Primary FCB, force application.	17
TRADOC Pam 525-3-4 Strike	2	Provide joint and multinational joint integrated strike operational training maritime environment. Primary FCB, training.	No related CBA SWG capability statements.
TRADOC Pam 525-3-4 Strike	3	Provide continuous net-work centric environment that provides near real time SA and SU and ensures seamless interfaces between space, maritime and land systems to enable strike operations from the sea. Primary FCB, net-centric.	No related CBA SWG capability statements.
TRADOC Pam 525-3-4 Strike	4	Conduct simultaneous offensive air and integrated fires operations against multidimensional threats (conventional as well as irregular) using both lethal and nonlethal means. Primary FCB, force application.	10, 27
TRADOC Pam 525-3-4 Strike	5	Provide a fully integrated joint battle command system that provides strike and knowledge connectivity and interoperability. Primary FCB, net-centric.	No related CBA SWG capability statements.
TRADOC Pam 525-3-4 Strike	6	Ability of force to conduct mobile manned and unmanned aviation strike operations at extended ranges from the sea. Primary FCBs, force applicant and focused logistics.	12, 14, 18
TRADOC Pam 525-3-4 Strike	7	Ability of the force to sustain and support distributed joint strike operations from the sea. Primary FCB: force application.	18
TRADOC Pam 525-3-5 Protect	1	Conduct simultaneous offensive and defensive operations against multi-dimensional threats (conventional as well as irregular). Primary FCBs, force application, and protection.	10, 22, 27
TRADOC Pam 525-3-5 Protect	2	Provide capability to detect and facilities for recovery, decontamination, and reconstitution of CBR equipment and personnel. Primary FCB, force management.	30
TRADOC Pam 525-3-5 Protect	3	Provide capability for improved obstacle countermeasure; increased mobility and maneuver; secure air corridors to increase maneuver and decrease threats and enable the rapid transport of forces to prevent attacks and defeat an adversary. Primary FCB, protection.	No related CBA SWG capability statements.
TRADOC Pam 525-3-5 Protect	4	Provide scalable C2 system, with reliable communications capability in order to: observe, monitor, and track hostile activities; provide medical surveillance and health monitoring; provide reliable information systems to support protection operations; and provide near-real time combat identification of friend, foe, and noncombatant. Primary FCB, net-centric.	30
TRADOC Pam 525-3-5 Protect	5	Ability to conduct joint integrated training in a maritime environment to exercise integration of joint protection systems. Primary FCB, training.	No related CBA SWG capability statements.

TRADOC Pam 525-3-5 Protect	6	Provide the force a base at sea that provides force protection against missile, air, surface and sub-surface threats to forces operating with in the sea base area of influence without reliance on land bases within the JOA. Primary FCBs, force management, and protection.	9, 22
TRADOC Pam 525-3-6 Move	1	Provide an overseas presence through forward deployed rapid response forces and prepositioned materiel. Primary FCB, force management.	2
TRADOC Pam 525-3-6 Move	2	Ability to provide command and control throughout the deployment process with the ability to link to the joint battle command system, maintain a common operating picture, maintain TAV and ITV and conduct en route planning and rehearsals. Primary FCB, net-centric.	No related CBA SWG capability statements.
TRADOC Pam 525-3-6 Move	3	Provide an integrated deployment training process to provide a collective and functional training on the joint deployment process, sea base operations and distributed sustainment from a sea base. Primary FCB, training.	No related CBA SWG capability statements.
TRADOC Pam 525-3-6 Move	4	Provide increased speed of force closure from strategic and operational distances to the sea base or to austere entry point in the JOA using high-speed austere-access surface and air capabilities with minimal RSO&I requirements. Primary FCB, focused logistics.	3
TRADOC Pam 525-3-6 Move	5	Ability of combat ready forces and sustainment to rapidly move to and from the sea base to austere or distributed locations within the JOA via high-speed austere-access capable surface and air means. Primary FCB, focused logistics.	13
TRADOC Pam 525-3-6 Move	6	Ability to protect forces within the sea base and while moving to and from the sea base to austere ports or distributed locations in the JOA. Primary FCB, focused logistics.	No related CBA SWG capability statements.
TRADOC Pam 525-4-1 Sustain	1	Provide and integrate persistent joint logistics C2 to sustain joint force operations while operating from a joint sea base. Primary FCB, focused logistics.	5
TRADOC Pam 525-4-1 Sustain	2	Provide integrated joint training to leaders, managers and Soldiers on operations while at sea. Primary FCB, training.	No related CBA SWG capability statements.
TRADOC Pam 525-4-1 Sustain	3	Provide net-centric, collaborative environment that enable dynamic, mobile, distributed logistics C2 through a logistics COP and integrates into joint systems and platforms. Primary FCB, net-centric.	4
TRADOC Pam 525-4-1 Sustain	4	Provide logistics C2 that includes; real time health surveillance; integrated net-centric human resource, religious, legal and postal operations; integrated net-centric monitoring of embedded system electronics; and TAV and ITV. Primary FCB, focused logistics.	19
TRADOC Pam 525-4-1 Sustain	5	Provide continuous support and sustainment with little or no reliance on land bases within the JOA. Primary FCB, focused logistics.	1

TRADOC Pam 525-4-1 Sustain	6	Provide ability to sustain forces from the sea base to inland objective at operational depths from OTH by air and surface means to include over the shore, shallow water, precision air drop, austere ports and airfields and world class ports and airfields. Primary FCB, focused logistics.	14, 16
TRADOC Pam 525-4-1 Sustain	7	Evacuate remains to the sea base by sea or air and provide ability to process, store and evacuate remains. Primary FCB, focused logistics.	No related CBA SWG capability statements.
TRADOC Pam 525-4-1 Sustain	8	Capability to receive, account, handle, store, transfer, deliver, and retrograde standardized inter-modal packaging and break bulk of all classes of supply to distributed locations. Primary FCB, focused logistics.	26
TRADOC Pam 525-4-1 Sustain	9	Provide maintenance during assembly, employment, replenishment, recovery, repositioning, and reconstitution of forces from the sea base. Primary FCB, focused logistics.	28
TRADOC Pam 525-4-1 Sustain	10	Evacuate casualties to and from the sea base by air and sea. Primary FCB, focused logistics.	21
TRADOC Pam 525-4-1 Sustain	11	Provide theater hospitalization support within the sea base. Primary FCB, focused logistics.	23
TRADOC Pam 525-4-1 Sustain	12	Provide ability to receive, assemble, transfer and cross-deck forces (personnel and equipment up to 30 short tons) and sustainment, tailor force packages at sea, and enable immediate integration and employment of personnel, equipment, and supplies. Primary FCB, focused logistics.	7, 8

Chapter 4 Bridging Current to Future Capabilities

4-1. Introduction

a. This chapter identifies the seabasing capabilities required by the future Modular Force and describes the systems that enable the achievement of those capabilities. Chapter 2 described the plan for Army seabasing operations as "...being underpinned by change in DOTMLPF..." and this is evident in the enablers identified in this chapter. The description of the enablers is organized by Army functional concept area and divided into three timeframes. Figure 4-1 depicts the capability development blocks that represent the incremental steps associated with achieving the future Modular Forces' required seabasing capabilities. These blocks are timeframes as defined by the DOD Program Objective Memorandum (POM).

b. Bridging the gap between current and future seabasing capabilities is a complex task involving national and civil agencies, the joint community, and numerous Army proponents. As such, the future capabilities described in this chapter, and the associated solution components, are crafted in the "best possible" scenario. They represent the optimum seabasing facilities, personnel, organizations, and materiel for the timeframe, the threat, across the full spectrum of operations.

CAPABILITY DEVELOPMENT BLOCKS



Figure 4-1. Capability Development Blocks

4-2. Assessment of Battle Command Related Seabasing Enablers

a. TRADOC Pam 525-3-3 encompasses a commander’s need to continually address changing situations and missions by dynamically linking functions within and across the joint operation environment. Fundamental to meeting this need is a secure global communication and data infrastructure employing a robust set of systems, facilities, and organizations comprised of well trained Soldiers.

b. TRADOC Pam 525-3-3 enablers (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) The Warfighter Information Network–Tactical (WIN-T) is the Army's deployed communications network from operational to tactical level. WIN-T's elements will be modular in design, scaleable to the users' requirements, and capable of adapting to the evolution of the war fight. WIN-T will evolve over time from its current capability of providing networking at the halt to full networking on the move. TRADOC Pam 525-7-18 will provide a more detailed discussion of emerging WIN-T capabilities (Battle Command 1).

(b) The Army Battle Command System (ABCS) is the digital command, control, communications, computers, and intelligence (C4I) system that is automating the battlefield Army. It is designed to leverage a mix of fixed, semi-fixed, and mobile networks. It is also designed for inter-operability with U.S. theater, U.S. joint, and coalition combined C2 systems. ABCS combines the following into a single system (Battle Command 1 through 4).

- Maneuver Control System. Allows the operator to define routes and view overlays to provide situational awareness (*Battle Command 1 through 4*).
- AMD workstation. Provides Soldiers with an air defense picture, and supports the surface launched advanced medium range air-to-air missile air defense artillery

- system by providing an automated defense planning capability for deployed units (Battle Command 1 through 4).
- All Source Analysis System. Analyzes incidents and help determine the patterns of improvised explosive device related incidents. A commander can determine locations that are typical for these attacks, so that they know to warn their Soldiers of such a threat (Battle Command 1 through 4).
 - Advance Field Artillery Tactical Data System (AFATDS). The command, coordination, communication, and computing systems used by the fires war fighting function to plan and execute fires and effects at operational and tactical levels of command within the current and future forces. It provides state-of-the-art tactical automation support to all echelons, from firing unit through theater level, at Army, the Marine Corps, naval firing platforms, and joint C2 centers and on board Navy command and amphibious assault ships (Battle Command 1 through 4).
 - Force XXI Battle Command, Brigade and Below (FBCB2) Blue Force Tracker (BFT) system. Uses satellite and terrestrial communications technology to track and display friendly vehicles and aircraft that appear on a computer screen as blue icons over a topographical map or satellite image of the ground. Commanders and Soldiers can add red icons, enemy forces that show up as enemy red icons on the screen, and are broadcast simultaneously to all the other FBCB2 BFT users on the battlefield. FBCB2 is a digital, battle command information system that provides integrated, on-the-move, timely, and relevant information to tactical combat, combat support and combat service support leaders and key C2 nodes. Timeliness, accuracy, and completeness of relevant tactical and operational information are the foundation of battle command. FBCB2 provides leaders a capability for selecting, managing, and assimilating relevant data and information. FBCB2 uses multiple communications methods to transmit data which include the enhanced position and location system, Single Channel Ground and Airborne Radio System (SINCGARS), and L-band satellite. Though an Army program, FBCB2 is used by all Services in the DOD (Battle Command 1 through 4).
 - Battle Command Sustainment and Support System (BCS3). Integrates multiple data sources into one program and provides commanders with a visual layout of battlefield logistics. The BCS3 is the Army's maneuver sustainment C2 system—a logistics fusion center, used by other Services and agencies thereby enabling full spectrum JIIM operations. BCS3 is the logistics element of the ABCS. BCS3 operates on a windows-based, lightweight, portable, (such as a laptop), computer system that is a commercial off-the-shelf product. BCS3 provides the logistics component of combat power for the running estimate of the battle command top down focus areas as defined by the Chief of Staff of the Army. BCS3 aligns sustainment, ITV, and force data to provide actionable logistics information that aids commanders from theater to brigade in making critical logistics related decisions. Further, BCS3 gives the warfighter access to the latest available information on a map-centric view with logistics common data, ITV features, log input to the combat power computations and ABCS provided data. BCS3 is employed throughout the U.S. Army, the Marine Corps, joint commands, and the Department of Homeland Security (Battle Command 1 through 4).

- Combat Terrain Information System. Provides commanders with automated terrain analysis, terrain database management, and graphics reproduction (Battle Command 1 through 4).
- Tactical Airspace Integration System. A mobile communications and digitization battlefield automated system deployable to any theater of operations to perform both Army airspace C2 and air traffic services requirements. It is capable of providing a direct link to the theater air ground system through interface with the joint force air component commander's (JFACC) automated airspace planning and communication systems (Battle Command 1 through 4).
- Global Command and Control System–Army (GCCS-A). Provides a common picture of Army tactical operations to the joint and coalition community, and facilitates interoperability of systems across joint and Army (Battle Command 1 through 4).
- Integrated Meteorological System. Provides commanders at all echelons with an automated weather system to receive, process, and disseminate weather observations, forecasts, and weather and environmental effects decision aids for ABCS (Battle Command 1 through 4).
- Integrated system control. Provides automated, theater-wide network operations capabilities that network operations Soldiers use to manage multiple tactical networking and communications systems in support of battlefield operations (Battle Command 1 through 4).
- Joint Warning and Reporting Network (JWARN). Provides joint forces with a standardized CBRN warning and reporting system and the comprehensive analysis and response capability to enhance contamination avoidance and to minimize the effects of CBRN attacks or accidents and incidents. The JWARN (phase I) uses CBRN warning technology to collect, analyze, identify, locate, report and disseminate CBRN threat information. Compatible and integrated with joint Service C4I systems, JWARN will be located in C2 centers for use by CBRN defense specialists and other designated personnel. It will transfer data automatically to and from the actual detector/sensor and will provide commanders with analyzed data for disseminating warnings to the battlefield level. JWARN provides data processing, planning and reports as well as access to specific CBRN information to improve the efficiency of limited CBRN personnel assets (Battle Command 1 through 4).

(c) The Distributed Common Ground System–Army (DCGS-A). A family of fixed and deployable multi-source ground processing systems that support a range of intelligence, surveillance, and reconnaissance systems such as national and commercial satellite systems, high altitude reconnaissance aircraft (U-2), UAS, and F-16 aircraft theater airborne reconnaissance systems. The U-2 Management Directorate at Robins Air Logistics Center provides upgrade and sustainment of operational intelligence support systems to meet DCGS operational requirements for deployable ground stations (Battle Command 1, 3, 4).

(d) SINCGARS. The primary means of C2 for infantry, armor, and artillery units. It comes in both a man pack and all vehicular configurations. It is able to transmit and receive voice, tactical data, and record traffic messages and is consistent with North American Treaty Organization's interoperability requirements (Battle Command 1).

(e) The Combat Service Support Automated Information System Interface (CAISI) very small aperture terminal provides commercial and tactical network connections for logistics standard Army management information systems users that can be provided from a variety of locations on the battlefield, ranging from the maneuver battalion combat trains to the echelon above corps fixed facilities within the tactical theater, back to CONUS based sustainment activities. This system provides the means for all logistics support to the warfighter in the execution of their mission (Battle Command 1).

(f) The command post of the future runs on a commercial off-the-shelf computer workstation with three screens that provide a shared environment that distributes, manipulates and displays current operational information about the locations of all friendly units, known enemy forces, and relevant operational plans. Information, including images and data, is shown in two and three dimensions across the distributed workspace. Commanders can be better informed and thus make better decisions, by sharing situational awareness and collaborating with headquarters (Battle Command 2, 3).

(g) Satellite communications (SATCOM) consists of both commercial and military communication satellites stationed in space for the purposes of telecommunications. Modern communications satellites use geostationary orbits, Molniya orbits (highly elliptical satellite orbit, such a satellite spends most of its time over a designated area of the planet), or low polar Earth orbits (Battle Command 1).

(2) Mid-Term

(a) WIN-T. Refer to previous section for definition of this capability (Battle Command 1).

(b) The ABCS will be upgraded and will continue to provide digital C4I system that is automating the battlefield Army. It is designed to leverage a mix of fixed, semi-fixed, and mobile networks. It is also designed for inter-operability with U.S. theater, U.S. joint, and coalition combined C2 systems (Battle Command 1 through 4).

(c) The DCGS-A continues to provide improvements and upgrades during this period (Battle Command 1, 3, 4).

(d) Joint Tactical Radio System (JTRS) provides joint net-centric, networked interoperable, line-of-sight (LOS) and beyond-line-of-sight (BLOS), narrowband and wideband, voice, data, and video dissemination tactical communications for current and future joint command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) networks. The JTRS lays the foundation for achieving network connectivity across the electromagnetic spectrum and provides the means for digital information exchanges, both vertically and horizontally, between joint warfighting elements, while enabling connectivity to homeland defense, civil, national authorities, and coalition forces as applicable. JTRS is essential for the Army achieving its goal of creating a digitized battlefield and transformed force. The JTRS is the next generation tactical radio, which provides a secure, multiband, multi-mode software programmable digital radio to meet emerging and anticipated C4ISR requirements for

the warfighter. The JTRS is key to implementing a mobile, flexible, on the move, networking infrastructure for passing voice, data, and video to commanders operating in a wide-spread, dynamic environment. The Army, as executive agent and lead Service, is leading the joint effort to develop and integrate this next generation tactical radio (Battle Command 1).

(d) The CAISI very small aperture terminal continues to provide improvements and upgrades during this period (Battle Command 1).

(e) SATCOM continues to provide improvements and upgrades during this period (Battle Command 1).

(f) The Harbormaster Command and Control Center (HCCC) provides the command and control tools, sensors, technical connectivity, and physical configuration needed to properly manage Army watercraft assets to ensure that watercraft delivered sustainment is responsive to warfighter requirements. The HCCC platforms will be readily deployable by strategic and intratheater airlift and sealift assets such as the JHSV. The HCCC platforms will be tactically mobile and capable of conducting split-based operations at the operational and tactical levels. The HCCC will possess interoperable C4ISR systems capable of receiving and sending up to SECRET information and data.

(3) Far-Term

(a) GIG. A net-centric system operating in a global context to provide processing, storage, management, and transport of information to support all DOD, national security, and related intelligence community missions and functions strategic, operational, tactical, and business in war, in crisis, and in peace. GIG capabilities will be available from all operating locations: bases, posts, camps, stations, facilities, mobile platforms, and deployed sites. The GIG will interface with allied, coalition, and non-GIG systems. The overarching objective of the GIG vision is to provide the President and Secretary of Defense with warfighters, DOD personnel, intelligence community, business, policymakers, and non-DOD users with information superiority, decision superiority, and full-spectrum dominance (Battle Command 1).

(b) The ABCS begins to migrate under the net-enabled command and control (NECC) to provide digital C4I system that is automating the battlefield Army (Battle Command 1 through 4).

(c) The NECC is the DOD principal C2 information technology. NECC will enable decision superiority via advanced collaborative information sharing achieved through vertical and horizontal inter-operability. The NECC capabilities are defined by joint mission capability packages. NECC applications and functions are based on GIG enterprise services enabling shared access to Service, agency, and joint-provided data sources. NECC is a systems integrator, replacing the global C2 system—joint (GCCS-J) and Service variants as the DOD principal C2 capability supporting the National military command system and JFCs. The NECC integrates databases, servers, client workstations, local area networks, and computer software into an open, scalable, net-centric single architecture while maintaining net-centric operations and warfare reference model and net-centric enterprise services compliance in accordance with the joint

technical architecture. The NECC is dependent upon net-centric enterprise services to enable integration and interoperability of various systems in a net-centric environment (Battle Command 1 through 4).

(d) Joint battle command–platform (JBC-P). Provides integrated, on-the-move, timely, relevant C2 and SA information to commanders and leaders at all echelons. It enables units to become more survivable and more lethal. The JBC-P contributes to the SA component of combat identification resulting in improved combat effectiveness and reduced risk of fratricide (Battle Command 1 through 3).

(e) The DCGS-A continues to provide improvements and upgrades during this period (Battle Command 1, 3, 4).

(f) The JTRS will continue to provide joint net-centric, networked interoperable, LOS and BLOS, narrowband and wideband, voice, data, and video dissemination tactical communications for current and future joint C4ISR networks (Battle Command 1).

(g) SATCOM continues to provide improvements and upgrades during this period (Battle Command 1).

(h) HCCC. Refer to previous section for enabler definition. (Battle Command 2 through 4).

4-3. Assessment of See Related Seabasing Enablers

a. TRADOC Pam 525-2-1 focuses on the contribution of data acquisition, transformation of data into information and knowledge, and providing information and data to the future Modular Force. The continuous acquisition and synthesis of data and information from joint and interagency capabilities, coalition partners, and non-traditional sources permits the future Modular Force to maintain an accurate understanding of the OE.

b. TRADOC Pam 525-2-1, systems (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) ABCS. Refer to previous section for enabler definition. (See 1, 2, 4 through 8).

(b) The GCCS-J integrates Service and agency developed mission application and functional capabilities delivered to the joint community. It is the mission application and functional capabilities, integrated together with the core infrastructure that provides a joint C2 capability supporting the following mission areas: force employment, force readiness, force sustainment, force projection (planning and deployment, redeployment) force protection, situational awareness, intelligence, and cross-functional infrastructure (See 1, 3).

(2) Mid-Term

(a) The ABCS systems will be upgraded and will continue to provide digital C4I system that is automating the battlefield Army. It is designed to leverage a mix of fixed, semi-fixed and mobile networks. The ABCS is also designed for interoperability with U.S. theater, U.S. joint, and coalition combined C2 systems (See 1, 2, and 4 through 8).

(b) Upgrades to the GCCS-J will continue to integrate Service and agency developed mission application and functional capabilities delivered to the joint community (See 1, 3).

(c) The logistics decision support system (LDSS) is a fully integrated service of the battle command system that provides logistics decision course of action analysis. The LDSS aggregates platform health and availability across the brigade and provides near real time readiness for C2 planning purposes. The LDSS provides for a reach capability beyond the brigade through the global combat support system–Army (GCSS-A) and the GIG to provide users visibility and status of resources from theater to sustainment and supply support activities in CONUS. LDSS assist leaders with future operation sustainment planning by continually assessing the overall sustainment posture of platforms, Soldiers, and units (See 7).

(d) The battle command mission execution is a collection of functional software applications which empower tactical commanders to execute combined arms maneuver more effectively than any in history. It is the same system that controls wartime operations and regulates activities in garrison training and is a fully integrated component of the battle command network (See 8).

(3) Far-Term

(a) LandWarNet is the Army's portion of the GIG. There are currently limited capabilities within the institutional training environment to replicate LandWarNet to support leader training. A LandWarNet capability would provide an environment to support leader training at the technical, planning, and execution level. This capability would also support training staff processes and C2, but the primary purpose of this capability would be to support training for enlisted, warrant officers, and officers who plan, establish, manage, monitor, and evolve communications, collaboration, and information sharing capabilities in support of operations and maneuver commanders (See 1 through 6, 8).

(b) FORCEnet is the operational construct and architectural framework for naval warfare to integrate warriors, sensors, networks, C2, platforms, and weapons into a networked, distributed combat force, scalable across the spectrum of conflict from seabed to space and sea to land. It provides the naval C2 component for Sea Power 21, expeditionary warfare, and the Navy's portion of the GIG (See 1 through 6, 8).

(c) GIG. Refer to previous sections for enabler definition (See 1 through 6, 8).

(d) NECC. Refer to previous sections for enabler definition (See 1 through 8).

4-4. Assessment of Strike Related Seabasing Enablers

a. TRADOC Pam 525-3-4 focuses on future Modular Force fires and effects at strategic, operational, and tactical levels, to include aviation interdiction attack. The *Strike* functional concept incorporates the effects of fires produced by kinetic capabilities as well as effects achieved by other means such as, IO, psychological operations, and civil military operations, and space control. Table 4-3 lists the current, near-term and far-term strike seabasing enablers.

b. TRADOC Pam 525-3-4 enablers (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) The MQ-1 Predator UAS. The Predator is a medium-altitude, long-endurance, remotely piloted aircraft. Its primary mission is interdiction and conducting armed reconnaissance against critical, perishable targets. When the Predator is not actively pursuing its primary mission, it acts as the JFACC-owned theater asset for reconnaissance, surveillance, and target acquisition in support of the JFC (Strike 1, 6).

(b) GCCS-A. Refer to previous entries for definition of this capability (Strike 3, 5).

(c) WIN-T. Refer to previous entries for definition of this capability (Strike 3).

(d) CCSG. CSGs could be employed in a variety of roles, all of which would involve the gaining and maintenance of sea control: protection of economic and or military shipping; protection of a Marine amphibious force while en route to, and upon arrival in, an amphibious objective area; and establishing a naval presence in support of national interests. Typically, a CSG might have the following capabilities (Strike 4).

- A carrier. The carrier provides a wide range of options to the U.S. government from simply showing the flag to attacks on airborne, afloat and ashore targets. Because carriers operate in international waters, its aircraft do not need to secure landing rights on foreign soil. These ships also engage in sustained operations in support of other forces.
- A guided missile cruiser (CG). A multi-mission surface combatant. Equipped with Tomahawk missiles for long-range strike capability.
- Two guided missile destroyers (DDG). Multi-mission surface combatants, used primarily for anti-air warfare (AAW).
- An Attack submarine. In a direct support role seeking out and destroying hostile surface ships and submarines.
- A combined ammunition, oiler, and supply ship. This provides logistic support enabling the Navy's forward presence; on station, ready to respond.

(e) ESG. The ESG centers on the flexibility and readiness of a combined expeditionary unit and an amphibious readiness group. The total ESG provides operational freedom and expanded warfare capabilities, not only by land with embarked Marines, but at sea, as well. The

exact make-up of an ESG is in the process of being defined, but may consist of the following capabilities (Strike 4).

- A landing helicopter amphibious (LHA) or landing helicopter dock ship. Primary landing ships, resembling small aircraft carriers, designed to put troops on hostile shores. In a secondary role, using an attack, vertical ((AV)-8B) Harrier aircraft and anti-submarine warfare helicopters, these ships perform sea control and limited power projection missions.
- A landing platform dock ship. Warships that embark, transport, and land elements of a landing force for a variety of expeditionary warfare missions.
- A landing ship dock. This ship supports amphibious operations including landings via LCAC, conventional landing craft and helicopters, onto hostile shores. The two classes of landing ship docks are the Harpers Ferry class, and the Whidbey Island class.
- A CG.
- A DDG.
- A frigate. Primarily for anti-submarine warfare.
- An attack submarine. In a direct support role seeking out and destroying hostile surface ships and submarines.
- A Marine expeditionary unit (special operations capable). Missions range from crisis response to major operations and campaigns. Normally consists of one battalion landing team, one reinforced squadron or air combat element, and one Marine logistics element.
- An AV-8B Harrier II. Attack and destroy surface and air targets under day and night visual and infrared conditions.
- A Bell Boeing V-22 Osprey tilt rotor aircraft. Medium lift assault aircraft primarily used to move troops.
- A utility helicopter (UH-1N Huey). For use as C2.
- CH-53E Super Stallion helicopters. Transportation of heavy equipment, supplies and troops during the ship-to-objective movement of an amphibious assault and during subsequent operations ashore.
- CH-46D Sea Knight helicopters. Medium lift assault helicopter, primarily used to move cargo and troops
- Attack helicopter (AH-1W) Super Cobra helicopters. Provides fire support and fire support coordination to the landing force during amphibious assaults and subsequent operations ashore.

(f) CG. CGs perform primarily in a battle force role. These ships are multi-mission (air warfare, undersea warfare, and surface warfare) surface combatants capable of supporting carrier battle groups, amphibious forces, or of operating independently and as flagships of surface action groups. Cruisers are equipped with Tomahawk cruise missiles giving them additional long-range strike mission capability (Strike 4).

(g) DDG. DDGs operate in support of carrier battle groups, surface action groups, amphibious groups and replenishment groups. Destroyers primarily perform anti-submarine warfare duty while guided missile destroyers are multi-mission (AAW, anti-submarine warfare,

and anti-surface warfare) surface combatants. The addition of the Mk-41 vertical launch system or Tomahawk armored box launchers has greatly expanded the role of the destroyer in strike warfare (Strike 4).

(h) Joint land attack cruise missile defense elevated netted sensor system (JLENS) (Strike 5).

- The mission of the JLENS is to provide elevated, persistent, OTH surveillance and fire control quality data on Army and joint networks enabling protection of the U.S., allied, and coalition forces. It is also critical for protecting geo-political assets from CGs, aircraft, UAS, tactical ballistic missiles, large caliber rockets, and surface moving targets.
- JLENS is a critical part of the Army's future IAMD architecture and is a joint Service interest program. JLENS is in the system development and demonstration phase of development.
- A JLENS "orbit" is comprised of two systems: a fire control radar system and a surveillance radar system. Each is comprised of a 74-meter tethered aerostat, a mobile mooring station, a communication and processing group, and associated ground support equipment. In addition to the components common to both systems, surveillance radar is integrated into the surveillance radar system and fire control radar (FCR) is integrated into the fire control radar system.
- The JLENS acquisition program is organized by prime items described later. The JLENS mission is achieved by both the surveillance radar system and fire control radar systems operating as an orbit; however, each system can operate autonomously and contribute to supporting the JLENS mission.
- When configured in its primary mode of operation, the JLENS uses its advanced sensor and networking technologies to provide 360-degree area surveillance and sectored precision tracking of land attack cruise missiles and other types of aircraft.
- When operating as an orbit, the surveillance radar system generates surveillance information that enables the FCR system to more readily search for, detect, and track low altitude cruise missiles and other types of aircraft with minimal impact on FCR system operation. Once the FCR system develops tracks, this information is provided to the tactical data networks so other network participants can assess the threat significance and assign systems to counter the threat.
- The FCR system data supports extended engagement ranges by these other network participants, including surfaced launched advanced medium-range air-to-air missile, Patriot advanced capability-3, and standard missile surface based weapon systems by providing high quality track data on targets that may be terrain masked from surface based radar systems.
- JLENS contributes to a single integrated air picture capability by distributing surveillance (track and identification data) via the Link-16 Joint Tactical Data Network and the Cooperative Engagement Capability Network. The JLENS FCR system will support the target identification process of other network participants by providing classification, discrimination, and identification data via the distributed C2 network.

(i) GCCS-J. Refer to previous entries for definition of this capability (Strike 5).

(j) AH-1 Super Cobra. The AH-1 is a twin-engine attack helicopter. It is the backbone of the U.S. Marine Corps's attack helicopter fleet, and will be replaced in service by the AH-1Z upgrade in the next decade. The AH-1 is armed with a 20 millimeter gun and carries a mixture of air-to-ground Hellfire missiles and rockets on four hard points mounted on its stub-wing pylons (Strike 6).

(k) AH-64 Apache. The AH-64 Apache is the Army's primary attack helicopter. It is a quick-reacting, airborne weapon system that can fight close and deep to destroy, disrupt, or delay enemy forces. The principal mission of the Apache is the destruction of high-value targets (Strike 6).

(l) Observation helicopter (OH-58) Kiowa. The most current variant, the OH-58D Kiowa Warrior is a two-seater, four blade, and single engine armed reconnaissance helicopter. The aircraft is 41 feet long and has a mission weight of 5,500 pounds and has skid type landing gear. The OH-58D has an infrared thermal imaging capability and a laser designator, laser rangefinder that can provide autonomous designation for laser-guided precision weapons. The primary mission of the Kiowa Warrior is armed reconnaissance in air cavalry troops and light attack companies. In addition, the Kiowa Warrior may participate in joint air attack operations, air combat, limited attack operations, and artillery target designation. Air-to-air Stinger missiles provide the Kiowa Warrior with protection against threat aircraft (Strike 6).

(m) Predator UAS. Refer to previous entries for description of this capability (Strike 6).

(n) F-22 Raptor. The F-22 will counter the increasing sophistication and threat of hostile air forces and integrated air defense systems in use around the world. This fighter will provide air dominance and a precision ground attack capability for U.S. forces for the next 40 years (Strike 6).

(o) Container delivery system. It is an air drop system capable of delivering up to 2,200 pounds using standard army cargo parachutes and containers. For safety, landing velocity is minimized reducing hazards to personnel and other cargo within the drop zone (Strike 7).

(p) CH-47 Chinook. The CH-47 is a twin-engine, tandem rotor, wheeled helicopter designed for transportation of cargo, troops, and weapons during day, night, visual, and instrument conditions. The aircrafts overall length is approximately 100 feet and has a maximum gross weight of 50,000 pounds. The Chinook's primary mission is moving artillery, ammunition, personnel, and supplies on the battlefield. Additionally it performs rescue, aero-medical, parachuting, aircraft recovery and special operations missions (Strike 7).

(q) CH-53 Sea Stallion. The CH-53D is a medium lift helicopter designed to transport personnel, supplies, and equipment in support of amphibious and shore operations. The CH-53D was ordered in the early 1960s to satisfy a Marine Corps requirement for a heavy lift helicopter. It has since been replaced in the heavy lift mission by the CH-53E Super Stallion. The CH-53D,

along with the CH-46E, is slated for replacement by the V-22 Osprey. The CH-53K will replace the CH-53E starting in the 2015 timeframe. It will have 3 times the lift capacity (27,000 pounds vice 9,000 pounds), dual multipurpose wheeled vehicle external lift capability, and one LAV external at 110 nm radius (Strike 6, 7).

(r) UH-60 Blackhawk. The UH-60 Black Hawk is a twin engine single rotor, wheeled landing gear aircraft and is the Army's front-line utility helicopter. Its primary missions include air assault, air movement, and aero-medical evacuation. The aircraft is 65 feet long and has a maximum gross weight of 22,000 pounds. The UH-60 is designed to carry 11 combat-loaded, air assault troops, and it is capable of moving a 105 millimeter howitzer and 30 rounds of ammunition. In addition, modified Black Hawks operate as C2, electronic warfare, and special operations platforms (Strike 7).

(s) UH-72 Lakota. The UH-72A is the Army's newest light utility helicopter. The UH-72A is a twin engine aircraft with skid type landing gear designed to conduct light general support tasks in permissive, non-combat environments. Those tasks include civil search and rescue, personnel recovery, evacuation, counter-drug and limited civil C2 operations while conducting homeland security. The aircraft is 43 feet long and has a maximum gross weight of just under 8,000 pounds. The UH-72A is capable of carrying 8 troops or two stretchers and a medical crew (Strike 7).

(t) V-22 Osprey. The V-22 is a joint service, multi-mission aircraft with vertical take-off and landing (VTOL) capability. It performs VTOL missions as effectively as a conventional helicopter while also having the long-range cruise abilities of a twin turboprop aircraft. The Osprey is a tilt-rotor aircraft with a 38-foot rotor system and engine and transmission nacelle mounted on each wing tip. It can operate as a helicopter when taking off and landing vertically. Once airborne, the nacelles rotate forward 90 degrees for horizontal flight, converting the V-22 to a high-speed, fuel-efficient turboprop airplane. The wing rotates for compact storage aboard ship. The V-22 is the world's first production tilt-rotor aircraft. Planned purchases include 360 for the Marine Corps, 48 for the Navy and 50 for the Air Force (Strike 6, 7).

(2) Mid-Term

(a) Non line of sight (NLOS) launch system (LS). The NLOS LS provides highly responsive, long-range precision fires capability against moving and stationary, armored and non-armored high value targets in degraded weather conditions and environments with countermeasures present. The NLOS LS consists of a container and launch unit base and sides, the onboard computer and communications system and 15 containerized precision attack missiles with a range of 40 kilometers. It is a self-contained, vertical launcher that can be fired from the ground or the back of a stationary transport vehicle. Once placed into operation, it receives fire missions wirelessly from the AFATDS or the Fire Control System battle command system. The computer and communications system is capable of self-location and contains a battery power supply, radio, antenna and weapon interface along with an intrusion detection system (Strike 1).

(b) ABCS. ABCS systems will be upgraded and will continue to provide digital C4I system that is automating the battlefield Army. It is designed to leverage a mix of fixed/semi-

fixed and mobile networks. It is also designed for inter-operability with U.S. theater, U.S. joint, and coalition combined C2 systems (Strike 3, 5).

- (c) WIN-T. Refer to previous entries for definition of this capability (Strike 3).
- (d) CSG. Improvements and upgrades to the components of the CSG will continue (Strike 4).
- (e) ESG. Improvement and upgrades to the components of the ESG will continue (Strike 4).
- (f) CG. Improvement and upgrades to this class of vessel will continue (Strike 4).
- (g) DDG. Improvement and upgrades to this class of vessel will continue (Strike 4).
- (h) JLENS. The mission of the JLENS is to provide elevated, persistent, OTH surveillance and fire control quality data on Army and joint networks enabling protection of the U.S., allied and coalition forces, as well as critical geo-political assets from cruise missiles and aircraft, UAS, tactical ballistic missiles, large caliber rockets, and surface moving targets. Improvements will continue to provide 360-degree area surveillance and sectored precision tracking of land attack cruise missiles and other types of aircraft (Strike 5).
- (i) GCCS-J. Upgrades to the GCCS-J will continue to integrate Service and agency developed mission application and functional capabilities delivered to the joint community (Strike 5).
- (j) AH-1. Upgrades and improvements will continue (Strike 6).
- (k) AH-64. Upgrades and improvements will continue (Strike 6).
- (l) OH-58. Upgrades and improvements will continue (Strike 6).
- (m) Predator. Upgrades and improvements will continue (Strike 1, 6).
- (n) Joint strike fighter (JSF). The F-35 Lightning II Program (also known as the JSF program) is the DOD focal point for defining affordable next generation strike aircraft weapon systems for the Navy, Air Force, Marines, and allies. The F-35 is the next generation strike fighter bringing cutting-edge technologies to the OE of the future. The JSFs advanced airframe, autonomic logistics information system, avionics, propulsion systems, stealth, and firepower will ensure that the F-35 is the most affordable, lethal, supportable and survivable aircraft ever to be used by so many warfighters across the globe (Strike 6).
- (o) Joint precision air delivery system (JPADS). JPADS allow autonomous delivery of cargo from high altitudes and significant standoff. Para-Flite Incorporated's current systems are capable of deployments to 25,000 feet in altitude and horizontal separations of over 30

kilometers. This separation increases safety for aircrews and enhances the security of forces on the ground. The largest system called MegaFly can carry up to 30,000 pounds (Strike 7).

(p) CH-47. Upgrades and improvements will continue (Strike 7).

(q) CH-53. Upgrades and improvements will continue (Strike 7).

(r) UH-60. Upgrades and improvements will continue (Strike 7).

(s) UH-72. Upgrades and improvements will continue (Strike 7).

(t) V-22. Upgrades and improvements will continue (Strike 7).

(3) Far-Term

(a) The container and launch unit. The system will continue to be fielded and upgraded during this period (Strike 1).

(b) GIG. Refer to previous entries for definition of this enabler (Strike 3, 5).

(c) NECC. Refer to previous entries for definition of this enabler (Strike 3, 5).

(d) WIN-T. Refer to previous entries for definition of this enabler (Strike 3).

(e) CSG. Improvements and upgrades to the components of the CSG will continue (Strike 4)

(f) ESG. Improvement and upgrades to the components of the ESG will continue (Strike 4).

(g) CG. Improvement and upgrades to this class of vessel will continue (Strike 4).

(h) DDG. Improvement and upgrades to this class of vessel will continue (Strike 4).

(i) Common missile. The joint air-to-ground missile is a precision guided munition for use on joint rotary and fixed wing platforms and UAS as an eventual replacement for the Hellfire, tube-launched optically-tracked wire-guided, and Maverick families of missiles. This missile provides a common, multi-mode weapon capable of providing both current and future aviation platforms with reactive targeting capabilities satisfying the sum of needs across the joint platforms, and eliminating the need to address upgrades to each of the existing individual missile types separately (Strike 4).

(j) AFSB. The AFSB is a potent future capability. Seabasing will provide the capability to conduct shipboard operations from or through the joint sea base for early entry, personnel movement, or sustainment operations. This includes the ability to conduct vertical maneuver (mounted or dismounted) of forces from specifically configured sea based platforms to counter

anti-access. The forcible entry capability (such as the AFSB concept) would provide a sea base for an air assault brigade combat team with an air assault brigade task force aboard a ship. The task force would be capable of projecting its combat power ashore directly from the ship. Seabasing will allow Army aviation to maintain a projection platform that can be globally deployed while limiting the effects of anti-access efforts within a theater of operations. Marinization of future aircraft is required to realize fully the seabasing capability (Strike 4).

(k) AH-1. Upgrades and improvements will continue (Strike 6).

(l) AH-64. Upgrades and improvements will continue (Strike 6).

(m) Armed reconnaissance helicopter (ARH-70). The ARH-70 is a U.S. Army helicopter with a crew of 2 and optimized for urban combat. Currently in development, it will replace the Army's aging OH-58D Kiowa Warrior recon helicopters (Strike 6).

(n) Extended range multi-purpose, Warrior, UAS. The Warrior is a variant of the Predator UAS, which uses the same fuel as aircraft and helicopters, thus simplifying logistical support. The Centurion engine allows flying over 25,000 feet while providing increased horsepower, improved fuel consumption, reduced maintenance costs and increased service life. The UAS will carry multiple payloads and have wing hard points for carriage of external stores including expendable sensors and weapons. It can carry up to four Hellfire or Viper-Strike weapons. Army Warriors are configured to fly autonomously. The system will utilize the Standardization Agreement 4586 compatible common ground system, which is already in service with Shadow 200 offering better utilization of available assets, and manpower skills (Strike 6).

(o) JSF. Improvements will continue for the F-35 Lightning (Strike 6).

(p) JHL. The JHL is an aircraft with the ability to deliver a Stryker or FCS vehicle within a radius of 250 nm. Today's helicopters fall far short of the goals of a 20-ton payload with a 500-kilometer radius. The ability to insert combat vehicles vertically gives the commander unparalleled speed and agility. Independent of ground conditions, it enables the JFC to conduct vertical envelopment and vertical maneuver, as well as the ability to avoid predictable, linear patterns of operation. It also offers significant benefits to vertical JLOTS by providing the ability to deliver bulk logistics directly to the gaining unit, reducing the risk of interdiction on lines of communication (Strike 6).

(q) JPADS. In the future, JPADS program will encompass an even heavier class, supporting rigged weights of up to 60,000 pounds, enabling the delivery of medium weight combat vehicles such as the Stryker and some of the FCS-type vehicles (Strike 7).

(r) CH-47. Upgrades and improvements will continue (Strike 7).

(s) CH-53. Upgrades and improvements will continue (Strike 7).

(t) UH-60. Upgrades and improvements will continue (Strike 7).

- (u) UH-72. Upgrades and improvements will continue (Strike 7).
- (v) V-22. Upgrades and improvements will continue (Strike 7).
- (w) Joint cargo aircraft. Improvement and upgrades will continue (Strike 7).

4-5. Assessment of Protect Related Seabasing Enablers

a. TRADOC Pam 525-3-5 describes how the future Modular Force will protect people, physical assets, and information against the full spectrum of threats.

b. TRADOC Pam 525-3-5 system (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) CSG. Refer to previous entries for definition of this capability (Protect 1).

(b) ESG. Refer to previous entries for definition of this capability (Protect 1).

(c) Mine countermeasure (MCM) ships. MCM ships are designed to clear mines from vital waterways to support littoral operations. They include two new classes of ships and minesweeping helicopters (Protect 3).

- Avenger class ships
 - Designed as mine hunter-killers capable of finding, classifying and destroying moored and bottom mines.
 - Avenger class ships use sonar and video systems, cable cutters and a mine detonating device that can be released and detonated by remote control.
 - Avenger class is also capable of conventional sweeping measures.
- Osprey class ships
 - Designed as mine hunter-killers. The Osprey class has 15-day endurance and depends on a support ship or shore based facilities for resupply.
 - The Osprey class ships are currently being decommissioned. The LCS and H-60 helicopters will replace them.

(d) Cruise missile. A cruise missile is a guided missile which uses a lifting wing and most often a jet propulsion system to allow sustained flight. A cruise missile is, in essence, a flying bomb. They are generally designed to carry a large conventional or nuclear warhead many hundreds of miles with excellent accuracy (Protect 3).

(e) CG. Refer to previous entries for definition of this capability (Protect 3, 6).

(f) DDG. Refer to previous entries for definition of this capability (Protect 3, 6).

(g) LCS. The LCS is a fast, highly maneuverable, networked surface combat ship, which is specialized by mission packages. LCS is designed to satisfy the urgent requirement to operate in the littoral (coastal waters) to counter growing potential asymmetric threats of coastal mines, quiet diesel submarines, and small fast boats carrying personnel, equipment or explosives (Protect 3, 6).

(h) BCS3. Refer previous entries for definition of this capability (Protect 4).

(i) FBCB2 BFT. Refer to previous entries for definition of this capability (Protect 4).

(j) Army IAMD. Using a plug and fight architecture that is enabled by a common battle command capability. The IAMD system of systems optimizes the employment of current and future AMD systems in a given theater of operations through an integrated fire control network, allowing the AMD warfighter to identify and process tracks based on data from all available sensors and select the "best shooter" to defeat those tracks designated as hostile. The modular, component based nature of this capability allows for a flexible, tailorable AMD force that can be tasked organized across multiple echelons to address the full spectrum of third-dimensional threats employed against joint and coalition forces (Protect 6).

(2) Mid-Term

(a) CSG. Improvements and upgrades to the components of the CSG will continue (Protect 1).

(b) ESG. Improvement and upgrades to the components of the ESG will continue (Protect 1).

(c) The MPF(F)). The MPF(F) will serve four functions not provided by the current MPF: at-sea phased arrival and assembly of expeditionary forces, ESG interoperability, sea based sustainment of expeditionary forces, and at-sea reconstitution and redeployment of the expeditionary force (Protect 2).

(d) MCM ships. To be replaced by LCS and H-60 (Protect 3).

(e) Cruise missile. Improvements and upgrades will continue (Protect 3).

(f) CG. Improvements and upgrades will continue (Protect 3, 6).

(g) DDG. Improvements and upgrades will continue (Protect 3, 6).

(h) LCS. Improvements and upgrades will continue (Protect 3, 6).

(i) BCS3. Improvements and upgrades will continue (Protect 4).

(j) FBCB2 BFT. Improvements and upgrades will continue (Protect 4).

(k) Army IAMD. Improvements and upgrades will continue to support the attainment of joint IAMD (Protect 6).

(3) Far-Term

(a) CSG. Improvements and upgrades to the components of the CSG will continue (Protect 1).

(b) ESG. Improvement and upgrades to the components of the ESG will continue (Protect 1).

(c) Afloat forward staging bases (AFSB). AFSBs are a potential future capability that will enable the Army to assemble, vertically employ OTH, sustain, reconstitute, and reemploy rapid response forces from a joint sea base. Without an operational AFSB capability, Army air assault capabilities will be ineffective if their forward staging bases ashore are more than 150 miles from their objective areas. Each ship would provide a flat helicopter launch platform with 2 aircraft elevators and 1 container elevator. The AFSB would hold 30 helicopters and 1,000 Soldiers, with a 6-story modularized office space, along with a dry cargo area and an area for ammunition magazines. The vessel would optimize the ability store and maintain Army equipment and ammunition for extended operations at sea. The forced-entry capability might consist of 12 UH-60 Black Hawk, 6 CH-47 Chinook, 6 AH-64 Apache Longbow, and 6 OH-58D Kiowa Warriors. In support, it would have aviation maintenance and forward area refueling point capability (Protect 1, 2).

(d) MCM ships. To be replaced by LCS and H-60 (Protect 3).

(e) Cruise missile. Improvements and upgrades will continue (Protect 3).

(f) CG. Improvements and upgrades will continue (Protect 3, 6).

(g) DDG. Improvements and upgrades will continue (Protect 3, 6).

(h) LCS. Improvements and upgrades will continue (Protect 3, 6).

(i) Airborne laser. The airborne laser weapons system is a megawatt-class chemical oxygen iodine laser primarily designed to destroy tactical ballistic missiles, similar to the subsonic cruise unarmed decoy missile (commonly known as the SCUD), while in boost phase (Protect 3).

(j) LandWarNet. Refer previous entries for definition of this enabler (Protect 4).

(k) FORCENet. Refer to previous entries for definition of this enabler (Protect 4).

(l) GIG. Refer to previous entries for definition of this enabler (Protect 4).

(m) NECC. Refer to previous entries for definition of this enabler (Protect 4).

(n) JBC-P. Refer to previous entries for definition of this enabler (Protect 4).

(o) Army IAMD. Improvements and upgrades will continue to support the attainment of joint IAMD (Protect 6).

4-6. Assessment of Move Related Seabasing Enablers

a. TRADOC Pam 525-3-6 describes the best means to improve the strategic responsiveness and operational agility of the future Modular Force.

b. TRADOC Pam 525-3-6 enablers (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) ASF (Move 1, 4).

- The ASF is the Army counterpart to the Marine Corps' MPF(F). The traditional methods of locating sustainment stocks in theater reserve sites under local or theater commander control is no longer consistent with supporting the dynamics of a rapidly changing world with constrained resources - nor is it in keeping with current policy objectives.
- Instead the Army maintains APS, located in CONUS, Europe, Asia, and afloat. These APS stocks are managed at the HQ DA level and can be transferred to any theater in the event of a contingency.
- The Army has become a much smaller, predominantly CONUS-based force. The Army's strategic mobility program, when fully implemented, will greatly expand the Army's ability to move personnel and equipment to potential contingencies throughout the world quickly.
- The ASF will be located at Guam and Diego Garcia. Each location will support an IBCT with wheeled augmentation set, sustainment brigade (theater opening), SSA afloat (containerized, no selective discharge), and sustainment ammunition.
- These ships will support IBCT combat forces, theater opening forces, and humanitarian and disaster relief.

(b) APS. The APS program supports the National Military Strategy by prepositioning critical warfighting stocks in strategic locations worldwide to reduce deployment response times for an expeditionary and transforming Army. The relevance of APS to an Army at war was demonstrated through major support to OIF. Three brigades and supporting equipment were issued to 3rd Infantry Division. A total of 218 distinct unit sets was issued to units deployed in support of OIF. APS consists of prepositioned unit sets of equipment, operational projects, and sustainment stocks. It also includes war reserve stocks for allies in Israel. APS remains a critical component of Army power projection (Move 1, 4).

(c) Transportation Coordinators Automated Information Movement System (TC-AIMS II). TC-AIMS II is a critical deployment and transportation system that provides

transportation agents and deploying units a capability to automate the processes of planning, organizing, coordinating, and controlling deployment, redeployment, and sustainment activities worldwide, in peacetime, war, and actions other than war. It provides a modernized, integrated, and easily deployable automated information system that supports current and re-engineered functional business processes throughout the DOD. TC-AIMS II provides users the ability to source the time phased force deployment data in support of operational plans and contingency operations (Move 2).

(d) Global transportation network (GTN). GTN is an automated C2 information system being developed by the USTRANSCOM. The system collects information from selected transportation systems operated by the Services and the DLA, integrates it into a single data base, and supports a worldwide family of transportation users and suppliers (both military and commercial). GTN integrates supply, cargo, passenger, and unit requirements and movements with airlift, air refueling, and sealift schedules and movements to provide ITV of personnel, materiel, and military forces. The system also provides a planning capability for current and future transportation operations and furnishes the movement and scheduling portion of the GCCS (Move 2).

(e) Radio frequency identification (RFID). RFID is an automatic identification process that allows for storing, relying processing, and remotely retrieving data using tags or transponders. An RFID tag is attaches to a product, animal, or person for the purpose of identification using radio waves. RFID increases the speed and accuracy with which inventory can be tracked and managed thereby saving money for the DOD (Move 2).

(f) BCS3. Refer to previous entries for the definition of this enabler (Move 2).

(g) Large medium-speed roll-on/roll-off (RORO) vessels (LMSR). The LMSR is big enough to carry an entire U.S. Army task force. The ships can carry vehicles and equipment to support humanitarian and combat missions. The newer vessels have a cargo carrying capacity of more than 380,000 square feet. In addition, LMSRs have a slewing stern ramp and a removable ramp that services two side ports making it easy to drive vehicles on and off the ship. Interior ramps between decks ease traffic flow once cargo is loaded aboard ship. Two 110-ton single pedestal twin cranes make it possible to load and unload cargo where shore side infrastructure is limited or nonexistent. A commercial helicopter deck is available for emergency, daytime landing (Move 4).

(h) Fast sealift ships (FSS). The FSSs are some of the fastest cargo ships in the world. The ships can travel at speed of up to 33 knots and are capable of sailing from the U.S. East Coast to Europe in just six days, and to the Persian Gulf via the Suez Canal in 18 days, thus ensuring rapid delivery of military equipment in a crisis. Combined, all eight FSS can carry nearly all the equipment needed to outfit a full Army mechanized division. The FSS is a RORO and lift-on/lift-off ships equipped with on-board cranes and self-contained ramps which enable the ships to off-load onto lighterage while anchored at sea or in ports where shore facilities for unloading equipment are unavailable. The vessels are specially suited to transport heavy or bulky unit equipment such as tanks, large wheeled vehicles, and helicopters (Move 4).

(i) Amphibious ships (Move 4).

- The modern U.S. Navy amphibious assault ship is the largest of all warfare ships. It is capable of supporting vertical short take-off and landing, short take-off vertical landing, and VTOL tilt-rotor and rotary wing aircraft operations. It contains a well deck to support use of LCAC type and other watercraft.
- Amphibious assault ships project power and maintain presence by serving as the cornerstone of the amphibious readiness group (ARG) and ESG. They transport and land elements of the Marine expeditionary brigade with a combination of aircraft and landing craft.
- The Tarawa-Class LHA aircraft provides the Marine Corps with ship-to-objective movement by helicopter, in addition to movement by landing craft.

(j) Maritime prepositioned ships (MPS). The 16 ships of the MPF are part of Military Sealift Command's prepositioning program. The command prepositions U.S. Marine Corps vehicles, equipment, and ammunition throughout the world. The MPS are assigned to three squadrons, MPS 1-3, located in the Mediterranean, the Indian Ocean at Diego Garcia, and the Western Pacific at Guam and Saipan. Each squadron has sufficient equipment, supplies, and ammunition to support a Marine expeditionary brigade of about 17,000 personnel for 30 days. The MPS ships are self-sustaining with cranes, which enable it to unload its own cargo. Capacity was expanded to carry expeditionary airfields, Seabee construction equipment, and field hospital cargo (Move 4).

(k) LSV. The LSVs are the Army's largest powered watercraft. They are designed to carry up to 2,000 tons of cargo from strategic sealift ships to shore during operations. The vessels are critical force projection enablers in that they are primarily used in intratheater contingency operations and can "beach" themselves on shore to drop off cargo. The LSV provides worldwide transport of general and vehicular cargo. LSV missions include intra-theater line-haul in support of unit deployment or relocation; tactical and sustained resupply to remote, undeveloped areas along coastlines and on inland water ways; and support to the discharge and backload of ships in RORO or logistics-over-the-shore (LOTS) operations. LSV Detachments carry cargo and equipment throughout a theater of operations or inter-theater routes not otherwise serviced by the Military Sealift Command. LSV detachments also assist in RORO or LOTS operations, particularly with container handling equipment, vehicular and other over-size and overweight cargo (Move 5).

(l) LCU. The LCU-2000 provides transport of combat vehicles and sustainment cargo. It provides intratheater movement of cargo and equipment. Tactical resupply missions can be performed to remote, underdeveloped coastlines and inland waterways. This includes missions in LOTS operations in remote areas with austere shore facilities or unimproved beaches. It is also ideally suited for the discharge or back load of sealift, including RORO vessels such as an LMSR. All tracked and wheeled vehicles, including main battle tanks, dozers, and container-handling equipment, can be transported in LOTS operations. The LCU-2000 has a bow ramp for RORO cargo, and a bow thruster to assist in beaching and beach extraction. It can also be used for deployment and relocation of unit equipment. Because of its shallow draft, the LCU-2000

can carry cargo from deep-draft ships to shore ports or areas too shallow for larger strategic lift ships. These vessels execute cargo operations along coastal MSRs (Move 5).

(m) LCM vessels. The LCM-8 transports equipment and troops from ship to shore and is also used for retrograde movements. It is designed for use in rough or exposed waters and is capable of operating through breakers and grounding on a beach. The bow ramp permits RORO operations with wheeled and tracked vehicles. Its small size facilitates its use in confined areas and harbors. It can also serve as a C2), personnel transfer, and light salvage craft performing many support functions in conditions up to SS3. It is also used as a medical evacuation vessel, diver support platform, and firefighting and light salvage boat. It is able to work in shallow inlets and rivers as well as retain its original ability to land on an unimproved beach (Move 5).

(n) LCAC. The LCAC is a high-speed, over-the-beach fully amphibious landing craft, capable of carrying a 60-75 ton payload. It is used to transport the weapons systems, equipment, cargo, and personnel of the assault elements of the Marine air ground task force (MAGTF) from ship to shore and across the beach. The LCAC can carry heavy payloads, such as an M-1 tank, at high speeds. The LCAC payload capability and speed combine to increase significantly the ability of the Marine ground element to reach the shore. Air cushion technology allows this vehicle to reach more than 70 percent of the world's coastline, while only about 15 percent of that coastline is accessible by conventional landing craft (Move 5).

(o) Improved Navy Lighterage System (INLS). The INLS is a SS3 capable causeway system floating pier that comprises powered and non-powered floating platforms assembled from inter-changeable modules. The INLS is used to transfer cargo from sealift ships to shore areas where conventional port facilities may be damaged, inadequate, or nonexistent. The Navy LOTS is the loading and unloading of ships without the benefit of fixed port facilities in either friendly or undefended territory, and in time of war, during phases of theatre development. The INLS will be deployed during LOTS operations, assault follow-on echelon operations and MPF operations. INLS consists of warping tugs, causeway ferries, RORO discharge facilities, and floating causeway (Move 5).

(p) Modular causeway system. The modular causeway system is an assemblage of interoperable and interchangeable components which constitute the Army's primary means of augmenting existing port facilities, or conducting LOTS operations where no port is available due to shallow water or low-sloping beach gradients prevent access by deep draft vessels, or because ports are otherwise inaccessible or denied to deep draft shipping. The modular causeway system is comprised of powered and non-powered floating platforms and will have the following sub-systems: RORO discharge facility (RRDF), causeway ferries, floating causeways and the warping tug (Move 5).

(q) CH-47. Refer to previous entries for definition of this enabler (Move 5).

(r) CH-53. Refer to previous entries for definition of this enabler (Move 5).

(s) V-22. Refer to previous entries for definition of this enabler (Move 5).

- (t) UH-60 Refer to previous entries for definition of this enabler (Move 5).
- (u) CG. Refer to previous entries for definition of this enabler (Move 6).
- (v) DDG. Refer to previous entries for definition of this enabler (Move 6).
- (w) LCS. Refer to previous entries for definition of this enabler (Move 6).
- (x) Army IAMD. Refer to previous entries for definition of this enabler (Move 6).

(y) SSN. Attack submarine are designed to seek and destroy enemy submarines and surface ships; project power ashore with Tomahawk cruise missiles and SOF, carry out ISR missions; support CSG and ESGs; and engage in mine warfare (Move 6).

(2) Mid-Term

(a) ASF. The Army will continue to maintain prepositioned equipment afloat and will continue to upgrade capability (Move 1).

(b) APS. The Army will continue to maintain prepositioned equipment ashore and will continue to upgrade capability (Move 1).

(c) TC-AIMS II. Will continue to upgrade and will field Block 3 (Move 2).

(d) GTN. Will continue to upgrade the capability (Move 2).

(e) RFID. RFID will continue to be used to track movement of equipment and supplies and the military will continue to upgrade and expand the capability (Move 2).

(f) BCS3. Refer to paragraph previous entry for the definition of this enabler. The Army will continue to upgrade system and eventually transition to GCSS-A. GCSS-Army will allow staffs and commanders to support force commanders whether in garrison or during military operations by providing essential operational capabilities that include materiel management, maintenance management, and property accountability operations, and information from non-logistics sustainment systems. The GCSS-A will establish a web-based capability so that users can gain access to information and exchange operational data in personnel, legal, religious, medical, finance, transportation, training, unit administration, and other sustainment functional areas. It will integrate enterprise information and provide all echelons access to critical sustainment information. GCSS-Army will share data with joint information systems to allow for the mobilization, deployment, employment, sustainment, and redeployment of joint and Army forces. GCSS-A updated logistical business processes, software, computer hardware, and peripherals are key information enablers for the total Army. It will provide functional sustainment information and sustainment field services management from the Army's tactical and operational levels. GCSS-Army will provide a single maneuver sustainment picture through integration of sustainment information to manage combat power (Move 2).

- (g) LMSR. The LMSRs will continue to be upgraded during this period (Move 4).
- (h) FSS. The FSS will continue to be upgraded during this period (Move 4).
- (i) Amphibious ships. These ships will continue to be upgraded and the LHA will eventually be replaced by the LHA(6) (Move 4).
- (j) MPF(F). The MPF(F) will serve four functions not provided by the current MPF: at-sea phased arrival and assembly of expeditionary forces, ESG interoperability, sea based sustainment of expeditionary forces, and at-sea reconstitution and redeployment of the expeditionary force (Move 4).
- (k) JHSV. The JHSV will have the necessary speed, range, draft, and payload not currently provided by intratheater airlift and surface lift platforms. The JHSV will possess the ability to maneuver, at intratheater ranges, intact, ready-to-fight modular combat forces. Further, the JHSV's speed provides the future JFC a capability that current platforms do not have, the speed to respond rapidly with the right force at the time and place of his choosing. A key tenet of the JHSV's capability set is the vessel's ability to flex rapidly from theater to theater to respond to crises at any location on the globe in time to meet joint force employment timelines.
- (l) LSV. Refer to previous entries for definition of this enabler (Move 5).
- (m) Joint maritime assault connector (JMAC). The JMAC will replace the legacy LCAC as a critical tactical level platform supporting Marine Corps assault forces, as well as joint forces operating within the sea base. In comparison to the LCAC, the JMAC is envisioned to have many enhanced capabilities, such as the ability to operate in higher SSs, increased range, speed, and payload, increased obstacle clearance, and reduced operating and maintenance costs (Move 5).
- (n) LCU. Refer to previous entries for definition of this enabler (Move 5).
- (o) LCM. Refer to previous entries for definition of this enabler (Move 5).
- (p) INLS. Upgrades and improvements will continue (Move 5).
- (q) Vessel to shore bridging. This capability encompass lightweight floating bridging that can be carried on current and future watercraft with little space and weight requirement. It is easily and quickly employed to allow vessels access to austere and bare-beach littoral access points they could not otherwise reach (Move 5).
- (r) CH-47. Upgrades and improvements will continue (Move 5).
- (s) CH-53. Upgrades and improvements will continue (Move 5).
- (t) V-22. Upgrades and improvements will continue (Move 5).

- (u) UH-60 Blackhawk. Upgrades and improvements will continue (Move 5).
- (v) CG. Improvements and upgrades will continue (Move 6).
- (w) DDG. Improvements and upgrades will continue (Move 6).
- (x) LCS. Improvements and upgrades will continue (Move 6).
- (y) Army IAMD. Improvements and upgrades will continue to support the attainment of joint IAMD (Move 6).
- (z) SSN. Improvements and upgrades will continue (Move 6).
- (aa) Modular causeway system. Refer to previous entries for enabler definition (Move 5).
- (3) Far-Term
 - (a) ASF. The Army will continue to maintain prepositioned equipment afloat and will continue to upgrade capability (Move 1).
 - (b) APS. The Army will continue to maintain prepositioned equipment ashore and will continue to upgrade capability (Move 1).
 - (c) AFSB. Refer to previous entries for definition of this enabler (Move 1).
 - (d) LandWarNet. Refer to previous entries for definition of this enabler (Move 2).
 - (e) FORCEnet. Refer to previous entries for definition of this enabler (Move 2).
 - (f) GIG. Refer to previous entries for definition of this enabler (Move 2).
 - (g) NECC. Refer to previous entries for definition of this enabler (Move 2).
 - (h) LMSR. The LMSRs will be upgraded during this period (Move 4).
 - (i) FSS. The FSS will continue to be upgraded during this period (Move 4).
 - (j) Amphibious ships. These ships will continue to be upgraded and the LHA will eventually be replaced by the LHA(6) (Move 4).
 - (k) MPF(F). The MPF(F) will continue to be fielded and upgraded as necessary during this period (Move 4).
 - (l) JHSV. The JHSV will continue to be fielded and upgraded during this period (Move 5).

(m) JHSS. The JHSS is a potential future concept that would enable the rapid projection, from any point of origin, of large combat-configured ground forces directly to degraded and unimproved ports or over low-grade shorelines without reliance on advance or ISBs. Its capabilities include shallow draft; the ability to deploy forces combat configured and reduce or eliminate RSO&I; ability to interface with other sea based platforms to conduct cross decking operations; ability for selectable off-load; ability to deploy battalion task force; include all equipment, supplies and personnel; ability to provide cargo handling, transfer and movement of personnel and equipment (up to 30 short tons); and the ability to provide en route C2, mission planning and rehearsal (Move 5).

(n) LSV. Refer to previous entries for definition of this enabler (Move 5).

(o) JMAC. The JMAC will continue to be fielded and upgraded during this period (Move 5).

(p) LCU. Refer to previous entries for definition of this enabler (Move 5).

(q) LCM. Refer to previous entries for definition of this enabler (Move 5).

(r) INLS. Upgrades and improvements will continue (Move 5).

(s) Vessel to shore bridging. Refer to previous entries for enabler definition (Move 5).

(t) CH-47. Upgrades and improvements will continue (Move 5).

(u) CH-53. Upgrades and improvements will continue (Move 5).

(v) V-22. Upgrades and improvements will continue (Move 5).

(w) UH-60 Blackhawk. Upgrades and improvements will continue (Move 5).

(x) JHL. Refer to previous entries for definition of this enabler (Move 5).

(y) CG. Improvements and upgrades will continue (Move 6).

(z) DDG. Improvements and upgrades will continue (Move 6).

(aa) LCS. Improvements and upgrades will continue (Move 6).

(bb) Army IAMD. Improvements and upgrades will continue to support the attainment of joint IAMD (Move 6).

(cc) SSN. Improvements and upgrades will continue (Move 6).

(dd) Modular causeway system. Refer to previous entries for enabler definition (Move 5).

4-7. Assessment of Sustain Related Seabasing Enablers

a. TRADOC Pam 525-4-1 establishes the overarching framework for logistics support to the future Modular Force. The concept seeks to answer the challenges that flow from joint operating environment of the future Modular Force.

b. TRADOC Pam 525-4-1 system (associated capability statements from table 3-2 in parentheses).

(1) Current and Near-Term

(a) BCS3. Refer to previous entries for the definition of this enabler (Sustain 1).

(b) Movement Tracking System (MTS). MTS is a satellite-based tracking and communications system with the capability to identify, position, and track the progress of tactical wheeled vehicles, providing common-user land transportation vehicles and mode managers with real time ITV of units, and cargo with position reports throughout the theater of operation. MTS has an embedded movement control capability that provides the means for transportation movement control and sustainment operations sections to improve traffic management on the main supply routes, provide the means to identify flat rack and trailer delivery and pickup locations on the digitized battlefield, and furnish real time operating tempo data for planning and exercises (Sustain 3).

(c) GTN. Refer to previous entries for the definition of this enabler (Sustain 4).

(d) RFID. Refer to previous entries for the definition of this enabler (Sustain 4).

(e) Auxiliary cargo and ammunition ship (T-AKE). As an auxiliary support ship, the T-AKE will directly contribute to the ability of the Navy to maintain a forward presence. In its primary mission role, the T-AKE will provide logistic lift from sources of supply such as friendly ports, or at sea from specially equipped merchant ships by consolidation, and will transfer cargo (ammunition, food, limited quantities of fuel, repair parts, ship store items, and expendable supplies and material) at sea to station ships and other naval warfare forces. In its secondary mission, the T-AKE may be required to operate in concert with a T-AO as a substitute station ship to provide direct logistics support to the ships within a carrier strike group (Sustain 5).

(f) Replenishment oiler (T-AO). Fourteen underway replenishment oilers are operated by Military Sealift Command and provide underway replenishment of fuel to U.S. Navy ships at sea and jet fuel for aircraft assigned to aircraft carriers (Sustain 5).

(g) Off-shore petroleum discharge system (OPDS). The OPDS provides rapid mobile transfer of fuel from offshore tankers to U.S. military fuel storage facilities ashore when conventional fuel transfer facilities are unavailable (Sustain 5).

(h) Ammunition ship (T-AE). T-AE ships operated by Military Sealift Command provide underway replenishment of all types of ammunition via connected replenishment and vertical replenishment methods. Additionally, these ships will frequently assist with the transfer of ammunition between weapons storage and maintenance facilities worldwide (Sustain 5).

(i) Fast combat support ship (T-AOE). The T-AOE has the speed to keep up with the carrier battle groups. It rapidly replenishes Navy task forces and can carry more than 177,000 barrels of oil; 2,150 tons of ammunition; 500 tons of dry stores; and 250 tons of refrigerated stores. It receives petroleum products, ammunition, and stores from shuttle ships and redistributes these items simultaneously to carrier battle group ships. This reduces the vulnerability of serviced ships by reducing alongside time (Sustain 5).

(j) JLOTS. JLOTS consists of loading and unloading ships without fixed port facilities, in friendly or non-defended territory, and, in time of war, during phases of theater development in which there is no opposition by the enemy. JLOTS provides required operational maneuver capabilities in areas of anti-access or area denial and underdeveloped ports. Components provide equipment and train and exercise this capability to include at least one liquid-cargo and dry-cargo joint exercise per year. The military departments continue to evaluate interoperable technologies to provide this capability in environments greater than SS-2 (Sustain 6).

(k) LCU. Refer to previous entries for the definition of this enabler (Sustain 6).

(l) LCM. Refer to previous entries for the definition of this enabler (Sustain 6).

(m) LCAC. Refer to previous entries for the definition of this enabler (Sustain 6).

(n) INLS. Refer to previous entries for the definition of this enabler (Sustain 6).

(o) CH-47. Refer to previous entries for the definition of this enabler (Sustain 6, 7, 10).

(p) CH-53. Refer to previous entries for the definition of this enabler (Sustain 6, 7, 10).

(q) V-22. Refer to previous entries for the definition of this enabler (Sustain 6, 7, 10).

(r) UH-60. Refer to previous entries for the definition of this enabler (Sustain 6, 7, 10).

(s) International Standardization Organization 20-foot container. The 20-foot container is the most common container worldwide, but the 40-foot container is increasingly replacing it, particularly since costs tend to be per container and not per foot. The longer container types are also becoming more common, and are especially common in North America. Shorter containers also exist, but are rarely used (Sustain 8).

(t) Individual storage unit (ISU). An ISU is a small containerized storage and mobility systems that come in a wide variety of configurations and sizes. They are sized to allow them to be transported using military aircraft cargo system and come in a variety of heights (Sustain 8).

(u) Pallet. A pallet is a flat transport structure designed to support a variety of goods in a stable fashion while being lifted by any mobile forklift or other jacking device. The goods are placed on top of the pallet, and can be secured to it by straps or stretch-wrapped plastic film. While the majority of pallets are made of wood, pallets manufactured from plastic, metal, paper can also be found (Sustain 8).

(v) Flatrack. A demountable cargo bed that is used in conjunction with the palletized loading system or the heavy expanded mobility tactical truck load handling system (Sustain 8).

(w) Amphibious ships. Refer to previous entries for definition of this enabler (Sustain 9).

(x) Forward repair systems (FRS). The FRS is a two-person crew maintenance shop on wheels containing an on-board crane, air compressor, 30 kilowatt tactically quiet generator, welder, and full complement of diagnostic and hand tools for most maintenance situations (Sustain 9).

(y) Hospital ship (T-AH). These (two) hospital ships contain 12 fully-equipped operating rooms, a 1,000 bed hospital facility, digital radiological services, a diagnostic and clinical laboratory, a pharmacy, an optometry lab, a cat scan and two oxygen producing plants. Both vessels have a helicopter deck capable of landing large military helicopters, as well as side ports to take on patients at sea (Sustain 11).

(z) Underway replenishment (UNREP). UNREP or replenishment at sea, is a method of transferring fuel, munitions, and stores from one ship to another while under way. Some are discussed below (Sustain 11).

- The alongside-connected replenishment is a standard method of transferring fluids, such as fuel, ammunition, and break bulk goods. The supplying ship holds a steady course and speed, generally between 12 and 16 knots. The receiving ship comes alongside the supplier at a distance of approximately 30 yards. A gun line, or shot line, is fired from the supplier, which is used to pull across a messenger line. This line is used to pull across other equipment such as a distance line, phone line, and the transfer rig lines. As the command ship of the replenishment operation, the supply ship provides all lines and equipment needed for the transfer. Additionally, all commands are directed from the supply ship.
- Another type of UNREP is astern fueling. In this method, the receiving ship follows directly behind the supplying ship. The fuel supplying ship throws a marker buoy into the sea and the receiving ship takes station with it. The delivering ship trails a hose in the water that the fuel receiving ship retrieves and connects to receive fuel. This method is more limited, as only one transfer rig can be set up; however, it is safer, as a slight course error will not cause a collision.

- A third type of UNREP is vertical replenishment. In this method, a helicopter lifts cargo from the supplying ship and drops it on the receiving ship. The main advantage of this method is that the ships do not need to be close to each other, so there is little risk of collision. However, the maximum load and transfer speeds both are limited by the capacity of the helicopter.

(aa) RRDF. This capability provides a means of disembarking vehicles from a RORO ship to lighterage. The RRDF is a sub-configuration of the modular causeway system. The RRDF consists of six causeway sections, non-powered assembled into a platform that is two sections long and three sections wide. The RRDF assembly includes fendering, lighting, and a ramp for vehicle movement from ship to the platform (Sustain 11).

(bb) Auxiliary crane ship. The auxiliary crane ships are Military Sealift Command Ready Reserve ships that can be quickly made available to support military sea transportation needs. These self-sustaining ships are useful in ports that have limited, damaged or undeveloped port facilities. The auxiliary crane ships are converted container ships with three twin boom pedestal cranes which can lift containers or other cargo from themselves or adjacent vessels and deposit the cargo on a pier or lighterage (Sustain 11).

(cc) ASF. Refer to previous entries for enabler definition. (Sustain 9).

(2) Mid-Term

(a) GCSS-A. Refer previous entries for the definition of this enabler (Sustain 1).

(b) LDSS. Refer to previous entries for the definition of this enabler (Sustain 1).

(c) MTS. Will continue to be upgraded and improved during this period (Sustain 3).

(d) GTN. This capability will continue to be improved and upgraded during this period (Sustain 4).

(e) RFID. This capability will continue to be improved and upgraded during this period (Sustain 4).

(f) T-AKE. This capability will continue to be upgraded as required during this period (Sustain 5).

(g) T-AO. This capability will continue to be upgraded as required during this period (Sustain 5).

(h) OPDS. This capability will continue to be upgraded as required during this period (Sustain 5).

(i) T-AE. This capability will be replaced by T-AKEs (Sustain 5).

(j) T-AOE. This capability will continue to be upgraded as required during this period (Sustain 5).

(k) Node management and deployable depot (NoMaDD). Implements a deployable end-to-end distribution system, including asset visibility using radio-frequency identification (Sustain 5).

(l) MPF(F). Refer to previous entries for the definition of this enabler (Sustain 5).

(m) JLOTS. Will continue to be improved and upgraded during this period (Sustain 6).

(n) JMAC. Refer to previous entries for the definition of this enabler (Sustain 6).

(o) INLS. Refer to previous entries for definition of this enabler (Sustain 6).

(p) LMCS. Refer to previous entries for definition of this enabler (Sustain 6).

(q) CH-47. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(r) CH-53. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(s) V-22. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(t) UH-60. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(u) JPADS. JPADS allow autonomous delivery of cargo from high altitudes and significant standoff. Para-Flite's current systems are capable of deployments to 25,000 feet in altitude and horizontal separations of over 30 kilometers. This separation increases safety for aircrews and enhances the security of forces on the ground. The largest system called MegaFly can carry up to 30,000 pounds (Sustain 6).

(v) International standardization organization 20-foot container. Will continue to be used during this period (Sustain 8).

(w) ISU. Will continue to be used during this period (Sustain 8).

(x) Pallet. Will continue to be used during this period (Sustain 8).

(y) Flatrack. Will continue to be used during this period (Sustain 8).

(z) Joint modular intermodal container (JMIC). Provides a common intermodal container system with automated loading, handling, storage, tracking, and surveillance technology (Sustain 8).

(aa) Amphibious ships. Will continue to be upgraded and improved during this period (Sustain 9).

(bb) FRS. Will continue to be improved and upgraded during this period (Sustain 9).

(cc) T-AH. Will continue to be upgraded and improved during this period (Sustain 11).

(dd) UNREP. Will continue and will be improved and the capability will be increased (Sustain 12).

(ee) Mobile landing platform (MLP). The MLPs are being developed to facilitate at-sea cargo transfers. It is a platform that partially submerges in water and allows cargo to float on and off; it is essentially a "beach" that links a RORO cargo ship to small, barge-like watercraft that can deliver the equipment from the sea base ashore. The MLP is a 34,544 metric ton displacement carrier for LCACs. It would also function as a staging position for doing some of the assembly of forces. Additionally, the MLP would be a troop carrier, carrying 1,112 Marines, and a place where forces could be matched with their equipment before being transported ashore on LCACs or via aviation assets. The ships would be about 800 feet (250 meters) long and built to commercial standards, with a maximum speed of about 20 knots (Sustain 12).

(ff) Auxiliary crane ship. Will continue to be upgraded and improved during this period (Sustain 12).

(gg) RRDF. Refer to previous entries for enabler definition (Sustain 11).

(hh) ASF. Refer to previous entries for enabler definition (Sustain 9).

(3) Far-Term

(a) LandWarNet. Refer to previous entries for definition of this enabler (Sustain 1, 3, 4).

(b) FORCEnet. Refer to previous entries for definition of this enabler (Sustain 1, 3, 4).

(c) GIG. Refer to previous entries for definition of this enabler (Sustain 1, 3, 4).

(d) NECC. Refer to previous entries for definition of this enabler (Sustain 1, 3, 4).

(e) LDSS. Will continue to be fielded and upgraded during this period (Sustain 1, 3, 4).

(f) JBC-P. Refer to previous entries for definition of this enabler (Sustain 3).

(g) T-AKE. This capability will continue to be upgraded as required during this period (Sustain 5).

(h) T-AO. This capability will continue to be upgraded as required during this period (Sustain 5).

(i) OPDS. This capability will continue to be upgraded as required during this period (Sustain 5).

(j) T-AE. This capability will continue to be upgraded as required during this period (Sustain 5).

(k) T-AOE. This capability will continue to be upgraded as required during this period (Sustain 5).

(l) NoMaDD. Will continue to be implemented and upgraded during this period (Sustain 5).

(m) MPF(F). Will continue to be fielded and upgraded during this period (Sustain 5).

(n) AFSB. Refer to previous entries for the definition of this enabler (Sustain 5).

(o) JLOTS. Will continue to be improved and upgraded during this period (Sustain 6).

(p) JMAC. Will continue to be fielded and upgraded during this period (Sustain 6).

(q) INLS. Refer to previous entries for definition of this enabler (Sustain 6).

(r) LMCS. Refer to previous entries for definition of this enabler (Sustain 6).

(s) CH-47. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(t) CH-53. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(u) V-22. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(v) UH-60. Will continue to be upgraded and improved during this period (Sustain 6, 7, 10).

(w) JHL. Refer to previous entries for the definition of this enabler (Sustain 6, 7, 10).

(x) JPADS. Will continue to be upgraded and improved during this period (Sustain 6).

(y) International Standardization Organization 20-foot container. Will continue to be used during this period (Sustain 8).

(z) ISU. Will continue to be used during this period (Sustain 8).

(aa) Pallet. Will continue to be used during this period (Sustain 8).

(bb) Flatrack. Will continue to be used during this period (Sustain 8).

(cc) JMIC. Will continue to be upgraded and improved during this period (Sustain 8).

(dd) Amphibious ships. Will continue to be upgraded and improved during this period (Sustain 9).

(ee) FRS. Will continue to be improved and upgraded during this period (Sustain 9).

(ff) TASMC. The TASMC complements the TASMGC by providing a deployable, highly mobile facility that is containerized using standard commercial size containers. This containerized facility would provide work areas, repair parts storage, specialized equipment and other self-contained support that would provide a theater level aviation sustainment maintenance capability. This capability will allow the TASMGC units to be self-sufficient for 30 days. The TASMC should be fully operational after loading on a vessel of appropriate size and configuration in a seabasing configuration and also be capable of off loading to provide a land-based maintenance operation (Sustain 9).

(gg) T-AH. Will continue to be upgraded and improved during this period (Sustain 11).

(hh) UNREP. Will continue to be upgraded, improved, and have its capability increased (Sustain 12).

(ii) MLP. Will continue to be fielded and upgraded during this period (Sustain 12).

(jj) Heavy lift crane. The heavy lift crane is designed to move cargo from ship-to-ship during heavy seas. For safety reasons, conventional ship cranes cannot accomplish ship-to-ship cargo handling operations in seas greater than SS 2, particularly when offloading cargo from a ship deck to an adjacent lighterage or barge. Overcoming this challenge is a critical technological issues that must be solved for the Navy to implement seabasing (Sustain 12).

(kk) ASF. Refer to previous entries for enabler definition (Sustain 9).

(ll) RRDF. Refer to previous entries for enabler definition (Sustain 11).

Chapter 5

Army Seabasing Operational Architecture

5-1. Army Seabasing Operations Operational Architecture Products

a. The primary purposes for developing the Army seabasing operations operational architecture products are to support the development of TRADOC Pam 525-7-10, and to describe how Army seabasing operations integrate with and perform as a part of the future Modular Force. Included in this plan are four high-level operational concept graphics.

b. The graphics are not intended to be a full operational view (OV) -1 operational architecture products, but rather pictorial illustrations of the joint operational phases of shape, deter, seize the initiative, dominate, stabilize, and enable civil authority but will be displayed as outlined in TRADOC Pam 525-3-0 as prepare and posture, shape and entry, conduct decisive operations and transition. For concept purposes, the prepare and posture phase encompasses the two distinct joint phases of shape and deter. Similarly, the Army shape and enter phase includes elements of the joint shape and seize the initiative phases. The Army conduct decisive operations phase includes the joint seize the initiative phase and parts of dominate, stabilize, and enable civil authority. Transition, as used in the Army capstone concept, overlaps the joint phases of dominate, stabilize, and enable civil authority.

5-2. High-Level Concept Graphic, Prepare and Posture

a. During this phase of the operation, the JFC will employ flexible deterrent options to signal U.S. intentions, facilitate crisis response actions, and set conditions that will enable more rapid and effective intervention, deterrence and dissuasion. The CJFC will identify and submit a request for forces for immediate and follow-on air, land, sea forces to support the operational plan.

b. As depicted in figure 5-1, prepare and posture will begin the closure of forces to the JOA and begin the assembly of the seabase. Additionally, required communications and intelligence systems are repositioned to cover the JOA. This initial robust joint battle management C2 capability, facilitated by the net-centric environment, will provide the COP to all units of the joint force. This COP is essential to ensuring 100 percent TAV and ITV of all units, equipment, and supplies closing to the seabase and JOA.

b. If deterrence fails and intervention is directed, the JFC conducts operations to establish maritime, air, and space superiority and expand maritime, air, and space access to increase freedom of navigation and maneuver unimpeded by the enemy threat. Maritime superiority, air and space superiority will be established under the auspices of the sea shield, JUSS, global strike, and joint IAMD concepts.

c. As sea, air, and space superiority is established; the joint force attacks and destroys the enemy anti-access to establish air and maritime access for assault forces into JOA.

d. As depicted in figure 5-2, sea, air and space superiority will complete the initial assembly of the immediate response force and begin the employment of forces ashore. Once the requisite level of assured access is achieved, the JFC rapidly employs joint forces ashore by air and surface to secure multiple air and sea entry points, in order to build joint combat power ashore and seize the initiative early. These forcible entry operations are conducted under the protective umbrella described in sea shield, sea strike, JUSS, global strike, and joint IAMD.

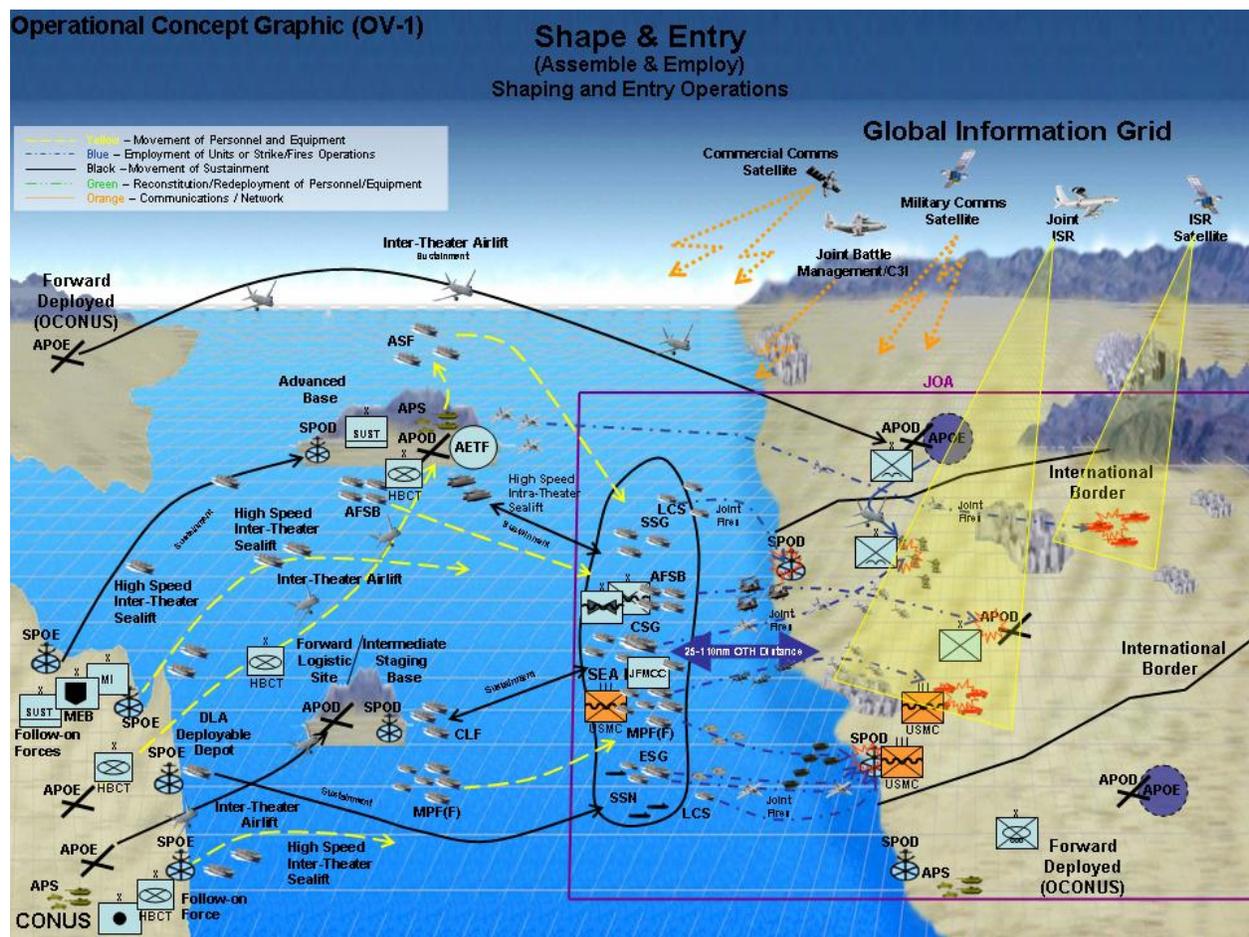


Figure 5-2. Shape and Enter Operations Graphic

e. As air and sea entry points are secured, additional follow-on air, sea and land forces from CONUS, ABs and forward operating areas will continue to deploy to and through the sea base.

f. During these initial stages of the campaign, sustainment for extended and distributed operations are integrated into the air and sea assault operations to ensure that commanders employ forces and move to assigned operating areas with capability to continue to fight without unplanned operational pauses.

5-4. High-Level Concept Graphic, Decisive Operations

a. As austere sea ports are established, rapid port enhancement and JLOTS capabilities will have closed to the JOA and are employed to expand the capability of these entry points for sustained operations and use by other legacy sealift. This expanding capacity will ensure the near continuous flow of ground forces can be sustained through the combination of current and advanced lift capabilities. The overarching goal is to build ground combat power in the theater as rapidly as possible and provide more options and greater joint capability as the JFC transitions to decisive operations.

b. As follow-on forces close to the JOA the deployment must not be limited to sequential force flow, but be a rapid employment of joint forces through multiple entry points. This rapid employment and responsiveness of follow-on forces will be gained by enabling force projection through multiple, parallel flow of forces into multiple ports of entry.

c. As depicted in figure 5-3, during the decisive operation phase most of the forces have deployed to the JOA and the JFC is conducting decisive operations. During this phase, the Army would transition to the sustain line of operations for seabasing.

the JFC a rapid response capability in addition to current projection of forces or equipment from CONUS or other forward locations.

b. As shown in figure 5-4, during the transition phase the joint force has defeated the enemy and is transitioned to stability or sustainment operations and the JFC has made the decision to reconstitute forces to the sea base. During this phase, the Army would transition to the reconstitute line of operations for seabasing.

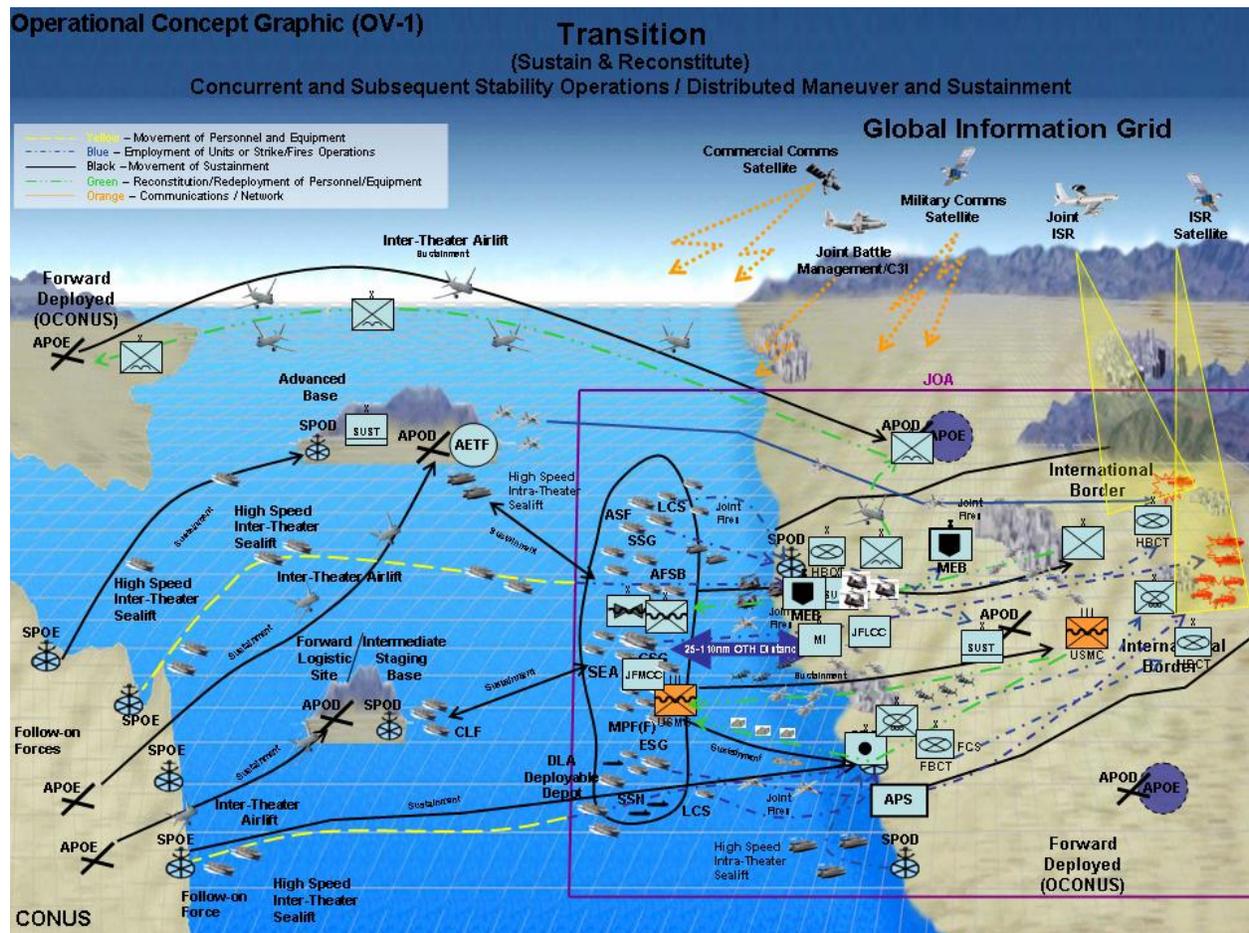


Figure 5-4. Transition Operations Graphic

c. Once the decision is made to reconstitute, selected forces ashore will recover personnel and equipment to the sea base and begin the process of restoring selected combat capability. Once designated joint forces have been recovered to the sea base, the JFC has the option of maneuvering and repositioning within the JOA to support another JOA. This repositioning can occur concurrently with the at-sea restoration of joint force combat capability.

d. This is advantageous to support responsiveness required by future defense guidance for immediate and rapid response forces. Redeploying the sea based force allows the CCDR the ability to rapidly reposition and employ immediate and rapid response forces that have already closed, assembled and integrated. Seabasing provides the responsiveness as directed in defense guidance, to redeploy from one JOA and seize the initiative in another JOA.

5-6. Army Seabasing Operations Operational View (OV) -4, Command Relationship Description

A command relationship description is a graphical depiction of the operational elements involved in a process and the lines of command, control, and coordination among those operational elements. The Army seabasing operations command relationship description is organized at the highest level and shows the major organizations and command relationship for sea based operations. OV-4 is located in appendix D.

5-7. Army Seabasing Operations OV-5, Activity Model

An activity model identifies the higher level task that have to be performed by joint and Army organizations in order to provide effective seabasing operations capability. The model can delineate the detail to identify all supporting tasks, conditions, and standards that ultimately identify the various individual activities, resources requirements, information requirements, and constraints. The Army seabasing operations activity model is organized at the highest level and shows the major task that are preformed to underpin seabasing. OV-5 is located in appendix E.

Chapter 6

Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLPF) Questions Architecture

6-1. Introduction

a. There are significant implications for the Army and the joint community as we look at developing Army seabasing operations. The Army needs to ensure the synchronization of these operations across the DOTMLPF domains. Because of the joint interdependence associated with seabasing, some issues will transcend the Army's direct role; however, the ability to influence the design and development of the range of DOTMLPF solutions for the joint force and capabilities is an Army responsibility. Specific areas of seabasing operations initially may be examined fully as an Army capability, but may migrate to an advanced form of integrated joint and Army seabasing capability. The Army concepts used in the development of this CCP include a discussion of the implications of the concepts for DOTMLPF. In many cases those implications relating to seabasing are explicit enough to generate some action for change within the DOTMLPF domains by responsible proponents and agencies.

b. The primary implications arising from TRADOC Pam 525-7-10, vice an exhaustive list, are described below. However, many of the items cited below will require additional analysis before comprehensive actionable recommendations emerge.

(1) What are the most effective organizational designs for implementation of the Army maritime operations concept?

(2) What are the objective and threshold capabilities required for achieving the capabilities and supporting seabasing enablers identified in the seabasing operations concept?

(3) What seabasing operations capabilities does the Army have to provide other services in order for them to implement the seabasing operations concept?

(4) What seabasing operations training and training support capabilities does the Army have to provide to other services or integrate with other services to implement the “train-as-you-fight” concept?

6-2. Doctrine

a. Emerging joint and Army doctrine will focus on the necessary capabilities to engage adversaries across the full range of joint operations sharing common systems, tactics, techniques, and procedures (TTPs), and doctrine. The doctrinal concepts necessary to initiate the organizational and cultural changes are described in the CCJO, and the concepts within the Army Concept Strategy. These concept documents must also be viewed in light of existing Army doctrinal publications such as: Field Manual (FM) 1, FM 3-0, and FM 6-0.

b. As the future Modular Force nears operational readiness, these documents will continue to evolve. The evolution of organizations is driven by concepts and doctrine. Consequently, new doctrine and TTPs will be required to effectively plan and manage battles collaboratively. Evolving Army doctrine must seamlessly integrate joint doctrine to optimize planning and execution of war fighting operations at all levels. Doctrine questions include, but are not limited to the following.

- (1) How does joint doctrine influence Army seabasing operations?
- (2) Does current joint seabasing doctrine exist?
- (3) Is current joint seabasing doctrine adequate?
- (4) Does joint doctrine adequately address the joint interdependence of the Services in the area of seabasing operations?
- (5) Does current Army seabasing doctrine exist?
- (6) Is current Army seabasing doctrine adequate?
- (7) What are the impacts of international law on joint and Army seabasing doctrine?
- (8) What are the impacts of national rules of engagement, policies, and law on Army seabasing doctrine?
- (9) Is seabasing operations adequately addressed in Army doctrine for the theater, corps, and division doctrinal publications?
- (10) Are current TTPs adequate to execute required Army seabasing operations?

(11) Do proponent doctrinal publications integrate requisite Army seabasing operations?

(12) What emerging technologies, processes, and capabilities need to be codified in Army seabasing doctrine?

6-3. Organization

a. To effectively support future operations, organizations must transform into more modular, scalable, mission-tailorable organizations with multifunctional capabilities. They must become more versatile and agile to support joint operations and must possess capabilities to adequately support the operations of maneuver and support forces. Joint mutual support becomes the key factor in determining Service roles and missions and mission context will determine the apportionment of Army headquarters and forces. The range of missions assigned to Army forces will force an alignment change from the traditional command echelons. Army HQ will support the GCC with the command structure appropriate for land operations.

b. The rank of the commander and the functions of the HQ will not necessarily correspond to the numbers of forces assigned to it. In many operations, the number and composition of subordinate units will differ dramatically. As each operation unfolds, the makeup of the deployed Army force will evolve, shifting in composition as the mission and circumstances require. While units that are stationed with the HQ may align for training and readiness, actual operational groupings will be based upon mission requirements. Organizational questions include, but are not limited to the following.

(1) What are the appropriate organizational structures to enable effective Army seabasing operations?

(2) Are current Army organizations adequate to meet the seabasing operations requirements of the future Modular Force?

(3) Can current organizational structures be augmented to satisfy the capabilities of Army seabasing operations?

(4) Is a new organizational structure required to achieve the required seabasing capabilities?

(5) What Army seabasing operations capabilities should reside in our operational and strategic forces?

(6) What Army seabasing operations capabilities should reside in Army organizations and in which component should they reside?

6-4. Training

a. Doctrine and organizational change cannot be realized without changes to our training systems. Training ensures that our future Modular Force is able to conduct the operations

envisioned in joint and Army concepts. By embedding seabasing capabilities into future Modular Force training, commanders and leaders will begin to realize the impact of applied sea power. Training simulations that include virtual seabasing operations and seabasing combat support planning, and assessment will improve our training opportunities in the functional areas of battle command, OE awareness, force application, strike operations, protection, and sustainment.

b. Army training must be flexible enough to train and incorporate new technologies as they mature, and become available. The Army must develop Soldiers and leaders who possess a joint and expeditionary mindset and who are able to optimize the seabasing capabilities available to them. Training questions include, but are not limited to the following.

(1) How is the integration and application of maritime power included in current training and leader development?

(2) How can the Army adapt its training to better integrate Army seabasing operations?

(3) How will evolving technologies and ongoing or planned changes in organization affect the ways in which Army units and leaders operate and what are the training implications of these changes to support Army seabasing operations?

(4) How will evolving seabasing doctrine affect units and leaders?

(5) What training designs will develop units and leaders able to capitalize on the full range of seabasing capabilities?

(6) What are the seabasing operations training requirements for enlisted personnel, noncommissioned officers, officers, contractors and DA civilians?

(7) What type, scope, and frequency of Army seabasing operations training must the future Modular Force conduct to enable effective operations?

(8) What test and training ranges are necessary to support maritime and sea based training?

(9) What seabasing modeling and simulations are required to support Army seabasing operations at the tactical, operational, and strategic levels?

(10) What joint seabasing training is necessary and for whom?

(11) What national and commercial agency seabasing training is necessary and for whom?

c. The above training questions in turn lead to even more detailed questions about what will be affected by the Army's need for seabasing training. They include the following.

(1) How should current Professional Military Education courses and distributed learning products be modified based on the training analysis that the training developer will conduct?

(2) What are the critical, collective, and individual tasks, and supporting skills and knowledge required?

(3) Will these tasks, skills, and knowledge be different from the tasks, skills, and knowledge that have already been identified for similar unit missions and job tasks?

(4) What are the institutional, individual, and collective training products required to implement this concept?

(5) Will this concept require new materiel systems that also require new institutional, self-development, and organizational training products for those systems?

(6) What additional qualification and currency requirements will personnel (for example, aviators and others) have to train to in order to operate in a sea base environment?

6-5. Materiel

a. Resources are always limited and the joint interdependence of seabasing operations makes the selection and development of seabasing systems and sea based operations materiel more demanding and difficult. Modernization and sustainment ensure that baseline capabilities are maintained and future Modular Force capabilities are pursued. Realization of the Army seabasing operations concept is dependent upon the development and incorporation of advanced technology in the domain of the sea.

b. Seabasing operations materiel solutions must proceed along a top-down, joint-driven path. Materiel questions include, but are not limited to the following.

(1) What seabasing platforms are needed for the future Modular Force?

(2) What commercial seabasing assets are needed to support future Modular Force operations?

(3) What seabasing ISR assets are necessary to support future Modular Force operations?

(4) What is the role of commercial sea based systems in ISR?

(5) What ground terminal systems are needed?

(6) What position, velocity, timing, and navigation systems are needed for the future Modular Force?

(7) What weather and environmental monitoring systems are needed for the future Modular Force?

(8) What early warning detection, assessment, and dissemination systems are needed for the future Modular Force?

(9) What C2 systems are needed to meet the requirements of the future Modular Force?

(10) What high altitude long-loiter assets are needed and what is the role of these systems in providing dedicated and persistent support to the war fighter?

(11) How will sea based systems contribute to the establishment of a single, integrated, network enabled joint battle command system?

(12) How will sea based systems enable multi-echelon and multidimensional ISR, fires, and maneuver that are fully networked?

(13) What are the required sea based systems to support the expanding role of unmanned systems on the battlefield?

(14) What sensor-to-shooter linkages are needed to support future Modular Force operations from the sea?

(15) How will sea based systems enable dominant SU?

(17) What additional changes, additions, and upgrades to equipment must be made in order to operate in a sea base environment?

6-6. Leadership and Education

a. One of the keys in enabling effective Army operations will be the development of leaders and staffs who can perform effectively across the spectrum of conflict in a complex, uncertain, and dynamic OE. Leaders must be educated, trained, and developed to be self-aware, innovative, and adaptive throughout training and operations. In the area of sea based operations they must think strategically and operationally as well as tactically, possess a joint and expeditionary mindset, and successfully apply the joint and Army aspects of sea power.

b. Leaders will also need joint, interagency, intergovernmental, and multinational education, and experience early in their careers. Doctrine will provide an operational foundation, and combined with educational opportunities that provide an intellectual foundation our leaders will be as comfortable with seabasing operations as they are with terrestrial operations. Leader development questions include, but are not limited to the following.

(1) How does the Army develop more adaptive sea savvy leaders?

(2) How does the Army provide excellent leader development in the area of maritime operations in a joint and multinational construct?

(3) How does the Army develop leaders ready to deal with the complexity of maritime operations, its associated operating environment, threats, and interagency implications?

(4) What maritime leader development programs are needed in officer, warrant officer, and non commissioned officer evaluation systems?

(5) What civilian maritime leader development programs are needed?

6-7. Personnel

a. Soldiers are the Army's greatest resource and the most important factor in maintaining and effecting unit readiness. The integration of maritime operations into future Modular Force operations will increase the demands on an already stressed population. Selecting and assigning the right personnel to maritime related positions and occupational specialties is a difficult task. The personnel management system must ensure that it provides the career paths needed to utilize fully the maritime expertise of the force. New organizational constructs may rely on experienced civilian personnel to provide the expertise needed to support training readiness and global maritime operations.

b. The right combinations of active Army, active reserve, DA civilian, and contractor attendants can only be determined through research and exercise. Personnel questions relating to maritime operations include, but are not limited to the following.

(1) How does the Army recruit and retain the personnel necessary to perform Army maritime operations functions?

(2) What maritime skill sets are required in DA civilian and contractor support personnel?

(3) What is the best means of selecting Army maritime officers?

(4) Should the Army's pre-commissioning programs include a maritime operations component?

(5) What is the right mix of personnel between maritime professionals and other personnel selected to serve in seabasing related positions?

6-8. Facilities

a. As the Army's role in maritime operations continues to grow, so does demand for a supportive facilities infrastructure. The joint nature of maritime operations will require costal facilities, adequate security, and facilities to support the training and operational forces. These facilities will have varying capabilities of training, projection, reach, and knowledge. Installation information facilities will enable distributed information sharing among the sustaining base and deployed forces during all phases of operation.

b. Installations will require suitable facilities for skilled civilian personnel supporting a military staff. Maritime training ranges and maritime labs in addition to modeling and simulations may be needed. Facilities questions include, but are not limited to the following.

(1) Are there adequate facilities available to Soldiers, leaders, battle staffs, non-uniformed personnel, and units to attain and maintain acceptable levels of maritime training effectiveness?

(2) What infrastructure is required at forts and installations to adequately support seabasing operations in both training and operational constructs consistent with Army, joint and multi-national concepts?

(3) What infrastructure is required in theater to support Army seabasing operations missions?

(4) What installation infrastructures are needed to support home station seabasing operations functions?

Chapter 7

Hypothesis Testing Experimentation and Wargames

7-1. Introduction

a. The Army is pursuing the most comprehensive transformation of its forces since the early years of World War II. This transformation is happening while the Nation is at war. The urgency of supporting the current fight blurs the usual dichotomy between the current and future force. The Army must seek to accelerate inculcation of select future Modular Force capabilities into the current Modular Force to support today's fight, while simultaneously ensuring that lessons learned today are applied to future Modular Force developments.

b. This transformation encompasses more than materiel systems. Adaptive and determined leadership, innovative concept development and experimentation, and lessons learned from recent operations produce corresponding changes in the DOTMLPF domains. Experimentation, wargames, and experience are the methods the Army uses to mitigate risk while considering and improving capabilities for the future Modular Force.

7-2. Experimentation

a. Experimentation is the process of exploring innovative methods of operation to assess feasibility, evaluate utility and or determine limitations of the concepts being explored. Experiments conducted in support of JCIDS efforts are based on the 2015–2024 timeframe. The Army also conducts wargames using futuristic scenarios (15 to 20 years and beyond) to explore concepts in order to better define which of those concepts should be the subject of experimentation. Army experimentation is usually conducted in the form of discovery (usually in a constructive modeling and simulation environment), hypothesis (also in a modeling and

simulation environment but with human in the loop role players) and demonstration (live and simulation) settings.

b. Discovery experiments are designed to inform a concept. The setting tends to lack the degree of control necessary to infer cause and effect.

c. Hypothesis testing experiments. Hypothesis testing experiments are the traditional type used by individuals to build, confirm, and advance knowledge. This occurs by seeking to falsify specific hypotheses (specifically if...then statements) or discovering their limitations. In order to conduct hypothesis testing experiments, the experimenter shall create a situation in which one or more factors of interest can be observed systematically under conditions that vary the values of factors thought to cause change in the factors of interest, while other potentially relevant factors are held constant.

d. Demonstration experiments are used to display knowledge and the settings tend to be somewhat orchestrated. Often times the Army uses this method to display prototypes of emerging technologies that are nearing maturity and are potentially ready for fielding to the force.

7-3. Modeling and Simulations

Models and simulations are used to make an informed assessment. Scenarios or vignettes are built to look at one or more sets of conditions that will best help to evaluate these hypotheses, but the raw data is often not conclusive or requires reasoned review by seasoned subject matter experts to confirm the reliability of these simulation and modeling efforts.

7-4. Concept Development and Experimentation (CD&E)

a. CD&E is fundamentally a risk reduction activity; failure to conduct effective CD&E significantly increases developmental risk for the future Modular Force and operational risk to the current Modular Force. Specific CD&E is used to reduce operational risk to the current Modular Force and development risk for the future Modular Force.

b. Reducing operational risk to the current Modular Force. CD&E can show how to increase the capabilities of the current Modular Force through prototype experiments that test the compelling solutions and develop DOTMLPF capability packages to support the spiraling forward of future Modular Force capabilities to satisfy critical current Modular Force operational needs.

c. Reducing developmental risk for the future Modular Force. CD&E can show how to reduce future Modular Force development risk by developing concepts and capabilities that meet the needs of the future JFC through rigorous concept development experimentation.

d. Army testing. Army wargaming and experimentation to support TRADOC Pam 525-7-10 and its impact on DOTMLPF sets will be developed and studied using approved Defense Planning Scenarios and vignettes. If required, other scenarios and vignettes may be recommended or other methods found to evaluate aspects of Army seabasing operations.

Experimentation will help define how the capability requirements can best be implemented, see chapter 3.

e. **Joint testing.** Joint wargaming and experimentation must also support TRADOC Pam 525-7-10. Active participation in other Service as well as joint events are critical to the full assessment of the Army's DOTMLPF solution sets. Army organizations and operations will be tested, evaluated, and modified as conditions, within a scenario or vignette change during experimentation. Scenarios and vignettes selected for experimentation will provide an illustration of how Army organizations will conduct or support operations during the entire campaign from deployment through employment to transition and redeployment.

7-5. Wargaming

a. Wargaming is a process of discovery and assessment—discovering insights into the Army seabasing operations and assessing the validity of strategic visions and emerging concepts while looking 20 –to 30 years into the future. Wargaming begins by attaining operational research on future warfighting systems and concepts and applying them to simulated military operations in order to prove or disprove visionary ideas and to discover gaps and seams in future Army sea based operations.

b. Wargaming examines the Army operational and functional concepts of TRADOC Pam 525-2-1, TRADOC Pam 525-3-1, TRADOC Pam 525-3-2, TRADOC Pam 525-3-3, TRADOC Pam 525-3-4, TRADOC Pam 525-3-5, TRADOC Pam 525-3-6, TRADOC Pam 525-4-1, the results of which informs experimentation and eventually informs the development and refinement of Army seabasing conceptual operations, TTPs, architectures, and future systems. Wargame personnel lead participation in Army and JIIM wargames to integrate Army seabasing assets, concepts, and visions into wargame scenarios, orders of battle, force lay downs, and computer simulations.

7-6. Past and Future Experimentation and Wargames

a. The joint community and TRADOC have conducted extensive experimentation that has implications on this CCP. The following is a list of major experiments and wargames conducted involving seabasing operations.

(1) **Unified Quest 2004.** Air assault battalion task force employed from a single converted container ship, augmented a Marine expeditionary brigade in operations to secure access through a major port in a major combat operation. Capability judged to be worth further exploration, but the battalion task force was not operationally significant in an operation of that size and scope.

(2) **Sea Viking 2004.** Used modified Unified Quest 2003/2004 Sumesia scenario scaled down to a small scale contingency lending itself to a joint forcible entry operation "coup de main." AFSB employed within the sea base from 25 nm offshore with objectives up to 75 nm inland. Air assault objectives support seizure of landing zones for heavy lift vertical takeoff and

landing insertion of FCS equipped BCT, among other capabilities played in Sea Viking 2004, the AFSB reduced reliance on vulnerable fixed facilities for projecting forces into the theater.

(3) Unified Quest 2005. AFSB employed with an operational strike group (IBCT and composite combat aviation brigade in an Aegean Sea within sea base (25 nm offshore, objectives up to 100 nm inland). Distances limited full utilization of concept. The operational strike group had operational control of Army aviation helicopters with longer ranges and higher speeds than current Navy helicopters. The AFSB had to operate off the southern Greek shore extending the overland flight distance to inland objectives. Secured FOBs to facilitate further projection of land forces.

(4) Vigilant Warrior. Concept for an operational strike group, with the capabilities for achieving an operational effect for the JFC that significantly contributes to the success of his mission. Concept for an AFSB. Explored how the joint force sets conditions to maneuver vertically an operational strike group from the sea base or other ISB given anti-aircraft artillery, man-portable air defense system, and short range ballistic missile threats.

b. Future experimentation. The J8 Joint Seabasing Working Group is pursuing a joint seabasing analysis and wargaming initiative in conjunction with the development of four overarching functional solutions analyses.

c. In addition to these listed events there are many small analysis events and experiments that occur within the U.S. Combined Arms Support Command Battle Lab and throughout various installations that will also provide insights to further refine TRADOC Pam 525-7-10.

7-7. Study Questions

a. The Integrated Questions List provides a list of questions which support future experimentation. Some are included below.

b. Determine the Army sea based capabilities required to operationally maneuver at sea an Army light maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of an embarked IBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to operationally maneuver at sea the IBCT based maneuver force?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to maneuver operationally at sea the IBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to maneuver operationally at sea an IBCT based maneuver force, afloat and ashore?

c. Determine the Army sea based capabilities required to employ ashore an Army sea based light maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to employ ashore the IBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the sustainment capabilities required to employ the IBCT based maneuver force ashore?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to employ ashore the IBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to employ ashore an IBCT based maneuver force, afloat and ashore?

d. Determine the Army sea based capabilities required to sustain an Army sea based light maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to sustain the IBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to sustain the IBCT based maneuver force, afloat and ashore?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to sustain the IBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to sustain an IBCT based maneuver force afloat and ashore?

e. Determine the Army sea based capabilities required to operationally maneuver at sea an Army heavy maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of an embarked HBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to maneuver operationally at sea the HBCT based maneuver force?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to maneuver operationally at sea the HBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to maneuver operationally at sea an HBCT based maneuver force, afloat and ashore?

f. Determine the Army sea based capabilities required to employ ashore an Army sea based heavy maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to employ ashore the HBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the sustainment capabilities required to employ the HBCT based maneuver force ashore?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to employ ashore the HBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to employ ashore an HBCT based maneuver force, afloat and ashore?

g. Determine the Army sea based capabilities required to sustain an Army sea based heavy maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to sustain the HBCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to sustain the HBCT based maneuver force, afloat and ashore?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to sustain the HBCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to sustain an HBCT based maneuver force afloat and ashore?

h. Determine the Army capabilities required to operationally maneuver at sea an Army sea based SBCT FCS-equipped BCT based maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of an embarked SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to maneuver operationally at sea the SBCT FCS-equipped BCT based maneuver force?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to maneuver operationally at sea the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to maneuver operationally at sea the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

i. Determine the Army sea base capabilities required to employ ashore an Army sea based SBCT FCS-equipped BCT based maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to employ ashore the SBCT FCS-equipped BCT maneuver force, afloat and ashore?

(2) What is the Army organizational structure and footprint of the combat service support capabilities required to employ ashore the SBCT FCS-equipped BCT based maneuver force?

(3) What is the Army organizational structure and footprint of the C2 capabilities required to employ ashore the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to employ ashore the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

j. Determine the Army sea based capabilities required to sustain an Army sea based SBCT FCS-equipped BCT maneuver task force involved in a JFEO or MCO.

(1) What is the Army organizational structure and footprint of the supporting forces to sustain the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

(2) Determine the Army organizational structure and footprint of the combat service support capabilities required to sustain the SBCT FCS-equipped BCT based maneuver force, afloat and ashore.

(3) What is the Army organizational structure and footprint of the C2 capabilities required to sustain the SBCT FCS-equipped BCT based maneuver force, afloat and ashore?

(4) What are the Army capability requirements to sustain the SBCT FCS-equipped BCT based maneuver force afloat and ashore?

k. Determine the joint service capabilities required to support the Army sea based maneuver task force involved in the JFEO or MCO.

(1) What joint combat capabilities are required to support the sea based Army force, afloat and ashore?

(2) What joint combat support capabilities are required to support the sea based Army force, afloat and ashore?

(3) What joint combat service support capabilities are required to sustain the sea based Army force, afloat and ashore?

(4) What joint movement capabilities are required to maneuver operationally the sea based Army force, afloat and ashore?

(5) What joint C2 capabilities are required to C2 the sea based Army force, afloat and ashore?

l. Determine the Army capabilities required to deploy and employ prepositioned forward deployed forces to and through a joint seabase.

(1) Determine what air and surface deployment capabilities will exist in 2015 and beyond.

(2) Identify what joint systems and process could be in place in 2015 and beyond to support the employment of prepositioned forces from a sea base to the shore.

(3) Identify how improved information systems and management might affect the employment of forces from the sea base to the shore.

(4) How long does it take for Army prepositioned enablers to prepare, transit, and arrive at a sea base?

m. Determine the Army capabilities required to reconstitute force in a joint sea base.

(1) Determine what afloat capabilities will exist in 2015 and beyond to support afloat reconstitution of forces.

(2) Identify what joint systems and process could be in place in 2015 and beyond to support the reconstitution of force afloat.

(3) Identify how improved information systems and management might affect the reconstitution of force afloat.

n. Determine the Army capabilities required to deploy and assemble immediate response to and through a joint seabase.

(1) Determine what air and surface deployment capabilities will exist in 2015 and beyond.

(2) Identify what joint systems and process could be in place in 2015 and beyond to support the employment of prepositioned forces from a sea base to the shore.

(3) Identify how improved information systems and management might affect the employment of forces from the sea base to the shore.

o. Determine the best mix of current and future air and surface distribution platforms will provide the capability to deploy and employ the future Modular Force from strategic distances.

(1) Identify what joint deployment systems could be in place in 2015 and beyond to support the future Modular Force deployment and employment from strategic distances.

(2) Determine what air and surface deployment capabilities will exist in 2015 and beyond.

Chapter 8

Alternative Army Seabasing CCP

8-1. Introduction

a. TRADOC Pam 525-7-10 attempts to provide a concept for integrated sea based operations and how Army capabilities will be integrated into the joint seabasing concept during MCO. However, seabasing will be used across the spectrum of operations as access to ports and operational areas continue to dwindle due to political reasons. This chapter will outline how a sea base is used to support different operations from humanitarian assistance to stabilization, security, transition, and reconstruction.

b. The seabasing capabilities in chapter 3, are based on the contents and focus of each of the six Army functional concepts and the Seabasing JIC and apply to all Army seabasing CCP efforts. Chapter 4 is organized based on force operating capabilities found in TRADOC Pam 525-66 and apply across all CCPs. Army seabasing will be an integral component of future Modular Force operations across the spectrum of conflict.

8-2. Humanitarian Assistance and Disaster Relief

a. Disasters, both natural (hurricanes or earthquakes) or manmade (chemical explosions or nuclear power plant contamination) present a vivid image of human suffering and result in a concerted effort to provide assistance. Large scale disasters present support challenges to the U.S. and international community. In many instances, large portions of the basic infrastructure will be destroyed and will complicate relief efforts. The seabasing concept articulates a unique capability to provide needed assistance during these disasters. With its ability to reside and operate from up to 25 nm from the coastline, the sea base can operate and deliver relief supplies, medical assistance, and security assistance where and when needed.

b. The sea base could bypass damaged infrastructure and deliver needed relief more quickly and efficiently through a combination of surface and air platforms. Also, the sea base is able to produce and provide potable water that could be transported to designated areas. Additionally, the sea base could be augmented with support units such as water production and distribution elements, medical support elements, engineer support elements, aviation support elements, communication support and logistic support elements along with critical relief items such as food and building materials. The sea base could also provide emergency communication to the local area as well as security of key nodes and infrastructure. Finally, the sea base could act as a operation base for the humanitarian assistance and disaster relief support effort by hosting and

providing reach back capabilities for non-governmental and private voluntary organization's C2 elements.

8-3. Stabilization, Security, Transition, and Reconstruction Operations (SSTR)

a. Military support to SSTR operations focuses on the full range of support that the future joint force might provide in foreign countries. This support can be across the continuum from peace to crisis and conflict, in order to assist a state or region under severe stress. The support can be offered after the country has collapsed due to defeat in war in order to build a new domestic order. A SSTR operation is not solely a military effort, but rather one that requires a carefully coordinated deployment of military and civilian, public and private, U.S. and international assets.

b. The Secretary of State is the designated lead for the U.S. government's efforts to prepare, plan for, and conduct SSTR activities. Therefore, the U.S. military will conduct SSTR operations in support of a broader U.S. government effort to advance U.S. interests by assisting an existing government with internal challenges or helping establish a new social, economic, and political domestic order in the short-term, and in the longer term, by establishing conditions for a sustainable peace.

c. When assisting in rebuilding a new domestic order, U.S. military efforts in SSTR operations will be focused on effectively combining the efforts of the U.S. and coalition militaries with those of U.S. government agencies and multinational partners to provide direct assistance to stabilize the situation and build self-sufficient host nation capability and capacity in several key areas. These efforts, labeled major mission elements, are executed in a concurrent manner and are integrated and tailored to the specific situation. The SSTR JOC identifies the six major mission elements as establish and maintain a safe, secure environment; deliver humanitarian assistance; reconstruct critical infrastructure and restore essential services; support economic development; establish representative, effective governance and the rule of law; and conduct strategic communication.

d. Seabasing provides the JFC with a unique capability in the conduct of SSTR operations. With its ability to reside and operate from up to 25 nm from the coast line, it can operate in relative safety while still providing the JFC the ability to maneuver and employ forces where and when the JFC chooses.

e. The sea base can deliver personnel and supplies through several nodes via a combination of surface and air platforms providing the capability to rapidly reposition forces to meet security challenges as they arise. Also, the sea base is able to produce potable water, fuel, supplies, and medical capability to distributed operating locations to assist in reconstruction effort of the supported nation. Additionally, the sea base could be augmented with other support units, such distribution elements, medical support elements, engineer support elements, aviation support elements, communication support, and logistic support elements, and provide critical supplies such as food and building materials. The sea base could also provide emergency communication to the local area as well as security of key nodes and infrastructure. Finally, the sea base could act as an operation base providing a safe haven in which to plan and execute operations.

8-4. Future CCP and Joint Capabilities Integration and Development System (JCIDS) Efforts

The integrated concept development team that wrote TRADOC Pam 525-7-10 consisted of 10 core members and 15 supporting members (including representatives from other joint and Service organizations). Each of these proponents is likely to develop its own concept or plan for how it will operate in the future. The number of proponents and organizations involved and the range of their responsibilities indicates that the development of additional CCPs, which include seabasing enabling capabilities, is likely. The underlying intent of TRADOC Pam 525-7-10 is to provide a holistic view of the Army's seabasing capabilities of the future Modular Force. A component of the plan is to maximize the use of existing joint CBA products where appropriate.

Appendix A References

Section I Required References

Capstone Concept for Joint Operations.

Focused Logistics Joint Functional Concept.

Joint Forcible Entry Operations Joint Integrating Concept.

Joint Logistics (Distribution) Joint Integrating Concept.

Major Combat Operations Joint Operating Concept.

Seabasing Joint Integrating Concept.

TRADOC Pamphlet 525-3-0

The Army in Joint Operations The Army's Future Force Capstone Concept 2015-2024.

TRADOC Afloat Forward Staging Base Concept of Operations.

Section II Related References

Army Concept Capability Development Plan (AC2DP).

Army Concept Development and Experimentation Plan.

Army Strategic Planning Guidance.

Defense Planning Guidance.

Field Manual 4-0

Combat Service Support.

Field Manual 7-15

Army Universal Task List.

Field Manual Interim 3-35

Army Deployment and Redeployment.

Focused Logistics Campaign Plan.

Chairman Joint Chiefs of Staff Instruction (CJCSI) 3170.01E

Joint Capability Integration Development System Instructions.

CJCSM (Manual) 3170.01B
Joint Capability Integration Development System Manual.

Joint Operating Concept.

JP 3-0
Joint Operations.

JP 3-35
Joint Doctrine for Deployment and Redeployment Operations.

JP 4-0
Doctrine for Logistics Support of Joint Operations.

JP 4-01.2
Sealift Support to Joint Operations.

JP 4-01.4
Joint Tactics, Techniques, and Procedures for Joint Theater Distribution.

JP 4-09
Joint Doctrine for Global Distribution.

Marin Corp Warfighting Publication 3-31.7
Seabasing.

National Security Strategy.

National Military Strategy.

Naval Operations Concept 2006.

Naval Warfare Publication 3-62M
Seabasing,

Quadrennial Defense Review Report.

Stability Operations Joint Operating Concept.

TRADOC Pam 525-2-1
The United States Army's Functional Concept for See 2015-2024.

TRADOC Pam 525-3-1
The United States Army's Operating Concept for Operational Maneuver 2015-2024.

TRADOC Pam 525-7-10

TRADOC Pam 525-3-2

The United States Army's Concept for Tactical Maneuver 2015-2024.

TRADOC Pam 525-3-3

The United States Army's Functional Concept for Battle Command 2015-2024.

TRADOC Pam 525-3-4

The United States Army's Functional Concept for Strike 2015-2024.

TRADOC Pam 525-3-5

The United States Army's Functional Concept for Protect 2015-2024.

TRADOC Pam 525-3-6

The United States Army's Functional Concept for Move 2015-2024.

TRADOC Pam 525-4-1

The United States Army's Functional Concept for Sustain 2015-2024.

TRADOC Pam 525-4-01

Distribution Operations for the Future Force.

TRADOC Pam 525-7-18

The United State Army's Logistics Command and Control Concept Capability Plan 2015-2024.

TRADOC Regulation 10-5

U.S. Army Training and Doctrine Command.

CJCSM 3500.04D

Universal Joint Task List.

Appendix B
OV-4 Command Relationship Description

B-1. OV-4 Command relationship description

a. A notional command structure for the sea base during the prepare and posture, shape and entry phases of the operations is depicted in figure B-1.

b. Units that are highlighted in green are potential units that will be employed ashore to conduct ground operations. Some of the organizations are depicted as green and blue; this denotes the units that may operate from the sea base or potentially employed ashore. During these phases most of the forces will be under the C2 of the joint force maritime component commander (to include sea based Army units). As the forces conduct the initial entry they will remain under the C2 of the joint force maritime component commander and the amphibious task force control to ensure a seamless operations to decisive operations.

B-2. Command structure

See figures B-1 and B-2 for command structure.

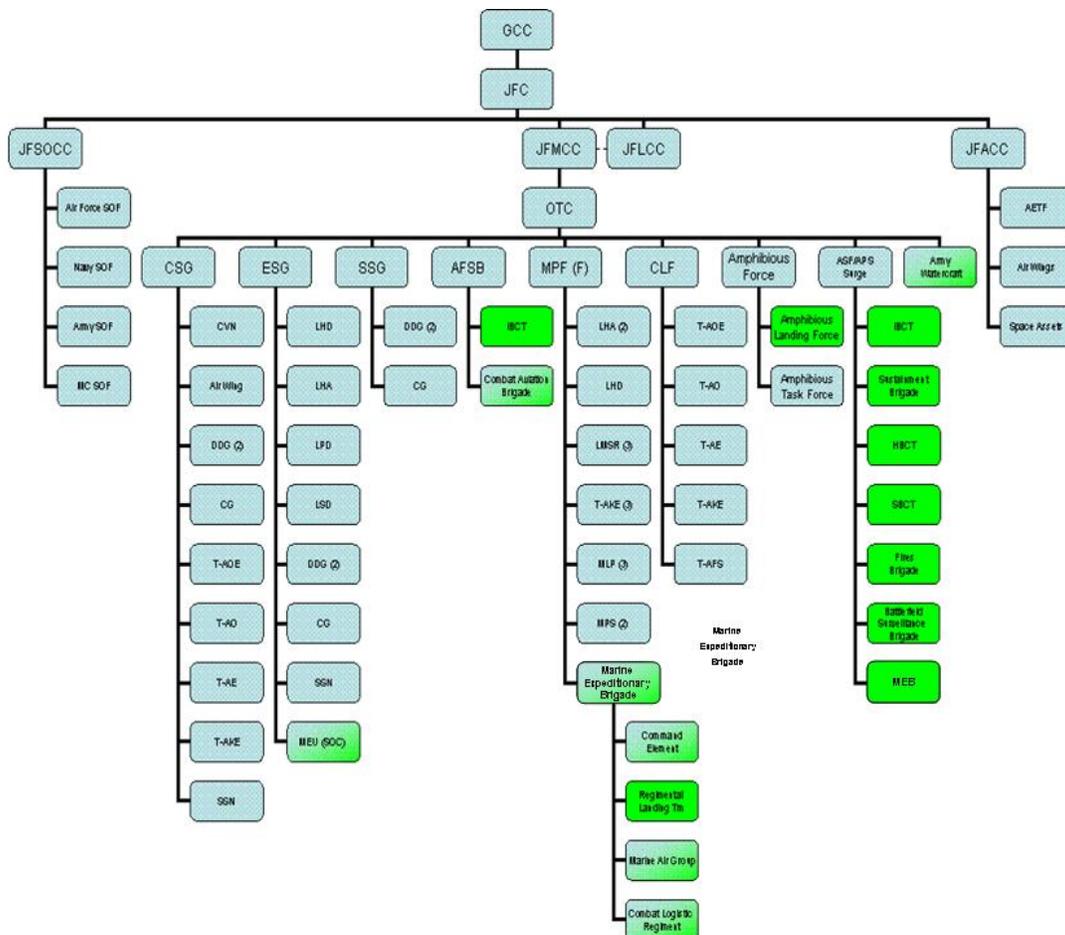


Figure B-1. Command Structure (Prepare and Posture, Shape and Entry)

a. A notional C2 structure for decisive operations and transition phases of the operations is depicted in figure B-2. As units are employed ashore and seize the initiative the JFC will determine when to transition to decisive operations. As the JFC transitions to decisive operations the C2 of forces ashore will transition to the JFLCC. Organizations that are depicted as green and blue will operate both ashore and from the sea base, and will have a direct coordination with JFLCC.

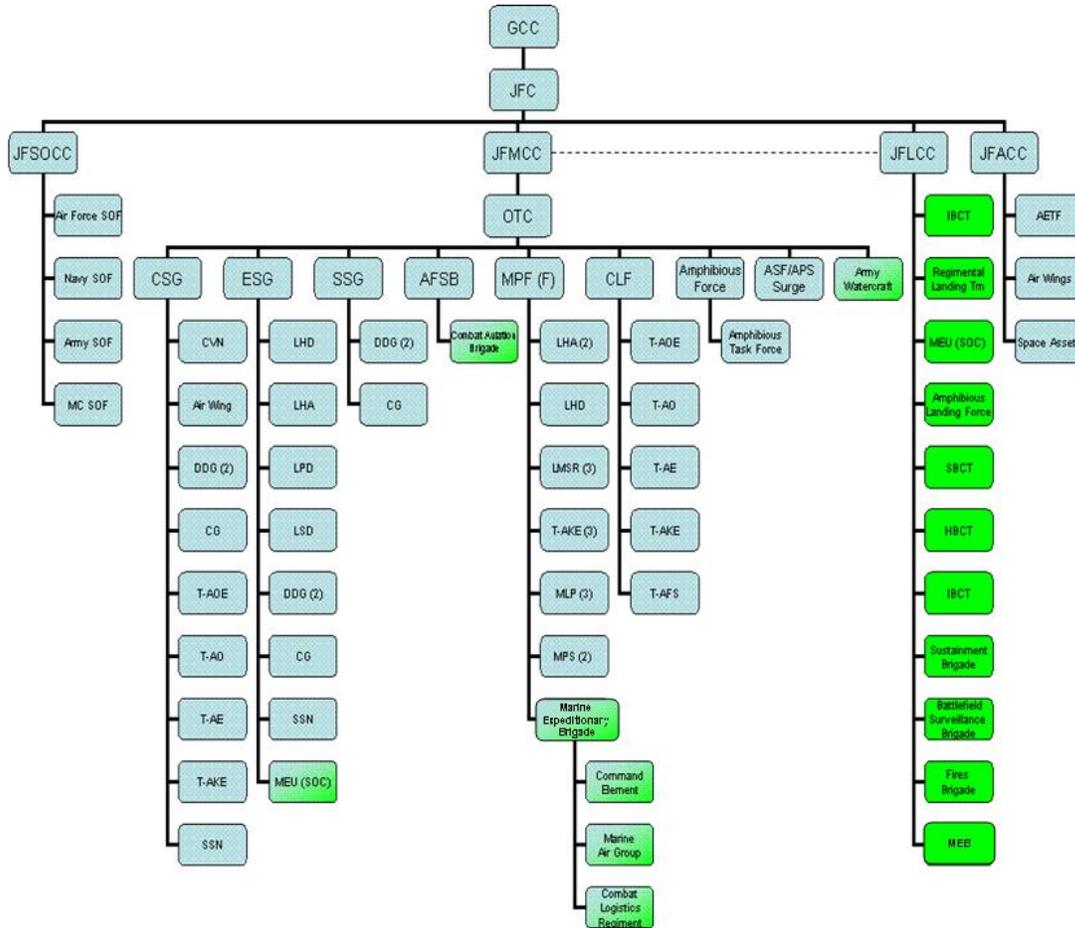


Figure B-2. Command Structure (Decisive Operations and Transition)

b. A notional make up of a potential sea base is depicted in figure B-3. It would include Navy, Marine, Coast Guard, Army, and Air Force organizations and would be scalable to meet the requirements for the mission.

NOTIONAL COMPONENTS OF THE SEA BASE			
U.S. Navy			
Carrier Strike Group (CSG) CVN (Carrier Vessel Nuclear) Air Wing DDG (Z) (Guided Missile Destroyer) CG (Guided Missile Cruiser) T-BOE (Fast Combat Support Ship) T-AO (Replenishment Oiler) T-AE (Ammunition Ship) T-ACE (Auxiliary Cargo and Ammunition Ship) SSN (Submersible Ship Nuclear)	Expeditionary Strike Group (ESG) LHD (Landing Helicopter Dock Ship) LHA (Landing Helicopter Amphibious Ship) LPD (Amphibious Transport Dock) LSD (Landing Ship Dock) DDG (Z) (Guided Missile Destroyer) CG (Guided Missile Cruiser) SSN (Submersible Ship Nuclear)	Maritime Prepositioning Force (MPF) MPFRON (Marine Prepositioned Squadron) Naval Support Element Naval Beach Element Assault Craft Unit - Landing Craft Utility - Landing Craft Mechanized Assault Craft Unit - Landing Craft Air Cooled Beach Master Unit	Surface Strike Group (SSG) DDG (Z) (Guided Missile Destroyer) CG (Guided Missile Cruiser) (Total 3 Ships) Amphibious Task Force Shipping Assault Echelon (AE) (U.S. Navy provided) Assault Follow-on Echelon (AFOE) (MSC provided)
Combat Logistics Force (CLF) T-BOE (Fast Combat Support Ship) T-AO (Replenishment Oiler) T-AE (Ammunition Ship) T-ACE (Auxiliary Cargo and Ammunition Ship) T-ATS (Combat Store Ship)	Navy Expeditionary Combat Command (NECC) Navy Expeditionary Logistics Support Group Explosive Ordnance Disposal Teams Naval Coastal Warfare Forces Expeditionary Security Forces Mobile Diving and Salvage Units Naval Riverine Forces Navy Cargo Handling Battalion	Other U.S. Navy Forces MCM (Mine Countermeasures Ships) HM Squadrons (Helicopter Mine Countermeasures) VR Squadrons (Vulcan Logistics Support) Navy Unique Fleet Essential Aircraft (NUFEA) AS Submarine Tender T-AR (Hospital Ship) T-ARS (Recovery and Salvage Ship) T-ATF (Fleet Ocean Tug)	
Other Services/Joint Forces			
U.S. Marine Corps MEU (SOC) (Marine Expeditionary Unit Special Operations Capable) Amphibious MEB (Marine Expeditionary Brigade) MPF (Maritime Prepositioning Force) MEB Fly-in Echelon	U.S. Army ASF (Army Strategic Fortilla) Landing Force Elements Transportation Battalion (Terminal) - Floating Craft Companies - Heavy Boat Companies - Cannoneer Companies - Support Operations Companies - Island Cargo Transfer Companies - Automation Cargo Documentation Companies - Helicopter Operations Detachments - LSV (Logistics Support Vessels) - TSV (Tender Support Vessels) AFSS (Afloat Forward Staging Base) TAMSG (Theater Aviation Maintenance Support Group)	U.S. Air Force Combat Search and Rescue Air Force Prepositioning Ships (MSC controlled) U.S. Coast Guard Cutters Patrol Boats Port Security Units (PSU) Law Enforcement Detachments (LEDET) Maritime Safety and Security Teams (MSST)	Joint Forces Special Operations Forces (SOF) Elements TRANSCOM T-AMC (Fast Sealift Ship) T-ARV (Aviation Logistic Ship) ROORO (Roll-on/Roll-off Ship) T-ACS (Auxiliary Cargo Ship) RHSV (Joint High Speed Vessel) Troop Ships Sea Range Heavy Lift Ship OPLS (Onshore Petroleum Discharge System) Tanker Strategic Airlift (AMC) C-5 C-17 C-130

Figure B-3. Notional Components of a Sea Base

c. A notional timeline for the arrival of Army components that would reside in a sea base is depicted in figure B-4.

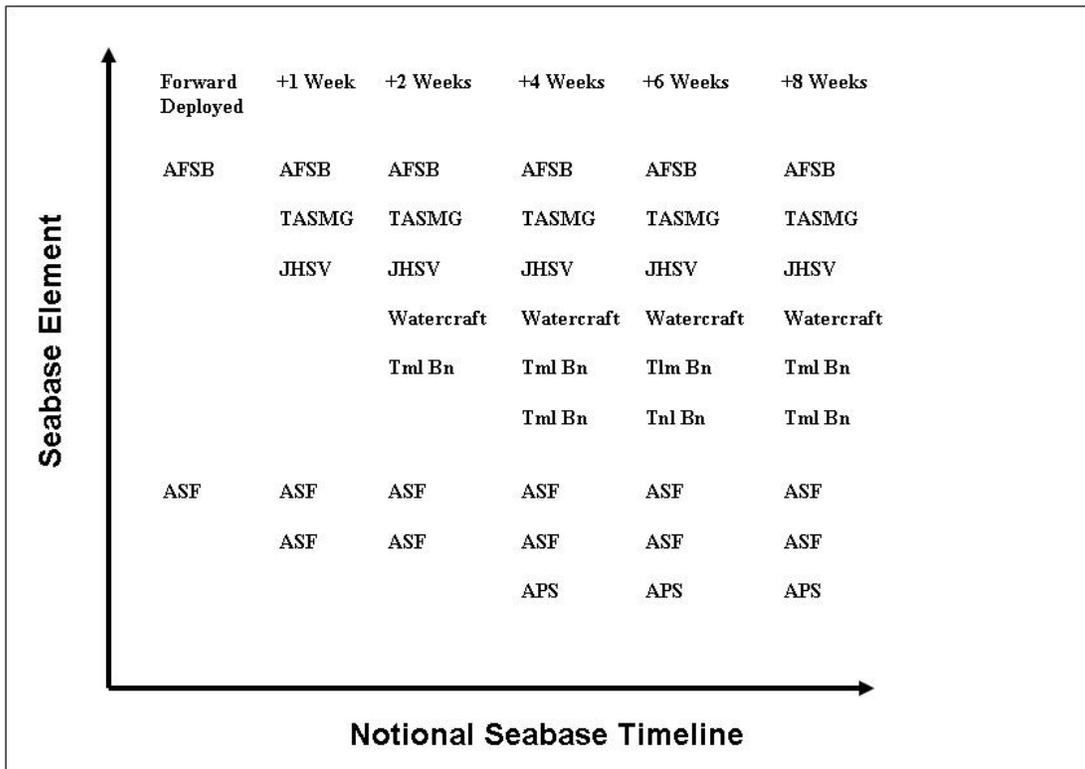


Figure B-4. Notional Seabasing Timeline

Appendix C
OV-5 Activity Model

C-1. OV-5 Activity Model

a. An activity model identifies the higher level tasks, using the universal joint task list, Army universal task list, Army training and evaluation programs, military training plans, and user defined tasks that have to be performed by joint and Army organizations in order to provide an effective seabasing operation capability. The model can delineate the detail to identify all supporting tasks, conditions, and standards that ultimately identify the various individual activities, resource requirements, information requirements, and constraints.

b. The Army seabasing operations activity model is organized at the highest level to show the major tasks that are performed to underpin seabasing. The key high level tasks are shown in figure C-1 and discussed below.

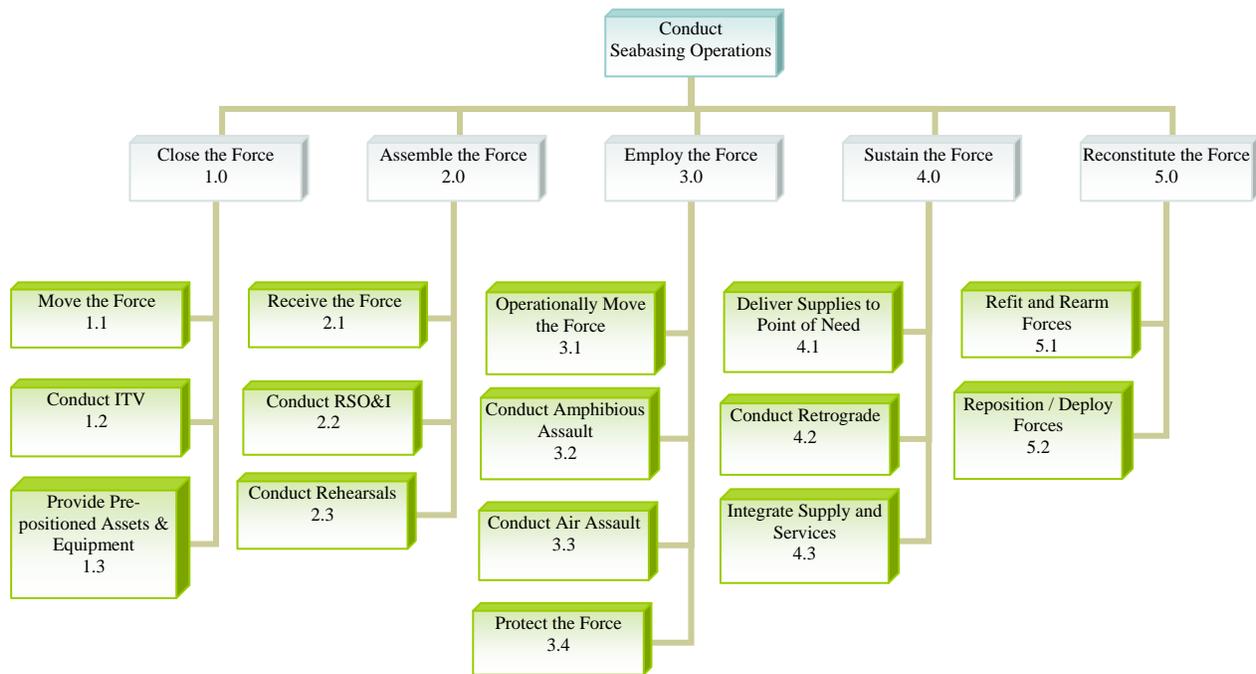


Figure C-1. Seabasing Operations Activity Node Tree

C-2. Seabasing Operations Activity Nodes

a. Close the force. This identifies those activities that need to be performed or supported by joint and Army organizations to deploy the force into the theater or operations and to its staging or deployment locations.

b. Assemble the force. This identifies those activities that need to be preformed or supported by joint and Army organizations to receive the force at the sea base and conduct RSO&I operations to prepare the force for employment.

c. Employ the force. This identifies those activities that need to be performed or supported by joint and Army organizations to employ the force from the sea base to operational objectives within the JOA.

d. Sustain the force. This identifies the activities that are required to be performed or supported by joint and Army organizations that are required to physically deliver items to the point of need, including routine operation of a retrograde capability and replenishment as an integrated activity, to provide for user requirements.

e. Reconstitute the force. This identifies the activities that are required to be performed or supported by joint and Army organizations, in order to reconstitute or move forces from the land to sea based platforms, refit and rearm the forces and move to another operational area either in the JOA or move to another JOA.

Appendix D

Navy Warfare Development Command: Sea Power 21 Concept

D-1. Sea Power 21 Concept

a. The Sea Power 21 concept will guide the Navy as it defends the Nation and defeats the enemies in the future. It will align efforts, accelerate progress, and realize the potential of the Navy. Sea Power 21 defines a Navy with three fundamental concepts: sea shield, sea strike, and seabasing, enabled by FORCEnet. Respectively, they enhance America's ability to project offensive power, defensive assurance, and operational independence around the globe. A supporting triad of initiatives will develop those core operational concepts: sea warrior, sea trial, and sea enterprise.

(1) Sea shield develops naval capabilities related to homeland defense, sea control, assured access, and projecting defense overland. By doing so, it reassures allies, strengthens deterrence, and protects the joint force.

(2) Sea strike is a broadened concept for naval power projection that leverages enhanced information systems ISR, precision, stealth, and endurance to increase operational tempo, reach, and effectiveness.

(3) Seabasing projects the sovereignty of the U.S. globally while providing the JFC with vital C2, fire support, and logistics from the sea, thereby minimizing vulnerable assets ashore.

(4) Sea warrior is the process of developing 21st century sailors. It identifies the knowledge, skills, and abilities needed for mission accomplishment; applies a career-long training and education continuum; and employs a responsive, interactive career management system to ensure the right skills are in the right place at the right time.

(5) Sea trial is a continual process of concept and technology development through focused wargames, experiments, and exercises. It strengthens the Navy's culture of innovation and accelerates the delivery of enhanced capabilities to the fleet.

(6) Sea enterprise captures efficiencies by employing lessons. From the business revolution to assess organizational alignment; target areas for improvement, and prioritize investments.

(7) FORCEnet is an overarching effort to integrate warriors, sensors, networks, command and control, platforms, and weapons into a fully netted, combat force. FORCEnet is the Navy's plan to make network-centric warfare an operational reality.

b. Sea Shield

(1) Sea shield will protect national interests with layered global defensive power based on control of the seas, forward presence, and networked intelligence. It will use these strengths to assure access to contested littorals and enhance homeland defense. It will give naval forces

the ability to project defensive power deep overland, protecting territory of allied countries and joint forces ashore. As with sea strike, the foundation of these integrated operations will be information superiority, total force networking, and an agile and flexible sea based force.

(2) Sea shield represents a broadened mission for the Navy that will lessen the defensive burden on land forces and increase sea based influence over operations ashore.

(a) Sea shield impact. Projected defense for joint forces and allies ashore, sustained access for maritime trade, coalition building, and military operations extended homeland defense via forward presence and networked intelligence, and enhanced international stability, security, and engagement.

(b) Sea shield capabilities include sea and littoral superiority, theater air missile defense, and force entry enabling.

(c) Future sea shield technologies. Interagency intelligence and communications reach-back systems, organic mine countermeasures, multi-sensor cargo inspection equipment, advanced hull forms and modular mission payloads, directed-energy weapons, autonomous unmanned vehicles, common undersea picture, single integrated air picture, distributed weapons coordination, and theater missile defense.

(d) Sea shield action steps. Expand combat reach, deploy theater missile defense as soon as possible, create COPs for air, surface, and subsurface forces, accelerate the development of sea based unmanned vehicles to operate in every environment, and invest in self-defense capabilities to ensure sea superiority.

(4) Achieving OE superiority in forward theaters is central to the Sea Shield concept, especially as enemy area denial capabilities increase. In times of rising tension, prepositioned naval units will sustain access for friendly forces and maritime trade by employing expeditionary sensor grids and advanced deployable systems to locate and track enemy threats. Maritime patrol aircraft, ships, submarines, and unmanned vehicles will provide comprehensive situational awareness and cue intercepting units. Speed will be an ally as linked sensors, high-speed platforms, and improved kill vehicles consolidate area control.

(5) The importance of sea shield to the Nation is great. The proliferation of advanced weapons and asymmetric attack techniques places an increasing premium on the value of deterrence and OE dominance. Sea shield capabilities, deployed forward, will help dissuade aggressors before the onset of conflict. In addition, sea shield will complement sea strike efforts by freeing aviation forces previously devoted to force defense, allowing them to concentrate on strike missions and generate far greater offensive firepower from the fleet.

(6) Mission reconfigurable littoral combat ships, manned and unmanned aviation assets, and submarines with unmanned underwater vehicles will gain and maintain the operational advantage, while sea based aircraft and missiles create air dominance.

(7) Forward deployed naval forces will also protect the homeland by engaging inbound ballistic missiles in the boost or mid-course phase, when they are most vulnerable to interception. This TAMD is a key part of sea shield and is the focus of robust active concept development efforts. The Trident ballistic missile submarine force will remain on silent patrol, providing the ultimate measure of strategic deterrence.

d. Sea Strike

(1) Sea strike operations define how the 21st century Navy will exert direct, decisive, and sustained influence in joint campaigns. They will involve the dynamic application of persistent intelligence, surveillance, and reconnaissance; time-sensitive strike; ship-to-objective maneuver; IO; and covert strike to deliver devastating power and accuracy in future campaigns.

(a) Sea strike impact. Amplified, effects-based striking power, increased precision attack and IO, enhanced warfighting contribution of Marines and special forces, 24/7 offensive operations, and seamless integration with joint strike packages.

(b) Sea strike capabilities. Persistent ISR, time-sensitive strike, electronic warfare and IO, ship-to-objective maneuver, and covert strike.

(c) Future sea strike technologies. Autonomous, organic, long-dwell sensors, integrated national, theater, and force sensors, knowledge-enhancement systems, unmanned combat vehicles, hypersonic missiles, electromagnetic rail guns, and hyper-spectral imaging.

(d) Sea strike action steps. Accelerate information dominance via ForceNet, develop, acquire, and integrate systems to increase combat reach, stealth, and lethality, distribute offensive striking capability throughout the entire force, deploy sea based, long dwell, manned and unmanned sensors, develop IO as a major warfare area, synergize with U.S. Marine Corps transformation efforts, and partner with the other services to accelerate Navy transformation.

(2) Sea strike capabilities will provide the JFC with a potent mix of weapons, ranging from long-range precision strike, to covert land-attack in anti-access environments, to the swift insertion of ground forces. Information superiority will empower us to dominate timelines, foreclose adversary options, and deny enemy sanctuary. Sea strike operations will be fully integrated into joint campaigns, adding the unique independence, responsiveness, and on-scene endurance of naval forces to joint strike efforts. Combined sea based and land-based striking power will produce devastating effects against enemy strategic, operational, and tactical pressure points' resulting in rapid, decisive operations and the early termination of conflict.

e. Seabasing

(1) Operational maneuver is fundamental to military success. Looking to the future, the extended reach of networked weapons and sensors will increase the impact of naval forces in joint campaigns. This is realized by exploiting the largest maneuver area on the face of the earth: the sea.

(2) Seabasing serves as the foundation from which offensive and defensive fires are projected making sea strike and sea shield realities. As enemy access to weapons of mass destruction grows, and the availability of overseas bases declines, it is compelling both militarily and politically to reduce the vulnerability of U.S. forces through expanded use of secure, mobile, networked sea bases. Seabasing capabilities will include providing the JFC with global C2 and extending integrated logistical support to other services. Afloat positioning of these capabilities strengthens force protection and frees airlift-sealift to support missions ashore.

(a) Seabasing impact. Prepositioned warfighting capabilities for immediate employment, enhanced joint support from a fully netted, dispersed naval force, strengthened international coalition building, increased joint force security and operational agility, and minimized operational reliance on shore infrastructure.

(b) Seabasing capabilities. Enhanced afloat positioning of joint assets, offensive and defensive power projection, C2, integrated joint logistics, and accelerated deployment and employment timelines.

(c) Future seabasing technologies. Enhanced sea based joint C2, heavy equipment transfer capabilities, intratheater high-speed sealift, improved vertical delivery methods, integrated joint logistics, rotational crewing infrastructure, and international data-sharing networks.

(d) Seabasing action steps. Exploit the advantages of sea based forces wherever possible, develop technologies to enhance on-station time and minimize maintenance requirements, experiment with innovative employment concepts and platforms, and challenge every assumption that results in shore basing of Navy capabilities.

(3) Netted and dispersed sea bases will consist of numerous platforms, including nuclear-powered aircraft carriers, multi-mission destroyers, submarines with special forces, and maritime prepositioned ships, providing greatly expanded power to joint operations. Sea based platforms will also enhance coalition building efforts, sharing their information and combat effectiveness with other nations in times of crisis.

(4) Seabasing accelerates expeditionary deployment and employment timelines by prepositioning vital equipment and supplies in-theater, preparing the U.S. to take swift and decisive action during crises. Strategic sealift will be central to this effort. It remains a primary mission of the U.S. Navy and will be critical during any large conflict fought ashore. Moreover, prepositioned ships with at-sea accessible cargo will be built and will await closure of troops by way of high-speed sealift and airlift. Joint operational flexibility will be greatly enhanced by employing prepositioned shipping that does not have to enter port to offload.

(5) Seabasing describes two fundamental roles of forward deployed naval forces. They are discussed below.

(a) Projecting sea based capabilities ashore. Land forces are increasingly turning to sea based forces to improve their own agility and survivability. At the same time, naval sensing,

fires, defense (including TAMM), and command capabilities are being controlled and projected from the sea farther and farther ashore. This enables naval forces to shape the land battle directly, decisively, and jointly.

(b) Sea based support for land based forces. Applying military power from the mobile sea based force frees the ground commander from the constraints of defending and maintaining infrastructure in the face of conventional and asymmetric threats. Sea based forces provide a more secure area from which the JFC can conduct reconnaissance, surveillance, and engagement.

(6) Twenty-first century operations will require greater efficiencies through the development of joint logistical support. This will include the provisioning of joint supplies and common ammunition, and the completion of critical repairs from afloat platforms. Providing these capabilities to on scene commanders will significantly increase operational effectiveness and constitute a valuable addition to strategic basing support provided by friends and allies around the world.

(7) Beyond its operational impact, the Navy seabasing concept provides a valuable tool for prioritizing naval programs. Sea based forces enjoy advantages of security, immediate employability, and operational independence. All naval programs should foster these attributes to the greatest extent feasible. This means transforming shore based capabilities to sea based systems whenever practical, and improving the reach, persistence, and sustainability of systems that are already afloat.

D-2. FORCENet: Enabling 21st Century Warfare

a. FORCENet provides the naval C2 component for Sea Power 21 and expeditionary warfare, enhancing every aspect of naval, joint and combined operations. FORCENet will empower Sailors and Marines at all levels to execute more effective decisionmaking at an increased tempo, which will result in improved combat effectiveness and mission accomplishment.

b. As FORCENet develops, it will fundamentally change the way the Navy and Marine Corps team functions by exploiting the power of networks—from deployed forces to supporting establishment. A robustly networked naval force will improve situational awareness and mutual understanding, collaborative decisionmaking, and operational planning by exploiting expertise resident throughout the force.

c. FORCENet will yield better synchronization of actions through enhanced speed and quality of command. Although the focus of this concept is operational, FORCENet is equally applicable to all activities throughout the Department of the Navy enterprise. It aligns with evolving joint, interagency and coalition C2 and net-centric concepts and capability based guidance. This concept describes the principles, defines the capabilities, and reaffirms the necessity of co-evolving information technology with organization, process, and doctrine. As such, this concept provides the overarching guidance necessary to support development of architectures, requirements, and further experimentation to realize fully FORCENet.

Glossary

Section I Abbreviations

AAW	anti-air warfare
AB	advance base
ABCS	Army Battle Command System
AFATDS	advanced field artillery data system
AFSB	afloat forward staging base
AH	attack helicopter
AMD	air and missile defense
APOD	aerial port of debarkation
APOE	aerial port of embarkation
APS	Army prepositioned stocks
ARCIC	Army Capabilities Integration Center
ARG	amphibious readiness group
ARH	armed reconnaissance helicopter
ASF	Army strategic flotilla
AV	attack vertical
BCS3	battle command sustainment and support system
BCT	brigade combat team
BFT	blue force tracker
BLOS	beyond line of sight
C2	command and control
C4I	command, control, communications, computers, and intelligence
C4ISR	command, control, communications, computers and intelligence, surveillance, and reconnaissance
CAISI	combat service support information system interface
CAS	close air support
CBA	capability based assessment
CBR	chemical, biological, and radiological
CBRN	chemical, biological, radiological, and nuclear
CCDR	combatant commander
CCJO	Capstone Concept for Joint Operations
CCP	concept capability plan
CD&E	concept development and experimentation
CG	guided missile cruiser
CoG	centers of gravity
CH	cargo helicopter
CJCS	Chairman, Joint Chiefs of Staff
CJFC	combined joint force commander
CONOPS	concept of operations
CONUS	continental United States
COP	common operational picture
CSB	combat support brigade

CSG	carrier strike group
CVN	carrier vessel nuclear
DA	Department of the Army
DCGS-A	distributed common ground station – Army
DCP	deployable command post
DDG	guided missile destroyer
DIV	division
DLA	Defense Logistics Agency
DOD	Department of Defense
DOTMLPF	doctrine, organization, training, materiel, leadership, personnel, and facilities
ESG	expeditionary strike group
FBCB2	Force XXI Battle Command Brigade and Below
FCB	functional capabilities board
FCR	fire control radar
FCS	future combat systems
FM	field manual
FOB	forward operating base
FRS	forward repair system
FSS	fast sealift ship
FWD	forward
GCC	geographical combatant commander
GCCS-A	global command and control system – Army
GCCS-J	global command and control system – Joint
GCSS-A	global combat support system – Army
GIG	global information grid
GTN	global transportation network
HBCT	heavy brigade combat team
HCCC	harbormaster command and control center
HQ	headquarters
IAMD	integrated air and missile defense
IBCT	infantry brigade combat team
INLS	improved Navy lighterage system
IO	information operations
ISB	intermediate staging base
ISR	intelligence, surveillance, and reconnaissance
ISU	individual storage unit
ITV	in-transit visibility
J-8	Force Structure, Resources, and Assessment Directorate, joint staff (DOD)
JBC-P	joint battle command-platform
JCC(X)	joint command and control ship
JCIDS	Joint Capabilities Integration and Development System
JFACC	joint force air component commander
JFC	joint force commander
JFCOM	United States Joint Forces Command
JFEO	joint forcible entry operations
JFSOCC	Joint Force Special Operations Component Commander

JHL	joint heavy lift
JHSS	joint high speed sealift
JHSV	joint high speed vessel
JIC	joint integrating concept
JIM	joint, interagency, intergovernmental, and multinational
JLENS	joint land attack cruise missile defense elevated netted sensor system
JLOTS	joint logistics over the shore
JMAC	joint maritime assault connector
JMIC	joint modular intermodal container
JOA	joint operations area
JOC	joint operating concept
JOE	joint operating environment
JP	joint publication
JPADS	joint precision air delivery system
JSF	joint strike fighter
JTF	joint task force
JTRS	joint tactical radio system
JUSS	joint undersea superiority
JWARN	joint warning and reporting network
LCAC	landing craft air cushion
LCM	landing craft mechanized
LCS	littoral combat ship
LCU	landing craft utility
LDSS	logistic decision support system
LHA	landing helicopter amphibious
LHD	landing helicopter dock
LMCS	light-weight modular causeway system
LMSR	large medium-speed roll-on/roll-off
LPD	amphibious transport dock
LOS	line of sight
LOTS	logistics over the shore
LS	launch system
LSD	landing ship dock
LSV	logistics support vessel
MAGTF	Marine air-ground task force
MCG	mobile command group
MCM	mine countermeasures
MCO	major combat operations
MEU	Marine expeditionary unit
MLP	mobile landing platform
MPF(F)	maritime prepositioned force (future)
MPS	maritime prepositioned ship
MTS	movement tracking system
NECC	Net-Enabled Command Capability
NLOS	non line of sight
nm	nautical mile

NoMaDD	node management and deployable depot
NSFS	naval surface fire support
OCONUS	outside continental United States
OE	operational environment
OH	observation helicopter
OIF	Operation Iraqi Freedom
OPDS	off-shore petroleum discharge system
OSG	operational strike group
OTC	officer in tactical command
OTH	over the horizon
OV	operational view
pam	pamphlet
POM	program objective memorandum
RFID	radio frequency identification
RORO	roll-on/roll-off
RRDF	RORO discharge facility
RSO&I	reception, staging, onward movement, and integration
SA	situational awareness
SATCOM	satellite communications
SBCT	Stryker brigade combat team
SINCGARS	single channel ground and airborne radio system
SOF	special operations force
SPOD	sea port of debarkation
SPOE	sea port of embarkation
SS	sea state
SSG	surface strike group
SSA	supply support activity
SSN	nuclear attack submarine
SSTR	stabilization, security, transition and reconstruction
SU	situational understanding
SWG	senior working group
T-AE	ammunition ship
T-AFS	combat stores ship
T-AH	hospital ship
T-AKE	auxiliary cargo and ammunitions ship
TAMD	theater air and missile defense
T-AO	replenishment oiler
T-AOE	fast combat support ship
TASMC	theater aviation sustainment maintenance capability
TASMG	theater aviation sustainment maintenance group
TAV	total asset visibility
TC-AIMS	transportation coordinator–automated information movement system
Tml Bn	terminal battalion
TRADOC	Training and Doctrine Command
TSV	theater support vessel
TTP	tactics, techniques, and procedures

UAS	unmanned aerial systems
UH	utility helicopter
UNREP	underway replenishment
U.S.	United States
USTRANSCOM	United States Transportation Command
VTOL	vertical take-off and landing
WIN-T	warfighter information network - tactical
WMD	weapons of mass destruction effect
WME	weapons of mass effect

Section II

Explanation of terms

afloat forward staging base

A potential future capability that will enable the Army to assemble, vertically employ over the horizon, sustain, reconstitute and reemploy rapid response forces from a joint sea base.

advance base

Base located in or near an operational area whose primary mission is to support military operations. (JP 1-02). Advanced bases can include main operating bases forward operating sites, and cooperative security locations. (National Defense Strategy).

air assault

Movement of friendly assault forces (combat, combat support, and combat service support) by rotary wing aircraft to engage and destroy enemy forces or to seize and hold key terrain. (JP 1-02).

airborne

Troops especially trained to effect, following transport by air, an assault debarkation, either by parachuting or touchdown. (JP 1-02).

amphibious force

Amphibious task force and a landing force together with other forces that are trained, organized, and equipped for amphibious operations. (JP 1-02).

amphibious task force

A Navy task organization formed to conduct amphibious operations. The amphibious task force, together with the landing force and other forces constitutes the amphibious force. (JP 1-02).

austere environment

An operational environment with the following characteristics: little or no host nation support; limited pre-existing infrastructure and facilities; immature ports of debarkation; inadequate transportation and communications networks; unsophisticated medical, supply, and other services. It is a particularly difficult environment for conducting operations of expeditionary joint forces. (Seabasing JIC).

austere port

An austere port includes characteristics of degraded and minor ports and has one or more of the following limitations: loading and discharge capability; cargo handling; pier, quay, or berth facilities (length and water depth); and access. (Seabasing JIC).

battle command

Battle command applies the leadership element of combat power. It is principally an art that employs skills developed by professional study, training, and judgment. It is the exercise of leadership through visualization, description, and direction. The science of battle command relates to the conduct of operations within a battlefield operating system.

operational environment awareness

The knowledge and understanding of the operational area's environment, factors, and conditions, to include the status of friendly and adversary forces, neutrals and noncombatants, weather and terrain, that enables timely, relevant, comprehensive, and accurate assessments, in order to successfully apply combat power, protect the force, and/or complete the mission. (JP 1-02).

capability based assessment

The JCIDS analysis process that includes the functional area, needs and solution analyses and post independent analysis. The results of the CBA are used to develop a joint or initial capabilities document. (CJCSI 3170.01E).

collaborative information environment

A specified information environment that enables collaborative processes at will between a select group of individuals or organizations. The collaborative information environment is a subset of the emerging global information environment. The information backbone that provides warfighters the ability to enhance organizational effectiveness, and reduce hierarchical, serial planning timelines through information and idea sharing and parallel planning. (Joint C2 Joint Functional Concept).

connector

A system, usually surface or vertical, that provides a means of movement for joint forces, equipment, materiel, supplies and parts, between two or more distributed units of the sea base (in this case units of the sea base may include fixed or unimproved points ashore, including pier, beach, landing zone, and others). An inherent characteristic is an interoperable connection (such as, interface) between the units that it connects. (Seabasing JIC).

counterinsurgency

Military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency. (JP 1-02).

deployment momentum

A characteristic of a military campaign that seeks to close gaps between arrival of deployed forces, and eliminate operational pauses caused by the need to secure lodgments/points of debarkation for follow-on forces. When these gaps are closed, deployment momentum is

achieved, improving the capability of the force to expand initial operations and build combat power sufficiently to assume the offensive throughout the JOA. (Seabasing JIC).

distributed operations

The conduct of simultaneous non-contiguous operations, distributed across a JOA in a synchronized manner. (Joint Operations Concept).

expeditionary force

An armed force organized to accomplish a specific objective in a foreign country. (JP 1-02).

fathom

A fathom is a unit of measurement used on the seas to measure depth. A fathom is equal to 6 feet or 1.8 meters.

flexible deterrent option

A planning construct intended to facilitate early decisions by laying out a wide range of interrelated response paths that begin with deterrent-oriented options carefully tailored to send the right signal. The flexible deterrent option is the means by which the various deterrent options available to a commander (such as economic, diplomatic, political, and military measures) are implemented into the planning process. (JP 1-02).

focused logistics

Building sufficient capacity into the deployment and sustainment pipeline, exercising sufficient control over the pipeline from end-to-end, and providing a high degree of certainty to the supported JFC that forces, equipment, sustainment, and support will arrive where needed and on time. (Focused Logistics Joint Functional Concept).

force application

The integrated use of maneuver and engagement to create the effects necessary to achieve assigned mission objectives. (Force Application Joint Functional Concept).

forward operating base

A base usually located in friendly territory or afloat that is established to extend command and control or communications or to provide support for training and tactical operations. Facilities may be established for temporary or longer duration operations and may include an airfield or an unimproved airstrip, an anchorage, or a pier. (JP 1-02, with modifications).

global strike

Responsive joint operations that strike enemy high value, high payoff targets, as an integral part of joint force operations conducted to gain and maintain operational environment access, achieve other desired effects and set conditions for follow-on decisive operations to achieve strategic and operational objectives. (Global Strike JIC).

humanitarian assistance

Operations conducted to relieve or reduce the results of natural or manmade disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a

serious threat to life or that can result in great damage to or loss of property. Assistance provided is designed to supplement or complement the efforts of the host nation civil authorities or agencies. (JP 1-02, with modifications).

intermediate staging base

A temporary location used to stage forces prior to inserting the forces into the host nation. (JP 1-02).

infrastructure

The physical plant, facilities, systems, services, manpower, and skill sets inherent to the sea base, necessary to receive, assemble, store, integrate, forward, support, and sustain a designated quantity of the joint force. The joint force includes personnel, their equipment, organic lift (air and surface), organic strike, force protection, intelligence, information exchange, command and control capabilities, and required logistics (supply, sustainment, and maintenance). In general, infrastructure includes facilities, equipment, and personnel to support the functional requirements of the sea base: movement of selected forces and equipment (including by air and sea), berthing, equipment storage, C2, logistics (supply, sustainment, and maintenance), rehabilitation, medical care, etc. The infrastructure is generally a fixed set of systems and capabilities, but can be modularized to adapt to various mission packages. (Seabasing JIC)

interoperability

The capability of the sea base infrastructure and joint force to provide and accept assets and services from other units, systems, and forces, and to operate these exchanged assets and services together in an effective manner. Specifically, interoperability is the sea base capability to seamlessly operate with joint and a multi-national force, for example, the sea base infrastructure is designed to accommodate different forces, equipment, and Services, and still operate effectively. (JP 1-02).

joint deployment and distribution enterprise

The collective set of common and fully integrated joint processes, standards, systems, platforms, C2, people, organizations, shared-knowledge, and communication networks established to globally distribute joint personnel, equipment, materiel, supplies, repair parts and other joint requirements. (Joint Logistics (Distribution) JIC).

joint forcible entry operations

Seizing and holding a military lodgment in the face of armed opposition. (JP 3-18 Joint Doctrine for Forcible Entry Operations).

joint interdependence

The services' purposeful reliance on each other's capabilities to maximize complementary and reinforcing effects while minimizing relative vulnerabilities in order to achieve the mission requirements of the JFC. (CCJO).

joint integrating concept

A description of how the JFC 10-20 years in the future will integrate capabilities to generate effects and achieve an objective. A JIC includes an illustrative CONOPS for a specific scenario and a set of distinguishing principles applicable to a range of scenarios. (CJCSI 3170.01E).

joint operations area

Area of land, sea, and airspace, defined by a GCC or subordinate unified commander, in which a JFC conducts military operations to accomplish a specific mission. (JP 1-02).

joint operating concept

An operational-level description of how the JFC 10-20 years in the future will accomplish a strategic objective through the conduct of operations within a military campaign. The concept identifies broad principles and essential capabilities and provides operational context for JFC and JIC development and experimentation. (CJCSI 3170.01E).

joint total asset visibility

Capability designed to consolidate source data from a variety of joint and Service automated information systems to provide joint force commanders with visibility over assets in-storage, in process, and in-transit. (Ref: JP 1-02)

landing force

A Marine Corps or Army task organization formed to conduct amphibious operations. The landing force, together with the amphibious task force and other forces, constitutes the amphibious force. (Ref: JP 1-02)

lethal

Capable of causing death. Of, relating to, or causing death.

lighterage

Craft used to transport equipment, cargo, and personnel between ships, from ship-to-shore or for intratheater transport. Lighterage includes landing craft, amphibious, or modular causeway systems. (Transportation Engineering Agency Pam 700-4).

lines of operation

Lines that define the directional orientation of the force in time and space in relationship to the enemy. They connect the force with its base of operations and its objectives. (JP 1-02).

major combat operations

Large-scale operations conducted against a nation state(s) that possesses significant regional military capability, with global reach in selected capabilities, and the will to employ that capability in opposition to or in a manner threatening to U.S. security. (MCO JOC).

nautical mile

A unit of length that corresponds approximately to one minute of latitude along any meridian. It is used by groups, such as navigators in the shipping and aviation industries and in international law and treaties, especially regarding the territorial limits. A nm equals 1.151 U.S. miles, 1.852 kilometers, 1,852 meters, or 6,076 feet.

net-centric

A framework for full human and technical connectivity and inter-operability that allows all DOD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. (Net-Centric Environment Joint Functional Concept).

nonlethal

Neutralizing or incapacitating a target without causing permanent injury, death, or gross physical destruction.

nonlethal weapons

Weapons, devices and munitions that are explicitly designed and primarily employed to immediately incapacitate targeted personnel or materiel, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment. Nonlethal weapons are intended to have reversible effects on personnel or materiel.

operational net assessment

A continuously updated operational support tool that provides a JTF commander visibility of effects-to-task linkages based on a system-of-systems analysis of a potential adversary's political, military, economic, social, infrastructure, and information war-making capabilities. Informs decisionmakers from strategic to tactical levels regarding the complementary effects and supporting missions and tasks that can be considered when applying the full range of diplomatic, information, military, and economic actions to achieve specific effects on an adversary's will and capability in support of national objectives. (JFCOM).

prime mover

The units of the sea base that provide the primary means of movement to/from and in the JOA, for joint forces, equipment, supplies and parts. Prime movers also provide infrastructure to support joint forces and their equipment for a designated period of time. (Seabasing JIC).

reconstitute

Those actions that the JFC plans and implements to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources. Reconstitution operations include retrograde and regeneration. Derived to support development of seabasing lines of operation. (Joint).

reduced operational status (ROS)

Applies to the Military Sealift Command ships withdrawn from full operational status because of decreased operational requirements. A ship in reduced operational status is crewed in accordance with shipboard maintenance and possible future operational requirements, with crew size predetermined contractually. The condition of readiness in terms of calendar days required to attain full operational status is designated by the numeral following the acronym ROS, for example, ROS-5. (JP 1-02)

sea base

A maneuverable, scalable aggregation of distributed, networked platforms that enable the global power projection of offensive and defensive forces from the sea, and includes the ability to assemble, equip, project, support, and sustain those forces without reliance on land bases within the JOA. (Seabasing JIC).

Sea Power 21

Naval concept which defines a Navy with three fundamental concepts: Sea strike, sea shield, and seabasing, enabled by FORCEnet.

sea shield

Layered global defensive power based on control of the seas, forward presence, and networked intelligence. It will use these strengths to assure access to contested littorals and enhance homeland defense. The ability of naval forces to project defensive power deep overland, protecting territory of allied countries and joint forces ashore. The foundation of these integrated operations will be information superiority, total force networking, and an agile and flexible sea based force.

sea state

A scale that categorizes the force of progressively higher seas by wave height. In accordance with the World Meteorological Organization and Joint Meteorology and Oceanography Conceptual Data Model, sea state is the code that denotes the roughness of the surface of the sea in terms of average wave height. (Joint Metrology and Oceanography Conceptual Data Model).

sea strike

A potent mix of weapons, ranging from long-range precision strike, to covert land-attack in anti-access environments, to the swift insertion of ground forces. Combined sea based and land based striking power will produce devastating effects against enemy strategic, operational, and tactical pressure points' resulting in rapid, decisive operations and the early termination of conflict.

seabasing

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.

seize the initiative

Assuming offensive actions to confuse, demoralize, disrupt, and defeat the enemy. Using knowledge superiority to achieve military advantage over the enemy. (JP-1).

Section II

Special abbreviations and terms

This section contains no entries.