What is the Right Strategic Sealift Mix to Deploy, Equip, Supply, and Sustain Contingency and Expeditionary Forces?

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ABSTRACT

TITLE: Determining what is the Right Strategic Sealift Mix to Deploy, Equip, Supply, and Sustain Contingency and Expeditionary Forces?

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PURPOSE: To discuss the post Cold War era National Military Strategy, apply lessons learned from Operations Desert Shield and Desert Storm, and provide a recommendation for the right strategic sealift mix.

BRIEF SUMMARY: The Cold War, as the salient feature for United States security, is over. Russian forces are being withdrawn from Central and Eastern Europe, the Warsaw Pact has dissolved, and new democracies are developing worldwide. This paper discusses the history of sealift from World War II to the present and analyzes the link between U.S. military strategy and how strategic sealift supports this strategy. The paper also addresses the impact that DOD's reduced budgets and less forward land based forces will have on forward presence and why amphibious forces are critical to the military's ability to provide a credible crisis response. Examination of the lessons learned from Operations Desert Shield and Desert Storm are applied to the separate Services' strategic mobility initiatives and the results of DOD's Mobility Requirements Study. The assessment concludes with recommendations of what amphibious and strategic sealift assets DOD should procure.
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EXECUTIVE SUMMARY

As a seagoing nation, the United States relies on sea lines of communication. The economic well-being and security of the United States is dependent on its ability to move goods, men, and equipment over long distances. The only efficient way to fulfill the United States economic and strategic requirements is by sealift. Today, the United States has insufficient military and civil maritime resources to meet a defense deployment to support our national security strategy.

History. World War II can justifiably be viewed as the age of sea power for the United States. The overthrow of America's adversaries depended, in large part, on a capacity to project and sustain power onto hostile shores. Termination of World War II hostilities brought with it forced demobilization of the military with a subsequent reduction of all sealift assets. Today, the United States is short the right mix of strategic sealift assets to adequately support the current national security strategy.

National Military Strategy. During the Cold War, the United States national security strategy was one of Deterrence and Defense, Forward Deployment of Forces, and Use of Coalitions. To enhance strategic mobility assets, selected equipment and supplies were pre-positioned in areas deemed vital by the United States. Forward pre-positioning of selected military assets provides rapid deployment and offers a highly credible alternative in measured response and deterrence. The current national military strategy as

**Forward Presence/Crisis Response.** Any strategic mobility planner looking at forward land-based forces clearly recognizes the difference between reinforcing established forces and bases ashore, and the initial forced introduction of United States forces into a hostile environment.

Currently, the United States is reducing the number of forward land-based forces. This reduction is aggravating an already strained strategic sealift situation. To compensate for this reduction in forward land-based forces and to provide a better regional response capability, Naval and Maritime Pre-positioning Forces offer a partial solution already available. In the international environment, many countries are unwilling to have U.S. forces positioned on their sovereign territory, but are willing to have U.S. naval forces afloat nearby. Naval Forces, augmented with follow-on Maritime Pre-positioning Forces, send a strong political signal and are specifically designed to project military force when and where needed.

**Persian Gulf Lessons Learned.** The successes of Operations Desert Shield and Desert Storm are largely the result of the most intensive build up of military forces in U.S. history. Built during the 1980s, the Maritime Pre-positioning Force, the aviation
logistics support ships, and the hospital ship's contributions were a resounding success. These ships, with accompanying equipment and supplies, met with their designed closure expectations.

Although the United States realized many successes, strategic mobility planners must temper their euphoric reactions with reality. Without augmentation from international maritime assets, the United States deployment of forces would have been extended. Additionally, there are few areas in the world that can receive military deployments with the extensive infrastructure in place that the United States realized in Saudi Arabia.

Sealift Required to Support the National Military Strategy. Amphibious Forces. The combat power required for forcible entry, together with sustainment beyond the first few days, is only available with amphibious forces. Unit for unit, amphibious forces carry more sustainability and organic firepower than any comparable U.S. airborne force. Currently, the United States Navy has 60 amphibious ships in commission. Of these amphibious ships, 19 will reach block obsolescence by fiscal year 1998 and 45 will be retired by fiscal year 2007. Six replacement amphibious ships are funded for delivery by fiscal year 1997. Without any additional replacement ships, the amphibious fleet will be reduced to 21 ships by fiscal year 2007.

Strategic Sealift. On 1 January 1991, the United States merchant fleet (private) consisted of 408 oceangoing ships of 1,000 gross
tons and over. The United States flag fleet currently contains 134 militarily usefull dry cargo ships, but is projected to decline to 71 ships by 1999.

**Strategic Mobility Initiatives.** As a result of the Fiscal Year 1991 National Defense Authorization Act, the simmering war between the services over roles and missions and competition over how best to spend dwindling defense dollars has been re-ignited. Although this act directed the Secretary of Defense to determine the armed forces' mobility requirenents, several services had already initiated their own studies after Operation Desert Shield. These studies resulted in the Army Strategic Mobility Plan, the Navy Strategic Sealift Plan, and a modified Maritime Pre-positioning Force Plan by the Marine Corps.

**Conclusion.** The Department of the Navy does not contain the right mix of amphibious vessels to meet operational requirements today. Without immediate corrective action, the future of amphibious operations is in doubt. Of particular concern, by 1997, amphibious big decks will be reduced from 14 to 10 ships. The designated future replacement amphibious ship is the LX, a ship that will replace four classes of ships in the U. S. Navy inventory today. Based on operational requirements, it is recommended that the future amphibious fleet contain 12 big decks, 12 LSDs, and 24 LX style ships.

For pre-positioning afloat ships, I recommend adoption of a
plan similar to the proposed Marine Corps plan. I would modify the proposed Marine Corps plan by adding an additional vessel to Maritime Pre-positioned Squadron-2, home-ported at Diego Garcia, with sufficient sustainment assets to support the Army's recommended lead Brigade (C+4).

Review of the Integrated Mobility Plan in the Mobility Requirements Study disclosed the requirements for surge and sustainment sealift to be supportive of the National Military Strategy. I recommend surge sealift carry Amphibious Forces Assault Follow-On Echelon assets and be capable of off-loading in-stream.
WHY SEALIFT IS IMPORTANT

As a seagoing nation, the United States relies on sea lines of communication. The economic well-being and security of the United States is dependent on its ability to quickly move men, equipment, and supplies over long distances. The only efficient way to fulfill the United States economic and strategic requirements is by sealift. To guarantee sealift assets are available, the National Security Sealift policy of 1989 was passed. The objective of this policy is "to ensure that sufficient military and civil maritime resources will be available to meet defense deployment, and essential economic requirements in support of our national security strategy." The United States must decide what sealift assets are critical to support the "Base Force" in the national strategy.

History. World War II can justifiably be viewed as the period of sea power for the United States. The overthrow of America's adversaries depended, in large part, on an ability to project and sustain power onto hostile shores, a capability necessitated by the absence of friendly ground forces on shore. To achieve this capability, the U.S. Navy had 610 amphibious ships in commission in 1945.¹ These ships, loaded with troops and associated equipment and supplies, provided a force entry capability never before seen. To sustain friendly forces overseas, the operating United States flag merchant marine consisted of 2,114 active ships (of

over 1,000 gross registered tons) totaling 23,651,000 deadweight tons and 1,582 inactive ships totaling 15,231,000 deadweight tons in June 1947."²

Termination of World War II hostilities brought with it forced demobilization of the military with a subsequent reduction of all sealift assets. The United States Navy went from 610 to 91 amphibious ships in only four years. Currently, the U.S. Navy has 60 amphibious ships in commission. Amphibious ships carry only the Assault Echelon (AE) of amphibious forces. Sustainment shipping carries Assault Follow-on Forces (AFOE) and the remaining sustainment supplies required by amphibious forces.

By 1 January 1991, the U.S. merchant fleet (private) consisted of 408 oceangoing ships of 1,000 gross tons and over. The U.S. flag fleet currently numbers 134 militarily useful dry cargo ships, but the number is projected to decline to 71 ships by 1999.³ Currently, the United States is short the right mix of strategic sealift assets to adequately support the National Security Strategy.

Categories of Strategic Sealift. Strategic sealift is sub-divided into two categories: surge and sustainment shipping.

Surge shipping is critical to the rapid buildup of combat power during the initial stages of a deployment. Ships used in surge shipping must be capable of handling


³Joint Chiefs of Staff, Mobility Requirements Study (U), Washington, DC: 23 January 1992: IV-4. SECRET.
outsized military vehicles, tanks, helicopters, and unit equipment. These forward-deployed forces are then resupplied and maintained by sustainment shipping. The supplies required to meet daily consumption needs and build reserve stocks are conducive to being containerized; therefore, this second category of shipping specializes in transporting containerized cargo."

NATIONAL MILITARY STRATEGY

In the post Cold War era, U.S. strategists must develop the proper military - political - economic strategy necessary to support the national security strategy. If not, the United States must devalue the nature and scope of its security interests. Today, United States military strategists must develop flexible military capabilities to pursue limited goals under diverse political circumstances in a variety of unpredictable contingencies.

National Interests. What are our national interests? The January 1992 edition of The National Military Strategy of the United States lists them as:

NATIONAL INTEREST

- SURVIVAL OF U.S.
- HEALTHY AND GROWING U.S. ECONOMY
- HEALTHY RELATIONS WITH ALLIES
- SECURE WORLD

* The survival of the United States as a free and independent nation, with its fundamental values intact and its institutions and people secure.
* A healthy and growing U.S. economy to ensure opportunity for individual prosperity and resources for national endeavors at home and abroad.

* Healthy, cooperative, and politically vigorous relations with allies and friendly nations.

* A stable and secure world, where political and economic freedom, human rights, and democratic institutions flourish.5

These broad, time-tested interests have changed very little over the years and I do not envision them changing in the foreseeable future. Although we have won the Cold War, we can still lose the peace. The national military strategy must continue to support our national interests, but with dwindling defense funds.

**Cold War Strategy.** Prior to 1990, national security strategy was one of Deterrence and Defense, Forward Deployment of Forces, and Use of Coalitions. It can be argued that the prioritization of United States regional defense policies was:

1. United States and contiguous areas;
2. Western Europe;
3. Pacific Basin;
4. Indian Ocean and Southwest Asia; and
5. South America/Latin America/Africa.

This ordering drove U.S. defense expenditures and dictated where we deployed our forces.

To enhance strategic mobility assets, selected equipment and supplies were pre-positioned in areas deemed vital by the United States.5

States. Forward pre-positioning of selected military assets provides rapid deployment and offers a highly credible alternative in measured response and deterrence.

Post Cold War Strategy. Today, our national security strategy consists of "Strategic Deterrence and Defense, Forward Presence, Crisis Response, and Reconstitution." In support of this strategy, the United States needs to continue to solidify our alliances around the globe, but with a more shared, equitable distribution of resources among alliance members. The regional security approach will need to continue, but with a better balance of United States assets among regions. The end of the Cold War has changed the Europe first concept.

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Land Pre-positioning. Clearly, the strategic mobility planning and the means of implementation that may be appropriate in Europe are not suitable for the Persian Gulf. Any strategic mobility planner looking at forward land based forces clearly recognizes the difference between reinforcing established forces and bases ashore, and the initial introduction of United States forces into a hostile environment elsewhere. When hostilities are imminent, the demand is to rapidly strengthen forces already ashore. This is best done by pre-positioning equipment and supplies ashore now, then airlifting personnel to join with their associated materiel. This strategy worked well for many years. Although it is envisioned that current land pre-positioning programs will remain in place, the reduction of forward land-based forces is ongoing.

Our forces deployed throughout the world show our commitment, lend credibility to our alliances, enhance regional stability, and provide a crisis-response capability while promoting U.S. influence and access.... Although the numbers of U.S. forces stationed overseas will be reduced, the credibility of our capability and intent to respond to crisis will continue to depend on judicious forward presence.

This reduction of forward land-based forces will aggravate an already strained strategic sealift situation. Moreover, we must maintain our capability to project military force when and where

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needed and sustain that force once committed.

Naval Forces. Naval forces signify the strength of long standing United States commitments to our allies, while not requiring United States posturing of forces ashore that could later become a liability to a host nation. American naval forces provide powerful yet unobtrusive presence; strategic deterrence; control of the seas; extended and continuous on-scene crisis response; project precise power from the sea; and provide sealift if larger scale war fighting scenarios emerge. In the international environment, many countries are unwilling to have United States forces positioned on their territory, but are willing to have United States naval forces nearby. An additional advantage is the capability to rapidly evacuate United States nationals from deteriorating situations. In fact, naval forces have been routinely used to evacuate United States nationals over the past few years as exemplified in Cyprus, Phnom Penh, Saigon, Lebanon, Grenada, Liberia, and most recently, Somalia.

Maritime Pre-positioning. Maritime Pre-positioning provides an additional forward presence capability. Strategically positioned,

FORWARD PRESENCE

- LAND PRE-POSITIONING
- NAVAL FORCES
- MARITIME PRE-POSITIONING

Maritime Pre-positioning adds a significant dimension for crisis response for the worldwide, rapid deployment of personnel and equipment for sustained operations ashore.

Unlike naval forces, two limitations restrict the employment options of Maritime Pre-positioning Forces. Maritime Pre-positioning requires a secure airfield in close proximity to a secure off-load site, and it does not have the forcible entry capability inherent to naval forces. The introduction of these ships into a country requires either an invitation from the host country or a forward deployed force to secure off-load sites.

Although these limiting factors exist, the effective employment of maritime pre-positioning assets still improves our crisis response time. The flexibility these assets provide strategic mobility planners far outweighs the requirements for a secure air head or off-load site. When considered in consonance with a CINC's ability to rapidly reinforce a forward deployed force, maritime pre-positioning capitalizes on the responsiveness and sustainability offered by forward deployed sealift.
The successes of Operations Desert Shield and Desert Storm are the result of the most intensive military deployment of personnel, equipment, and sustainment supplies in U.S. history. Over one-half a million personnel and 10,000,000 tons of materiel were introduced into Southwest Asia (SWA) over a seven month period.

**Successes.** Employment of the Maritime Pre-positioning Force, the aviation logistics support ships, and the hospital ships, designed and built during the 1980s, was a resounding success. Within seven days of notification, Maritime Pre-positioned Squadron - 2 (MPS-2), home-ported in Diego Garcia, arrived in Saudi Arabia and commenced off-load operations. Eighteen days from notification, MPS-3, home-ported in Guam, also commenced off-load operations in Saudi Arabia. Joined with personnel flown into theater, these forces constituted the first employment of heavy mechanized forces capable of sustaining themselves for 30 days. Ultimately, the military would utilize the entire MPF. The aviation logistics support ships (T-AVB) were mobile platforms that provided aviation logistics support. The T-AVBs were crucial to the sustainment of Marine aircraft operating in support of the air campaign. The full capabilities of the hospital ships were never utilized, but their location in theater made them readily available, if needed.

**Reality.** Although operators realized many successes, strategic mobility planners must temper euphoric reactions to Operations
Desert Shield and Desert Storm with reality. Without augmentation from international maritime assets, the United States' deployment of forces would have been extended. Additionally, there are very few areas in the world that can receive military deployments with the extensive infrastructure in place that we found in Saudi Arabia. The modern, made-to-fit ports, cranes, materiel handling equipment, and transportation assets and network expedited the arrival, off-load, and build up of forces. Further, the availability of fuel precluded the United States from having to transport large quantities of bulk products. Most importantly, the enemy allowed the United States seven months to build up military forces and then select the day to commence hostilities.

Impact on Sealift Requirements. What critical lessons learned must mobility force planners take away from Operations Desert Shield and Desert Storm?

LESSONS LEARNED

- INSUFFICIENT SURGE SEALIFT
- INSUFFICIENT AMPHIBIOUS SHIPS
- AFOE REQUIREMENTS FOR SEALIFT
1. The United States has insufficient surge sealift and is rapidly becoming insufficient in sustainment sealift.\textsuperscript{10}

2. There is insufficient amphibious shipping to support a fully capable amphibious Marine Expeditious Brigade Assault Echelon from each coast plus two forward deployed Marine Expeditionary Units.\textsuperscript{11} The lack of amphibious shipping has become even more acute as JCS has now imposed an additional requirement for a third Marine Expeditionary Unit to be forward deployed year round.

3. Strategic sealift assigned to carry the AFOE assets for amphibious forces needs to have an organic in-stream off-load capability that is suitable for conducting a Logistics-Over-The-Shore operation. Whether sustainment ships contain self-contained cranes, or an auxiliary crane ship or modified heavy lift sea barge carriers are utilized, the ships assigned to carry the AFOE must be capable of expeditiously off-loading their cargo in-stream. The requirement for an in-stream off-load capability becomes even more acute when modern ports and cranes are not available to assist in the off-load of ships.

\textsuperscript{10}Mark L. Hayes, "Sealift: The Achilles' Heel": 72.

Amphibious Forces. The combat power required for forcible entry is only available with amphibious forces. Unit for unit, amphibious forces carry more sustainability and organic firepower than virtually any United States airborne force. This capability is further enhanced by combining the combat power available with other naval forces. Naval forces have trained together, they provide a unique flexible crisis response, and provide a forcible entry capability when required. It is best for United States forces to arrive in a region with tactical integrity, and "the only safe way to introduce the first U.S. combat forces is amphibiously."\(^{12}\)

Amphibious "Fingerprint". United States Navy and Marine Corps planners have historically held divergent views over the size and composition required for the amphibious fleet. The most controversial factor preventing a consensus is the size of the "fingerprint" for Marine forces.

Aggregate amphibious lift capacity is computer based on so-called "fingerprints" of a notional Marine Expeditionary Brigade. These fingerprints correspond to the five main lift categories: numbers of troops, square feet of vehicle stowage area, cubic feet of cargo stowage space, numbers of vertical takeoff and landing aircraft deck spots, and numbers of air-cushion landing craft (LCAC) deck spots.\(^{13}\)

The size of the "fingerprint" was resolved in late 1982 when

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\(^{12}\)Christopher Jehn, "Amphibious Warfare": 12.

\(^{13}\)Mobility Requirements Study (U): V=1. SECRET.
the Director, Programs Analysis and Evaluation, Office of the Secretary of Defense directed the Department of the Navy to "provide lift for the assault echelons of a Marine Amphibious Force and a Marine Amphibious Brigade by 1994." The AFOE required for amphibious forces would follow the assault echelon in strategic sealift assets and not be included in United States Navy amphibious ships.

The Office of the Secretary of Defense directive resulted in the Department of the Navy (DON) Long Term Amphibious Lift Requirement and Optimum Ship Mix Study (DONLIFT Study) of 1983. In 1990, DON replaced the 1983 DONLIFT Study with the Integrated Amphibious Operations and USMC Air Support Requirements Study. This latest study, established the amphibious lift requirement at three Marine Expeditionary Brigades (MEB). Fiscally constrained, the lift goal was affixed at two and one-half MEBs. This lift goal, less forward operating forces, will provide for a limited two ocean contingency response capability.

Amphibious Ships. Currently, the United States Navy has 60

"Department of the Navy, "Long Term Amphibious Lift Requirement and Optimum Shipmix Study" (U), Washington, DC: GPO, 25 May 1983: 2. CONFIDENTIAL."
amphibious ships in commission. Of these amphibious ships, 19 will reach block obsolescence by fiscal year 1998 and 45 will retire by fiscal year 2007. Six replacement amphibious ships are funded for delivery by fiscal year 1997. Accordingly, without any additional replacement ships, the amphibious fleet will degrade to 21 ships by fiscal year 2007.

Of particular concern, by 1997, amphibious big decks will be reduced from 14 to 10 ships. These big decks provide the critical element for forward deployed Amphibious Ready Groups/Marine Expeditionary Units.

Big decks provide:

- primary air capability for ship-to-shore movement,
- C3I for embarked Navy and Marine Commanders,
- majority of troop capacity,
- advanced medical facilities,
- Super High Frequency Comms (JOPES, WWCCS, DODIIS),
- convertible to sea control missions.

The Chairman, Joint Chiefs of Staff Post Desert Storm Naval Force Presence Policy (CJCS Washington, DC msg 222050Z Aug 91) directed three Amphibious Ready Groups to be forward deployed year round.15 Analyses by JCS, Chief of Naval Operations, and the Center for Naval Analysis establishes the requirement for Amphibious Ready Groups at 12. When addressing the forward presence requirement of three Amphibious Ready Groups, twelve big decks are necessary to support time on station, transit times, training and exercises, and

maintenance schedules. In addition to the aforementioned requirements, twelve big decks also provide a more realistic personnel and operational tempo. By fiscal year 1997, block obsolescence will reduce big deck amphibious ships from 14 to 10.

Shortfalls in the availability of amphibious ships currently exist within the 60 ship amphibious fleet. As a result of operational tempo, and the additional requirement to have a third Amphibious Ready Group (ARG) forward deployed year-round, Navy and Marine planners are augmenting amphibious vessels with other ships today. An ARG recently deployed with three amphibious vessels and a maritime pre-positioned ship. The pre-positioned ship was incorporated in the deployment to offset a shortfall in available amphibious lift for equipment and supplies necessary for the Marine Expeditionary Unit (MEU). The additional personnel required to provide a fully mission capable MEU will be flown in and joined with their associated equipment and supplies when required. Although this solution enabled the United States to forward deploy an ARG, operators should not confuse this organization with a fully-mission capable group. A fully-mission capable ARG deploys on self sustaining amphibious vessels that have tactical integrity.

A more recent example is the embarkation of a 600 member Special Purpose Marine Air Ground Task Force on an aircraft carrier. Although this is an innovative approach to providing forward deployed presence, this force does not contain the same flexibility and capabilities found in a MEU. Additionally, this limits the force to vertical insertion only.
Strategic Sealift. Today, U.S. strategic sealift consists of ships in the Ready Reserve Fleet (RRF), Military Sealift Command (MSC) controlled ships, U.S. Flag, and effective U.S. control (EUSC) fleets. The Joint Chiefs of Staff Mobility Requirements Study describes strategic sealift as:

* RRF: The RRF is composed of government-owned, inactive commercial ships with military utility. These ships are maintained by the U.S. Maritime Administration (MARAD) in 5, 10, or 20 day states of readiness to support deployment of military forces. Activation of these ships is controlled by the Navy.

* MSC-controlled fleet: This fleet consists of government-chartered dry cargo and tanker ships that provide point-to-point cargo service in areas not normally served by American companies. It includes two aviation logistic support ships designed to provide the necessary equipment and support for maintenance of a Marine Aircraft Group. The MSC also exercises control over the following assets:

  - Fast Sealift Ships (FSSs): These eight ships were purchased in the early 1980s and converted to a roll-on/roll-off (RO/RO) configuration for the rapid movement of Army equipment from CONUS. These ships are maintained on a 4 day reduced operating status (ROS).

  - Maritime Pre-positioning Ships (MPS): This program consists of 13 modified commercial vessels under long-term charter, operating in three squadrons (located at Diego Garcia, the western Atlantic, and Guam-Tinian). Each squadron carries unit equipment (UE) and sustainment for a Marine
Expeditionary Brigade (MEB).

- Afloat Pre-positioning Ships (APS): This force consists of eight dry cargo ships carrying Military Service equipment and sustainment for contingencies in Southwest Asia (SWA) as well as several tankers.

* U.S. Flag Merchant Marine Fleet: These oceangoing cargo ships are owned by U.S. businesses and operated under U.S. registry. They could be made available to support military operations via voluntary charter or through requisitioning after a Presidential declaration of national emergency.

* Effective U.S.-controlled fleet: This fleet includes U.S.-owned, but foreign registered, ships under the flags of Panama, Honduras, Liberia, Republic of Marshall Islands, and the Bahamas. These ships are available after a Presidential declaration or proclamation of emergency; however, their availability is contingent, on a country-by-country basis, upon the nature of the crisis and the issues involved.

To augment these national assets, the United States has treaty commitments with NATO countries and the Republic of Korea for mobility assets if a contingency occurs in these respective areas. An additional source of mobility is foreign ships. These ships are available for charter on the open market.

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*Mobility Requirements Study (U): IV 1-2. Secret.*
STRATEGIC MOBILITY INITIATIVES

For 45 years, the demands of the domestic environment were subordinated to national security issues while the U.S. concentrated on the Cold War. Today, domestic problems are increasingly coming in direct competition with our national security goals for the same resources. This competition has lead to a shift in U.S. budget priorities, resulting in dwindling defense dollars. With a new post Cold War National Military Strategy, the simmering war between the services over roles and missions and competition over how best to spend defense dollars is re-ignited. Although the FY 1991 National Defense Authorization Act directed the Secretary of Defense to determine the armed forces mobility requirements, several services initiated their own studies. These studies resulted in the Army Strategic Mobility Plan, the Navy Strategic Sealift Plan, and a modified Maritime Pre-positioning Force Plan by the Marine Corps.

Army Strategic Mobility Plan. After a review of the environment and the perceived threat, the Army stated that it must be capable of employing a five Division Corps in 75 days. This breaks down to a lead Brigade by C+4, a Division by C+12, two heavy Divisions (sealift from CONUS) by C+30, and the full Corps by C+75.
Additionally, a heavy combat Brigade with 120 M1A1 tanks, with accompanying sustainment supplies for a Corps, must be pre-positioned afloat and available by C+15. To support this concept, the Army states it will require eleven Large, Medium Speed, RO/ROs (LMSR) vessels, eight Fast Sealift Ships, and 23 RO/ROs (plus sustainment sealift). The Army anticipates that the initial startup cost would be three billion dollars. Substantial additional cost would be incurred as a maintenance facility and associated port is required to support this program.

Navy Strategic Sealift Plan. The Navy Strategic Sealift Plan recommends the purchase of LMSRs, both by conversion and new construction, for both pre-positioning and surge sealift. Increasing the number of RO/ROs in the Ready Reserve Fleet and producing militarily useful RO/ROs for commercial use is also proposed.

Marine Corps Plan. The Marine Corps recommends expanding the existing thirteen ship Maritime Pre-positioning Force by three ships. Each additional ship (one assigned to each Maritime Pre-positioned Squadron) would carry additional tanks and accompanying supplies. This could raise the tanks in each Maritime Pre-positioned Squadron from 30 to 58 and to 174 for the Maritime Pre-positioning Force. The Marine Corps estimates the cost would be one billion dollars, roughly two billion less than the Army proposal. No additional cost would be incurred for a maintenance
facility or port. The Marine Corps facility at Blount Island, Jacksonville, Florida, currently is utilized for the Maritime Pre-positioning Force and is capable of expanding the maintenance cycle for three additional ships.

The basic argument between the Marine Corps and Army evolves around the issue of missions and roles. The Army's plan, based on the JCS requirement to pre-position a heavy Brigade afloat by FY-97, ignores the current Maritime Pre-positioning Force. The Marine Corps' role as an enabling force supports the Army's battle mission to continue operations ashore. Strategic mobility operators can introduce these follow-on heavy battle forces on either surge sealift or assets pre-positioned afloat. The discussion and subsequent decision by the Secretary of Defense should focus on where DOD can best support the National Military Strategy in the most cost effective manner.
CONCLUSION

The Department of the Navy does not contain the right mix of amphibious vessels to meet operational requirements today. By fiscal year 2007, without immediate corrective action, the United States ability to conduct amphibious operations is in doubt.

The issue can best be put in focus by considering the lift requirement for MEUs. Current deployments consist of 5, 4, and 3 ship combinations....For an LHA (big deck), 4 or 3 ships are used depending on the mix. Operational flexibility considerations lead to desire for as many ships in the ARG as possible. Fleet operating cost considerations push planners to use as few ships as possible. Given the lift capacities of ships now being built, the issue translates to either a 4 ship or a 3 ship ARG.17

Accepting the proper ARG mix to be three amphibious ships, this equates to 36 ships when maintaining a twelve big deck ARG/MEU force. Thirty-six amphibious ships would be required to support the current flexible forward operating policy for ARGs. These ships, in a non fiscally constrained fleet, are in addition to the Secretary of the Navy's goal to maintain a 2.5 MEB amphibious lift. Fleet readiness criteria requires that ships be able to load a MEB assault echelon and sail in 168 hours.18

Currently, the designated future replacement amphibious ship is the LX. With a LX type and size ship in the fleet, planners envision an embarked MEB on a 17 ship mix. This would equate to 34

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18Department of the Navy, "Integrated Amphibious Operations and USMC Air" (U): 69. SECRET.
ships, for a total of 70 amphibious ships in the active inventory. This is an unrealistic figure in today's constrained budget.

The flexibility, strategic mobility, and rapid response necessary to reinforce forward deployed forces is available by pre-positioning selected equipment and supplies afloat. When required, the necessary forces can be flown into available areas to join with the pre-positioned afloat assets. Operations Desert Shield and Desert Storm validated the pre-positioning afloat concept.

Review of the Integrated Mobility Plan in the Mobility Requirements Study disclosed the mobility requirements for surge and sustainment sealift to be supportive of the new National Military Strategy. To expand (by FY 1999) the Ready Reserve Force from the current 96 ships to 142 ships....and to increase the readiness of the fleet.\(^1\)

**Recommendations.** In an era of dwindling defense dollars, the following are actions DOD should pursue to ensure the proper mix of amphibious and strategic sealift is available to support the National Military Strategy:

1. Build and maintain an amphibious fleet as follows:

<table>
<thead>
<tr>
<th>Increase From Current Plan</th>
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<tbody>
<tr>
<td>12 Big Decks (LHA/LHD)</td>
</tr>
<tr>
<td>12 LSD's</td>
</tr>
<tr>
<td>24 LX Style Ships</td>
</tr>
</tbody>
</table>

\(^1\)Mobility Requirements Study(U): ES-6. SECRET.
The 1990 DON Integrated Amphibious Study addresses the specific capabilities and size of each type amphibious ship. The recommended mix above, would support the current requirement to forward deploy three ARGs simultaneously, and provide sufficient lift for two MEBs. The total lift goal can be accomplished by compositing two forward deployed MEUs with inbound MEBs once they are in theater.

2. Adopt the Marine Corps pre-positioning afloat plan, with modification. By adopting the basic Marine Corps plan, DOD could add one additional ship to each existing Maritime Pre-positioned Squadron (MPS), plus an additional ship at Diego Garcia, at one third the cost of the Army's plan, but with the same results. The additional ship at Diego Garcia would contain sufficient sustainment assets to support the Army's recommended lead Brigade (C+4). By using the existing facilities at Jacksonville, Florida, DOD can achieve additional savings.

3. All maritime pre-positioning ships must be capable of conducting self contained, in-stream and pier side off-load operations. There is no guarantee United States forces will have the excellent ports and through-put facilities available again that were found in Saudi Arabia.

4. Augment surge sealift with crane ships. The same argument made for maritime pre-positioned ships to be capable of off-loading assets in-stream applies here also.

5. Surge sealift, capable of conducting self contained, in-
stream and pier-side off-load operations, should carry AFOE assets. Assets in the AFOE are normally needed in the amphibious objective area no latter than five days after commencement of an amphibious assault.

6. Lease Ready Reserve Force vessels to carry commercial loads. Leasing these vessels for commercial use can offset their costs. On a rotating basis, this would keep the ships in better operating condition and help maintain an available force of merchant seaman.
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