12 January 1998

This paper was downloaded from the Internet.

Distribution Statement A: Approved for public release; distribution is unlimited.

POC: Dept of Ocean Engineering
MISSION NEED STATEMENT

FOR

STRATEGIC SEALIFT

1. DEFENSE PLANNING GUIDANCE ELEMENT. This mission need statement responds to Defense Planning Guidance Elements as given in the publications "...From the Sea" and "...Forward From the Sea" and the Department of Defense Sealift Study. In this guidance, defense leadership charts the course for the twenty-first century as one where our nation's expeditionary forces are shaped for joint operations capable of operating forward from the sea and responding to national needs. "Sealift will provide the maritime bridge to ensure heavy joint forces can arrive and fight effectively in major crisis." Sealift is a critical element in the comprehensive and responsive logistics support system required for force sustainment. Sealift deficiencies noted in "...From the Sea" and "...Forward From the Sea" must be resolved.

2. MISSION AND THREAT ANALYSIS

a. Mission

(1) Reductions in overseas facilities diminish the capacity to logistically support deployed naval combatant forces.

(2) Current Ready Reserve Force (RRF) assets are inadequate. During the Gulf War, over one half the ships in the RRF either could not be made ready in time to contribute or were not considered to be useful due to type/configuration.

(3) New deployment strategies require rapid Sealift support for force sustainment in widely dispersed regional conflicts, ployment strategies

(a) Transit Logistics Support. Support joint forces ashore to include the ability to supply fuel, foodstuffs, assorted repair parts, and ammunition from the continental United States or forward bases to areas of conflict.

(b) On-Station Logistics Support of Theater Forces. Logistic support of theater forces covers a wide spectrum. In the early stages of a conflict, the supply system for military forces may not be fully established. Logistics support may include the need to provide supplies to shore command and control outposts, early stage land-based air units, reconnaissance units, and port operations. Adequate port facilities may not be available for offload requiring equipment to be delivered "in stream" and over the shore.

(c) Peacetime Logistics Support. Sealift capabilities can be sustained for very short periods by commissioned Navy ships. However, strategic Sealift must be ready to respond whenever needed. Peacetime strategy must minimize cost without jeopardizing capabilities or overall reliability.

b. Threat Analysis

(1) The ability of the U.S. to utilize military forces to achieve policy objectives is threatened without Strategic Sealift capability. Power projection is constrained without the ability to reinforce existing assets. With the demise of forward deployed bases (eg, Phillipines) a new class of Sealift ships capable
of rapid deployment and fast transit times to regional hot spots such as the Persian Gulf and Korean Peninsula becomes crucial.

(2) Newly designed Sealift ships must be able to deploy with minimum escorting. Without traditional escorts (such as surface combatants) to provide air / sea dominance, the new platforms must incorporate significant survivability features including reduced radar cross section, sound silencing improvements and reduced susceptibility to structural damage due to shock loading.

3. NON-MATERIAL ALTERNATIVES.

a. The following in-service systems are capable of missions similar to Sealift. Reassignment of these assets to dedicated lift may provide a viable alternative:


2. Airlift cargo aircraft.

b. Continue and enforce the Sealift Readiness Program relying on commercial shipping firms to meet Sealift needs in a national need.

c. Pre-stage logistics support items ashore near regions of possible conflicts.

d. Increase reliance on NATO and other alliances to provide logistics support in local conflicts.

e. Politically avoid regional conflicts through negotiation and diplomacy. An underlying assumption however, is that this approach is always taken first and that a military alternative is not taken until other avenues are exhausted. Therefore a military option is still required.

4. POTENTIAL MATERIAL ALTERNATIVES.

a. Conduct Service Life Extension (SLEP) to the current RRF assets.

b. Subsidize the required National Defense Features (NDF) on a commercially viable ship designed for rapid conversion to military use. The procurement and life cycle costs must be competitive with commercial shipping operations for this to be a legitimate alternative.

c. Convert USN ships (i.e., AOE-6 Class) to Sealift capable platforms and maintain in a layup status without a dedicated crew until needed.

d. Purchase and convert commercial ships and maintain in a layup status without a dedicated crew until needed.

e. Modernize existing RRF break bulk vessels by conversion to RO/RO and container ships.

5. CONSTRAINTS.

a. Infrastructure Support Requirements:

(1) The cost requirements for developing a Strategic Sealift system must be acknowledged. Involvement and cooperation of commercial industry must begin in the earliest stages of development to ensure Sealift capability can be developed at a minimum cost. Use Commercial Off The Shelf (COTS) equipment and technology to the maximum extent possible to reduce procurement costs.

(2) The addition of a new asset should not require an increase in Navy manning. Any response to this mission need statement must be made within the constraint of current and projected DOD manning limits.
(3) In light of current budgetary restrictions, the most cost effective approach should be taken. Cooperative efforts with commercial shipping companies should be pursued to the fullest extent possible to minimize the life-cycle costs of Sealift platforms. Cooperative efforts must ensure mission capable platforms are available when needed.

b. Operating Environment:

(1) On Station logistics support may be required in any conflict at any time. Sealift platforms should be capable of delivering logistical support to any area where an amphibious landing could occur and onload/offload without assistance from any equipment on shore.

(2) Defensive capabilities will be provided by other platforms in the area. Armaments or defensive capabilities will not be cost effective as an integral system on Sealift platforms.

c. Required Effectiveness:

(1) The platform must be able to transport supplies in Sea State 8 and be able to conduct lightering operations in Sea State 3. It must have the ability to transit and offload in any environmental conditions that may be encountered near a battlefield (NBC, EMF).

(2) Transport large amounts of material to any littoral region of the world within 21 days, to include:
a. Develop capability for rapid load/offload in locations where no jetty facilities exist.