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Review of DoD's Strategic Mobility Programs
Commercial Sealift Support

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Lawrence Schwartz
Alfred H. Beyer
Frederick M. McNamee
Click D. Smith

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Logistics Management Institute
6400 Goldsboro Road
Bethesda, Maryland 20817-5886

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U.S.- and foreign-flag ocean carriers offered the required vessels and liner service to deliver approximately 2 million short tons of dry cargo for Operation Desert Shield/Storm. In future emergencies, however, those vessels and services may not be available to DoD in sufficient quantities because of economic and political considerations. Consequently, DoD needs to enhance several features of its Sealift Readiness Program (SRP) – a standby mechanism for making U.S.-flag shipping assets available to DoD during emergencies.

We recommend that the SRP provide the capability for using container ships and liner service in both surge and sustainment; employ unit equipment, ammunition, and sustainment requirement service categories to improve carrier and DoD planning; and provide a hierarchy of authority for activating or deactivating commercial sealift capabilities. We further recommend that DoD relax direct price competition to permit greater mobilization planning between MSC and the carriers. In place of direct competitive bidding, rates could be constructed from the carriers' commercial practices and costs as well as peacetime business allocated by using a mobilization point system.

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Strategic mobility; commercial sealift; seaports; Sealift Readiness Program; mobilization planning; sealift procurement; Operation Desert Shield/Storm.

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Executive Summary

REVIEW OF DoD'S STRATEGIC MOBILITY PROGRAMS: COMMERCIAL SEALIFT SUPPORT

The Department of Defense (DoD) made extensive use of commercial sealift and domestic ocean ports to meet the deployment requirements of Operation Desert Shield/Storm. Ocean carriers, under contract to the Military Sealift Command (MSC) for liner services and vessel charters, delivered approximately 2 million short tons of dry cargo to the Middle East, more than 50 percent of all sealift. Nearly 1.3 million short tons of that dry cargo were outloaded, under auspices of the Military Traffic Management Command, through 17 CONUS ports (10 commercial and 7 military) located on the Atlantic, Gulf, and Pacific Coasts. Commercial sealift and ocean ports were clearly major contributors to Operation Desert Shield/Storm.

In satisfying the sealift requirements of the Persian Gulf War, MSC relied extensively on commercial liner services (through a Special Middle East Shipping Agreement developed in August 1990) and vessel charters, primarily foreign-flag roll-on/roll-off ships (through the commercial market). MSC did not use the Sealift Readiness Program (SRP) – a standby mechanism for making U.S.-flag shipping assets available during emergencies – principally because that program did not adequately provide the necessary services and vessels.

Although commercial ships contributed greatly to meeting the strategic sealift requirements of Operation Desert Shield/Storm, their support during future emergencies is not assured. U.S.-flag ocean carriers may not offer the needed liner service and charter support, and DoD may not have access to most of the world's foreign-flag vessels. Consequently, we believe that DoD needs to revitalize its SRP to meet the lift requirements of future emergencies. Specifically, we recommend that DoD enhance the program with the following features:

- Capability for expanded use of container ships and liner service during both surge and sustainment
- Employment of requirement service categories for carrier and DoD planning

- Priority use of volunteer sealift services during emergencies
- Flexible activations and deactivations of commercial sealift capabilities
- Hierarchy of activation authority.

We also recommend that DoD test a new method for procuring sealift services on a major military trade route to determine if it improves mobilization planning and coordination as well as peacetime support. The method that MSC uses to procure commercial sealift services, direct-competitive bidding, precludes effective military/industry contingency planning, a key ingredient for a sound sealift augmentation program. We propose DoD test the replacement of direct price competition with rates constructed from the carriers' commercial costs. That action would permit MSC and the carriers to freely conduct more extensive mobilization planning. We doubt that use of constructed rates would result in higher rates, primarily because U.S.-flag carriers' commercial costs are routinely squeezed by rigorous international competition. This is another issue that should be resolved by the test.

Finally, we recommend that the Assistant Secretary of Defense (Production and Logistics) prescribe the establishment of an updated and expanded SRP in a DoD directive, and direct MSC, through the U.S. Transportation Command, to implement such a program.

Even though DoD effectively met its strategic sealift requirements during Operation Desert Shield/Storm without activation of the SRP, that program may be vital to meeting the lift requirements of future emergencies. Our proposed adjustments to the structure of the SRP and the method for procuring sealift should provide the needed foundation for improvement.

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REVIEW OF DoD'S STRATEGIC MOBILITY PROGRAMS: COMMERCIAL SEALIFT SUPPORT

This report assesses the Department of Defense's (DoD's) policies and practices for augmenting organic strategic sealift assets with commercial capabilities. It also briefly discusses DoD's use of commercial seaports during military deployments, reviews the use of commercial sealift and Continental United States (CONUS) seaports during the Persian Gulf War, and examines various management issues associated with the use of those assets.

OVERVIEW

In this section, we provide an overview of DoD planning for the use of commercial sealift and seaports during crises and emergencies. We begin with a review of sealift policy.

Policy

The overarching policy document governing the security aspects of sealift (and, indirectly, seaports) is the National Security Sealift Policy of 1989. Prepared and issued by the National Security Council and approved by the President, the National Security Sealift Policy has as its purpose "to ensure that the U.S. maintains the capability to meet sealift requirements in the event of crisis or war." The document further prescribes, among others, the following policy guidelines:

> First, the US-owned commercial ocean carrier industry, to the extent it is capable, will be relied upon to provide sealift in peace, crisis, and war. This capability will be augmented during crisis and war by reserve fleets comprised of ships with national defense features that are not available in sufficient numbers or types in the active US-owned commercial industry. . . .
>
> Second, we must be prepared to respond unilaterally to security threats in geographical areas not covered by alliance commitments. Sufficient US-owned sealift resources must be available to meet requirements for such unilateral response.
>
> Third, in addition to the US flag fleet we will continue to rely on U.S.-owned and allied shipping resources to meet strategic commitments to our established alliances. . . .

The DoD supplements these guidelines with several broad statements issued under the Department of Defense Transportation Policy of 1990. That document contains three policies that affect sealift:

> . . . a proper mix be achieved between the capabilities of the various modes and methods of transportation, both military and commercial, that matches defense requirements. . . .
>
> . . . military transportation resources shall be used during peacetime as efficiently as possible. . . .
>
> . . . DoD will make maximum use of commercial intermodal and container transport capabilities in peacetime and wartime to the extent that they meet DoD requirements. . . .

The Chief of Naval Operations (CNO), through the Emergency Action Plan for Augmentation of Strategic Sealift, dated 12 October 1989, prescribes a series of steps for extending DoD's organic sealift capabilities, progressing from peacetime operations to full mobilization. Three of those steps are key to the use of commercial sealift.

> Step 2. Additional charter: During an unexpected surge in requirements, shipper services alert MTMC [Military Traffic Management Command] and MSC [Military Sealift Command] to unprogrammed requirements in support of OSD/JCS [Office of the Secretary of Defense/Joint Chiefs of Staff] -directed missions. . . .
>
> > A. COMSC [Commander MSC] charters more ships or capacity through normal RFP [requests for proposal] procedures, U.S. flag having absolute preference over foreign flag ships.
>
> Step 5. Sealift Readiness Program (SRP): Surge requirements, either in general, for specific ship types, or for timeliness of response, exceed RRF [Ready Reserve Force] capability. . . .
>
> > A. COMSC and MARAD [Maritime Administration], in cooperation, determine that activation of the Sealift Readiness Program (SRP) is necessary. The SRP requires approval by the Secretaries of Defense and Transportation. COMSC requests authority to activate the SRP.
>
> Step 6. Surge requirements in excess of RRF, VTA [Voluntary Tanker Agreement], and SRP will require a Presidential proclamation that the security of the national defense makes it advisable, or a Declaration of National Emergency by the President, invoking section 902 of the Merchant Marine Act, 1936.
>
> > A. This is applicable to:
> > Requisition of U.S.-flag ships;
> > Activation of National Defense Reserve Fleet (NDRF) ships;
> > Requisition of Effective US Control (EUSC) ships . . .

The preceding policies clearly call for DoD to augment its organic sealift capabilities with commercial assets during wartime as required.

In the following section, we describe the main features of DoD's commercial augmentation programs, their intent, and their use during Operation Desert Shield/ Storm.

Sealift

During national emergencies, the DoD first relies on the MSC-controlled fleet, consisting of long-term charters and Government-owned ships, for sealift capability. It then augments that capability by contracting for commercial liner service; chartering commercial vessels; using RRF assets; calling up ships under the SRP; requisitioning of U.S.-flag vessels; using EUSC ships; and requesting services of ships under NATO (North Atlantic Treaty Organization) and allied control. In this report, we examine MSC's use of commercial liner services, charter vessels, and SRP ships. Use of the controlled fleet, RRF, requisitioning of U.S.-flag vessels, EUSC, NATO, and allied ships is beyond the scope of this report.[1]

Peacetime Support

As the single manager operating agency for ocean transportation, MSC procures all sealift to meet DoD's requirements in peacetime, relying upon competitive bidding by U.S.-flag ocean carriers.

In contracting for sealift under its Worldwide Container Agreement, MSC seeks carrier's bids for intermodal and ocean transportation service to move various types of dry containerized and breakbulk cargo over specific regional trade routes, such as between the East Coast of the United States and Europe. MSC currently employs more than 10,000 commodity-route rates that carriers rebid every 6 months. Before April 1990, MSC awarded no more than 75 percent of the tonnage on certain trade routes to the lowest bidder and the balance to the other bidders. The resultant rates were quite volatile, falling by an average of 14 percent in FY88 and rising by 50 percent in FY89.[2]

---

[1]See report of Joint Department of Defense/Department of Transportation Ready Reserve Force Working Group, *The Ready Reserve Force: Enhancing a National Asset*, October 1991.

[2]Average worldwide rates as reported in *OSD Industrial Fund Overview*, FY89/FY90 and FY90/FY91.

To promote competition and stabilize rates, MSC used a variable-award formula in its April 1990 contract that guaranteed the carriers a percentage of the cargo depending upon the number of bidders. If, for example, four carriers bid on a given trade route, MSC awarded 45 percent of the tonnage to the lowest bidder, 25 percent to the second-lowest bidder, 20 percent to the third, and 10 percent to the highest. However, MSC found that the variable-award formula neither encouraged competition nor stabilized rates, so it reinstituted the fixed 75-percent award. Moreover, MSC has incorporated explicit quality standards into its RFPs to prevent marginal carriers from submitting unrealistic bids and has taken under consideration extending the contract cycle to 1 year and contracting for definite quantity tonnages.[3]

Wartime Support

The actions that MSC follows in obtaining sealift resources to meet national emergency requirements are shown in Figure 1, which is based upon a figure in the CNO's Emergency Action Plan for Augmentation of Strategic Sealift. (Although the Action Plan presents the actions as sequential, it authorizes the adoption of any step if DoD requires the associated sealift assets.) Under wartime or national emergency situations, MSC first looks to its controlled fleet, then it turns to the commercial capabilities available through liner-service contracts and time-charter contracts. If additional assets are required, MSC, in cooperation with MARAD, activates the RRF, followed by a request to call up the SRP. (Since the SRP is DoD's primary commercial sealift augmentation program, we describe its structure and call-up procedures in some detail below.) If still more resources are required, then MSC would propose requisitioning U.S.-flag vessels, activating the NDRF, requisitioning EUSC ships, and requesting NATO and allied shipping support.

In concert with this set of sealift actions, DoD, for the past several years, has been investing in flat-racks (platforms installed in container ship holds for accommodating a variety of military cargo) and sea-sheds (topless, oversized structures that are used to adapt commercial container ships to carry military vehicles and outsized breakbulk cargo). As of September 1991, DoD had 2,031 flat-racks in its inventory, with another 117 on order; 946 sea-sheds on hand, 112 more

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[3]See LMI Report PL910R1, *Transportation Industrial Fund Policy: Improving Efficiency*, Alfred H. Beyer and Lawrence Schwartz, October 1989, for a discussion of the need for these actions.

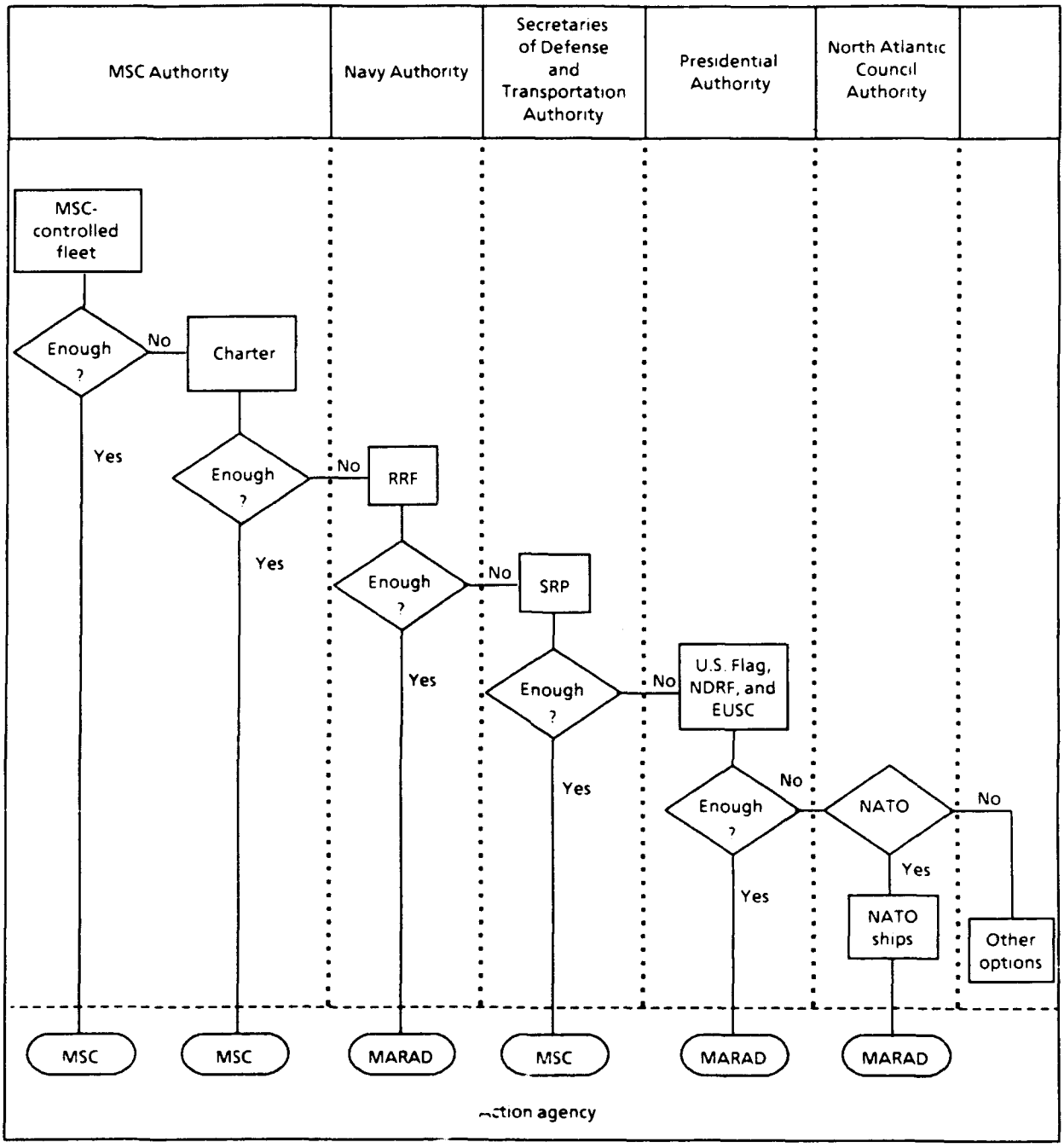

FIG. 1. SEQUENCE OF SEALIFT ACTIONS

on order; and 359 special sea-sheds for use above a ship's hull.[4] Most of DoD's flat-racks and sea-sheds are stored at three sites: Military Ocean Terminal (MOT),

[4]Technically, the special sea-sheds are placed on the ballast and fuel tanks, which lie immediately above the ship's hull.

Bayonne, New Jersey; Naval Weapons Station (NWS), Charleston, South Carolina; and Construction Battalion Center, Port Hueneme, California. The total value of this equipment exceeds $240 million.

The need for some type of sealift augmentation during less-than-full national emergency was recognized in 1967 by then Secretary of Defense McNamara. In response to Secretary McNamara's concern, the Committee of American Steamship Lines proposed a program that "... would become the mechanism for providing commercially owned and operated emergency sealift resources to the DoD when needed according to prearranged procedures...." In November 1967, DoD concurred with that proposal and established the Commercial Sealift Augmentation Program.

Beginning with its July 1969 contract solicitation for ocean services, MSC required that all ocean carriers, to be eligible for an award, had to commit ships to the Commercial Sealift Augmentation Program. (The requirement did not specify a particular number or percentage of the carriers' ships, however.) Two years later, and now retitled as the Sealift Readiness Program, MSC required ocean carriers "... to commit at least 50 percent of their American flag fleet as a condition of eligibility to receive an award...." In October 1978, the Maritime Appropriations Act directed that all vessels receiving either a Federal construction or operating subsidy must be enrolled in the SRP (whether or not they receive DoD peacetime business). These two conditions for participation in the SRP – carriers that move DoD cargo during peacetime commit 50 percent (modified from "at least" 50 percent) of their vessels and all U.S.-flag vessels that receive either a Federal construction or operating subsidy – still are in effect today.[5]

MSC incorporates the specific provisions of the SRP directly into its liner contracts for ocean transportation services. Those provisions include

- Order of priority for committing vessels is first roll-on/roll-off (RO/RO) ships, then barge ships, breakbulk ships, self-sustaining container ships, and finally nonself-sustaining container ships
- Carriers commit the services of entire ships under standard time-charter agreements
- Carriers committing RO/RO ships are to provide ramps, if available

[5]The background and description of the SRP are based upon material provided by MSC in April 1991.

- Carriers committing container ships also must provide containers (three times the number that can be carried on each container ship) and chassis (two-thirds the number of containers committed).

The call up of ships under the SRP is initiated by COMSC (who determines that additional sealift is required) and MARAD (which assesses the impact of the call up on commercial trade). The time-charter rates paid to carriers are fixed-price rates that are negotiated upon call up of the ships, based on a formula specified in the contract.

Table 1 shows the composition of the SRP by ship type. Container ships clearly dominate the SRP, comprising more than 55 percent. Most of the container ships are nonself-sustaining (i.e., they cannot be offloaded without shoreside or shipside cranes), which have the lowest priority of any dry-cargo ships committed to the SRP.

TABLE 1

COMPOSITION OF SRP

Type of ship	Number of ships[a]
Breakbulk	8
RO/RO	10
Container	74
Other	7
Total	99

Source: MSC.

Note: SRP data as of 5 April 1991. The number of RO/RO and container ships shown include ships with partial capabilities; the "Other" category includes only militarily useful ships.

[a] Although 33 tankers are committed to the SRP, the Voluntary Tanker Agreement, not the SRP, governs their actions during emergencies.

CONUS Seaports[6]

The U.S. commercial port capability is managed by independent port authorities operating under either state or local-agency control. Each of the

[6]We focus our attention on the capabilities of CONUS ports to meet emergency requirements; the capabilities of overseas ports are beyond the scope of this report.

approximately 50 port authorities in CONUS designates a port or executive director to oversee development, expansion, and operation of the port. Most directors are political appointees, although many have had training or experience in logistics, transportation, port operations, or related disciplines.

Before the integration of inland and overocean distribution networks (i.e., intermodalism), the nation's commercial ports had a virtual monopoly on the import and export business of an entire region. Intermodalism, however, eliminated the ports' regional dominance by reducing the dramatic differences in rates between inland (rail and truck) and water transport. As a result, commercial ports now compete extensively for business.

Commercial ports provide the operating link between domestic transportation systems and strategic sealift. The readiness of those ports to satisfy that linkage is a function of timely, effective cooperation among various DoD and Department of Transportation (DOT) agencies that plan, exercise, and execute the movement of military equipment and supplies through U.S. ports.

Following publication of a 1983 General Accounting Office (GAO) report that concluded port throughput suffered from gaps in planning, unclear division of responsibility, and inadequate interagency coordination and cooperation, DoD, DOT, and the Federal Emergency Management Agency (FEMA) established an ad hoc committee to act as coordinator of port functions.[7] That committee, from which FEMA subsequently withdrew, developed a concept for coordinating port functions and documented them in a Memorandum of Understanding (MOU) on Port Readiness, dated 7 January 1985. Now known as the National Port Readiness Steering Group, the committee is comprised of representatives from the U.S. Army Corps of Engineers, MTMC, MSC, U.S. Coast Guard, Naval Control of Shipping Organization, MARAD, and U.S. Maritime Defense Zone Command. The current version of the MOU has as its purpose "to ensure military and commercial port readiness to support deployment of military personnel and cargo in the event of mobilization or national defense contingency. . . ."

The Steering Group directs the activities of a National Port Readiness Working Group comprised of staff-level representatives. The Working Group, in turn,

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[7]GAO Report GAO/NSIAD-83-18, *Observations Concerning Plans and Programs to Assure the Continuity of Vital Wartime Movements Through United States Ports*, 30 August 1983.

develops the guidance for local Port Readiness Committees (PRCs) and oversees their activities. The PRCs, which vary in size and level of activity, have considerable latitude in meeting the objectives of the MOU on Port Readiness. The Steering Group, Working Group, and PRCs are known collectively as the National Port Readiness Network.

ROLE DURING OPERATION DESERT SHIELD/STORM

Sealift

Liner Service and Charter Vessels

The employment of liner-service contracts and charter vessels to meet strategic sealift requirements is predominantly an extension of MSC's peacetime practices. Liner-service contracts establish container and shipping agreements over specific trade routes. Under charter arrangements, MSC procures entire vessels to augment the sealift capability available through routine trade-route service.

The MSC container and shipping agreements in effect during early August 1990 did not include any rates for dry-cargo services to the Middle East. Initially, MSC moved a few containers under existing commercial tariffs, then it awarded preliminary contractual agreements or letter contracts that allowed some movements to begin even before all rates and terms were defined. Seeking a more permanent relationship with the carriers, MSC issued an RFP on 10 August 1990 for a Special Middle East Shipping Agreement (SMESA). It subsequently modified the RFP to incorporate expanded requirements and awarded the contract on 23 August.[8]

Between 25 August 1990 and 17 November 1990, MSC moved an average of 650 40-foot container equivalent units weekly to the Middle East under provisions of the SMESA. That average almost tripled between 18 November 1990 and 2 March 1991, as Figure 2 shows.

Within 6 days of the President's decision to respond militarily to Iraq's invasion of Kuwait, MSC had arranged for the first charter of a U.S.-flag vessel; its first foreign-flag vessel was under charter 1 day later. Daily lift-status reports show that, as of 13 September 1990, MSC had chartered 8 U.S.-flag and 35 foreign-flag vessels: 16 RO/ROs, 19 breakbulks, and 8 others. By 12 February 1991, MSC had 132 ships

[8]Based on discussions with MSC in October 1990.

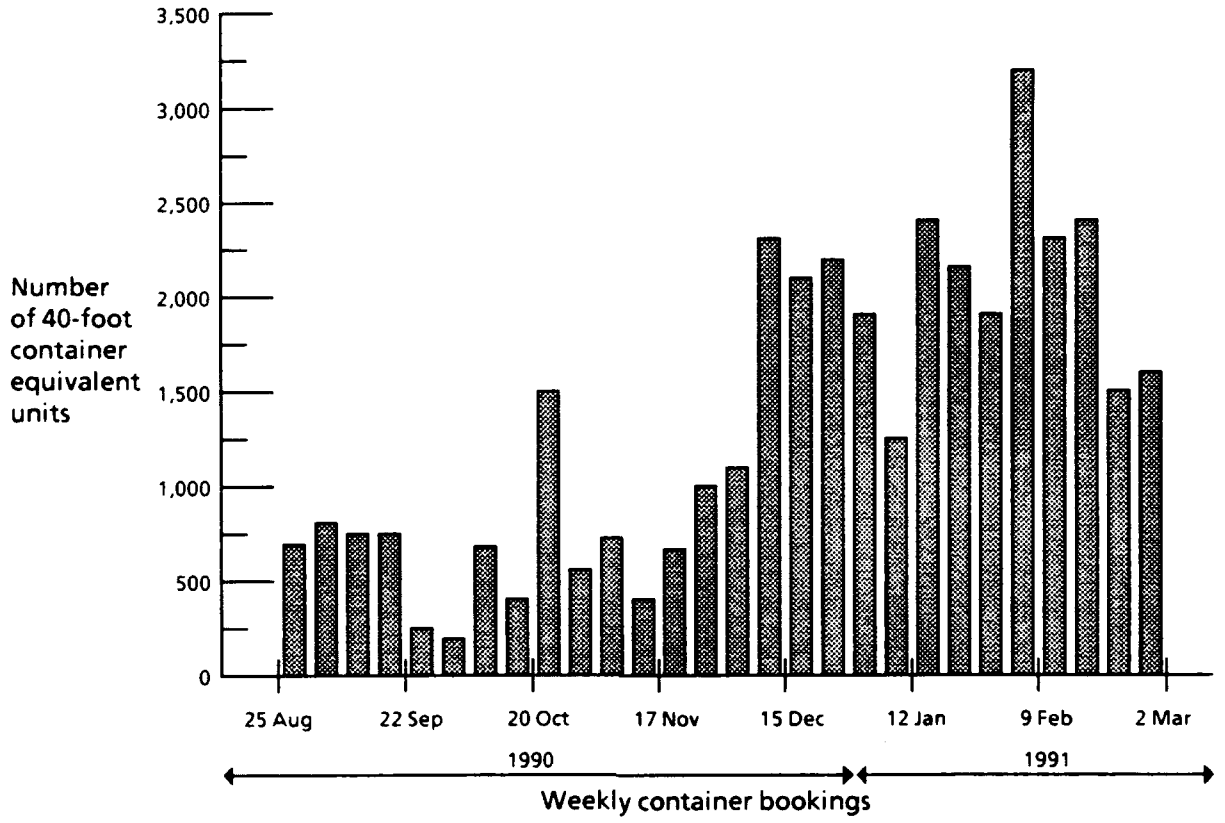

FIG. 2. CONTAINER MOVEMENTS: SMESA

(49 of which were U.S. flag) under charter: 33 RO/RO, 25 breakbulk, and 74 tanker, lighter-aboard-ship (LASH), and miscellaneous vessels. Figures 3 and 4 show the cumulative growth in the number of RO/RO, breakbulk, and other vessels (i.e., tanker, LASH, and miscellaneous ships) chartered during that 5-month period, by U.S. and foreign flag, respectively.

Because most unit equipment cannot move in containers, MSC envisioned that container ships principally would move sustainment cargo, with RO/RO and breakbulk ships dedicated to the movement of ammunition and unit equipment. However, when the surge requirements of Operation Desert Shield exceeded available sealift capacity, MTMC engaged the services of container ships to move unit equipment. In doing so, it used more than 1,200 of DoD's flat-racks (but no sea-sheds) and numerous commercial flat-racks.[9] Specifically, one ocean carrier used its container ships in liner service, modified with both commercial and military flat-racks, to move 750 40-foot container equivalent units of VII Corps equipment from

[9]Based on separate discussions with MSC and MTMC in April 1991.

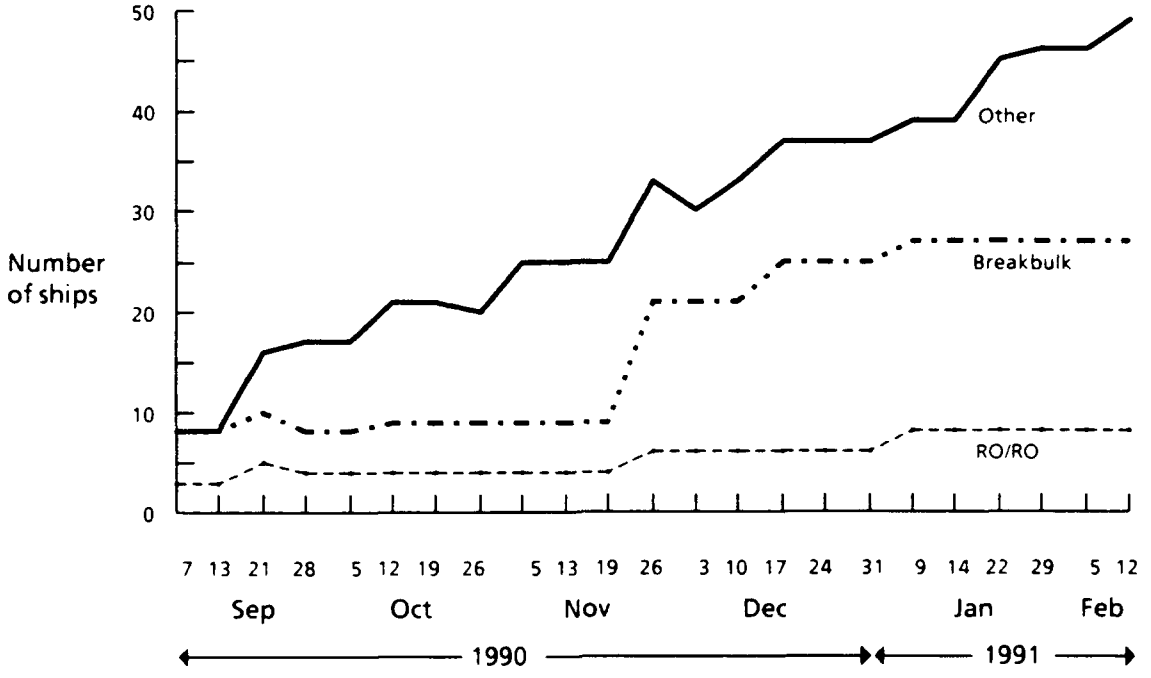

FIG. 3. USE OF U.S.-FLAG CHARTERS

(7 September 1990 through 12 February 1991)

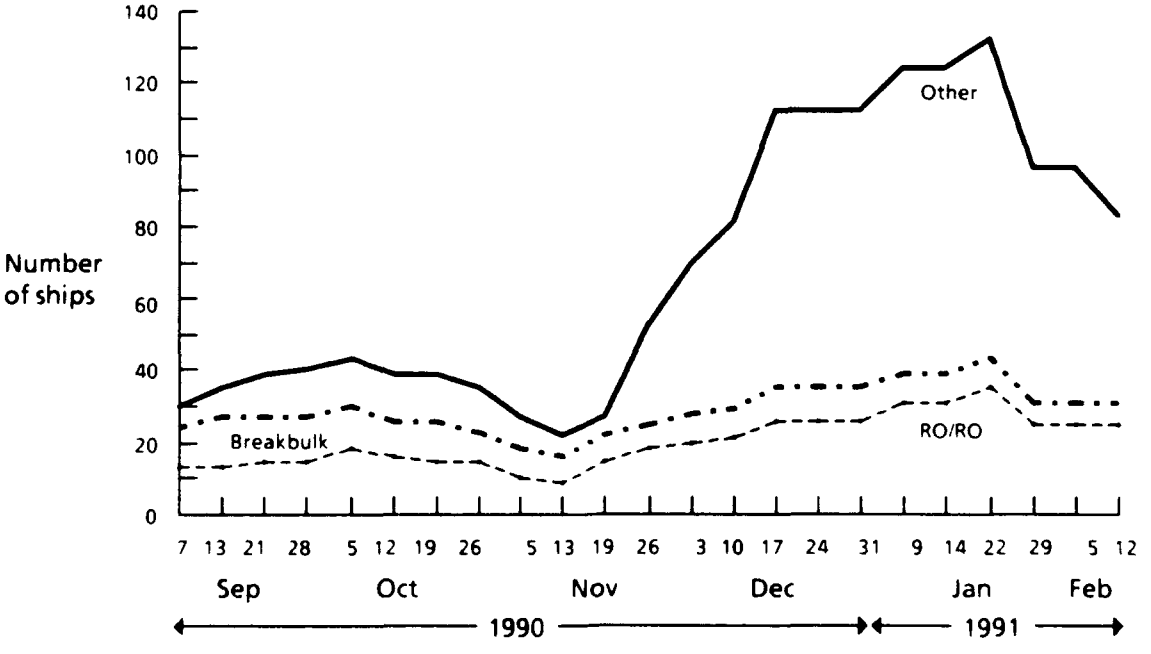

FIG. 4. USE OF FOREIGN-FLAG CHARTERS

(7 September 1990 through 12 February 1991)

Northern Europe to Saudi Arabia.[10] That move occurred between mid-November 1990 and early January 1991.

Figure 5 shows the cumulative dry-cargo tonnages delivered by U.S.- and foreign-flag chartered vessels and U.S.-flag liner ships under the SMESA to the Persian Gulf between late August 1990 and early April 1991. Through 5 March 1991, U.S.-flag charters had moved 300,000 short tons, foreign-flag charters another 700,000 short tons, and U.S.-flag SMESA carriers 600,000 short tons. The SMESA carriers also used foreign-flag "feeder" vessels to carry cargo into the theater of operation.

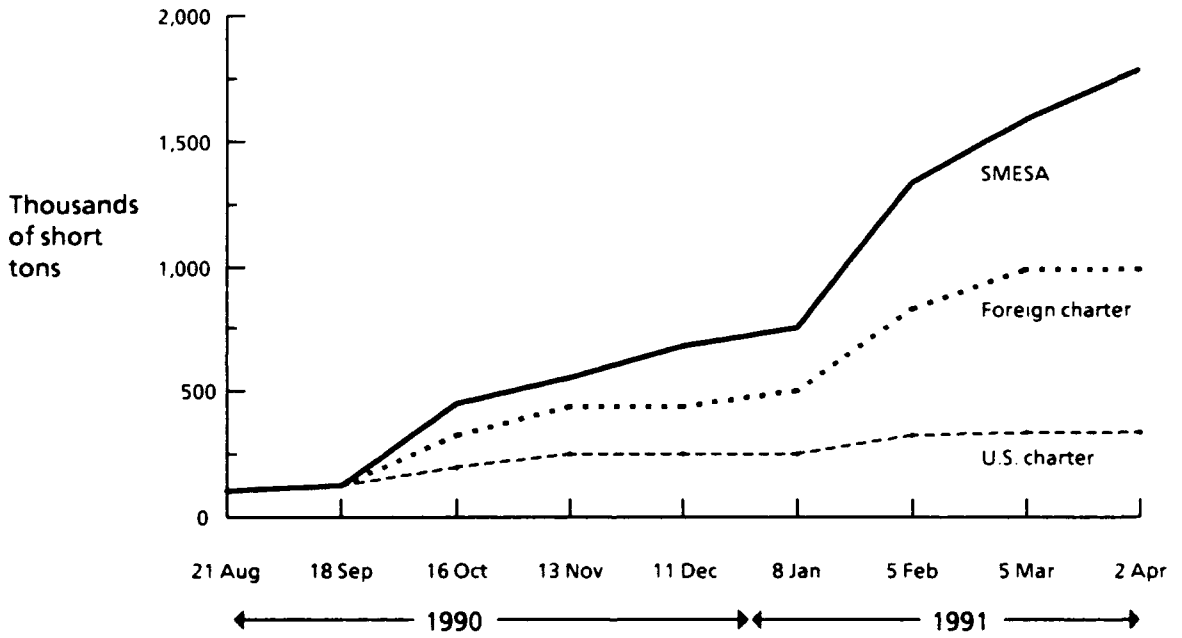

FIG. 5. COMMERCIAL DRY-CARGO DELIVERIES TO PERSIAN GULF

Sealift Readiness Program

Although 132 ships are committed to the SRP, MSC did not call up any SRP ships during Operation Desert Shield/Storm. However, it did place charters for the services of a number of ships that are committed to the SRP, particularly RO/RO and breakbulk ships. The time-charter rates that MSC paid for those ships were established by prevailing market conditions, without benefit of the SRP contract.

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[10]Standard commercial flat-racks have a 30-ton capacity; military flat-racks can support cargo weighing up to 60 tons.

MSC also, through the SMESA, used the liner service of several container ships committed to the SRP.

Seaports

The outloading of unit equipment, supplies, ammunition, and other materiel in support of Operation Desert Shield/Storm occurred at 17 CONUS ports (see Table 2) under the cognizance of MTMC, DoD's single manager for traffic management. Those ports do not include Navy facilities that served as departure ports for ships bound for the Persian Gulf and other ports used by the Military Departments and Defense agencies for ship outloading, repairs, refueling, and other purposes.

TABLE 2

CONUS PORTS SUPPORTING OPERATION DESERT SHIELD/STORM

Atlantic ports	Gulf ports	Pacific ports
MOT Bayonne, NJ[a]	Gulfport, MS	Tacoma, WA
NWS Earle, NJ[a,b]	Beaumont, TX	NWS Concord, CA[a,b]
Newport News, VA	Houston, TX	MOT Oakland, CA[a]
Morehead City, NC		Port Hueneme, CA[a]
Wilmington, NC		Long Beach, CA
MOT Sunny Point, NC[a,b]		
Charleston, SC[c]		
Savannah, GA		
Jacksonville, FL		

Source: MTMC.

[a] Military port.

[b] Used primarily to outload ammunition.

[c] Used both commercial and military port facilities.

Between 8 August 1990 (the onset of port operations in support of Operation Desert Shield) and 6 March 1991, the 17 ports staged and outloaded nearly 1.3 million short tons of materiel aboard 312 ships. They accounted for approximately one-third of the 3.5 million short tons of sealift tonnage.[11] Table 3 shows the tonnages shipped through each port for three MTMC-designated Operation Desert

[11] Vice Admiral Francis R. Donovan, Jr., COMSC, testimony before the House Armed Services Subcommittee on Seapower and Strategic and Critical Materials, 19 February 1991.

Shield/Storm phases that roughly equate to surge, sustainment, and postsustainment. Of the 17 ports, each of the 11 commercial ports has the capability to support container ships but only one military port, MOT Sunny Point, can do so.

TABLE 3

MTMC OUTLOAD TONNAGES BY CONUS PORTS

(Thousands of short tons)

Port	MTMC Phase[a]			Total
	I	II	III	
Atlantic				
MOT Bayonne, NJ[b]	32.7	44.6	34.7	112.0
NWS Earle, NJ[b]	0.0	7.3	0.0	7.3
Newport News, VA	11.6	17.3	0.0	28.9
Morehead City, NC	0.0	9.9	0.0	9.9
Wilmington, NC	28.4	23.2	0.0	51.6
MOT Sunny Point, NC[b]	50.6	254.7	0.0	305.3
Charleston, SC	28.0	9.7	0.0	37.7
Savannah, GA	68.3	5.9	0.0	74.2
Jacksonville, FL	94.0	74.4	11.1	179.5
Subtotal	313.6	447.0	45.8	806.4
Gulf				
Gulfport, MS	0.0	2.8	0.0	2.8
Beaumont, TX	74.9	6.6	0.0	81.5
Houston, TX	114.6	82.1	0.0	196.7
Subtotal	189.5	91.5	0.0	281.0
Pacific				
Tacoma, WA	3.9	6.5	0.0	10.4
NWS Concord, CA[b]	13.7	33.5	0.0	47.2
MOT Oakland, CA[b]	20.3	18.3	3.4	42.0
Port Hueneme, CA[b]	6.9	0.0	0.0	6.9
Long Beach, CA	9.4	23.5	0.0	32.9
Subtotal	54.2	81.8	3.4	139.4
Total	557.3	620.3	49.2	1,226.8

Source: MTMC

[a] Phase I: 8 August 1990 to 24 November 1990; Phase II: 25 November 1990 to 6 February 1991; Phase III: 7 February 1991 to 6 March 1991.

[b] Military port

MTMC also used 15 overseas ports (10 commercial and 5 military) to outload military materiel in support of Operation Desert Shield/Storm. Table 4 lists those ports, 10 of which were committed principally to the movement of ammunition. Between 8 August 1990 and 6 March 1991, the overseas ports outloaded more than 0.8 million short tons of materiel aboard 184 ships to the Middle East.

TABLE 4

OVERSEAS PORTS USED BY MTMC

Europe	
Antwerp, Belgium	Amsterdam, The Netherlands[a]
Bremerhaven, Germany	Eemshaven, The Netherlands[a]
Nordenham, Germany[a]	Emden, The Netherlands[a]
Livorno, Italy	Rotterdam, The Netherlands
Tombolo, Italy[a]	
Pacific	
Chinhae, Republic of Korea[a,b]	Tengan, Okinawa[a,b]
Guam[a,b]	Naha, Okinawa
Sasebo, Japan[a,b]	Subic Bay, Philippines[a,b]

Source: MTMC.

[a] Used primarily to outload ammunition.

[b] Military facility only.

The appendix describes three topics concerning port operations that surfaced during Operation Desert Shield/Storm, none of which warrants specific action by DoD.

ENHANCING SEALIFT AUGMENTATION

MSC did not call up any SRP ships during Operation Desert Shield/Storm because of the availability of charter ships, particularly from foreign sources, and space on U.S. commercial vessels. The charters also gave MSC access to considerably more RO/RO and breakbulk ships than did the SRP, which MSC considered

particularly important for surge.[12] Further, during the early stages of Operation Desert Shield, MSC believed the potential for activation of the SRP pressured U.S.-flag carriers to provide liner service under the SMESA (rather than face the call up of dedicated ships under the SRP). Finally, MARAD had previously notified the Department of the Navy on 14 June 1990 that "... at the present strength of the [U.S.-flag commercial] fleet no more than 10 ships is the probably maximum feasible call-up of SRP ships...." MARAD also advised MSC that if it called up more than those 10 container ships, the carriers would incur substantial monetary losses. However, MSC's Worldwide Container Agreement and the SMESA contract both contain clauses that effectively permit an adjustment of rates for unforeseen operating conditions, thereby limiting damage claims.

In light of this experience, DoD faces a pressing management question regarding the SRP: Is it still needed? If the answer is yes, then DoD needs to determine what enhancements are required to assure its viability during future emergencies. We examine the need for the SRP in the following subsection.

Requirement

We believe that the concept of a standby mechanism to make U.S.-flag shipping assets available for DoD use during emergencies is still sound, particularly for those emergencies that do not receive wide international support and require a more rapid response than did Operation Desert Shield/Storm.

Foreign-flag chartered vessels, particularly RO/RO and breakbulk, were placed under contract early and used extensively throughout the Persian Gulf War. However, such a dependence upon foreign-flag charters presents DoD with a problem. Although available in the commercial marketplace when needed for Operation Desert Shield/Storm, those vessels may not be so accessible in the future because of political and market conditions.

RO/RO and breakbulk ships are being replaced by more commercially useful container ships. This situation is most evident in the U.S.-flag fleet, which has only 19 RO/RO and 31 breakbulk ships among its 397 ships. The limited availability of RO/RO and breakbulk vessels is further substantiated by the foreign-charter rates paid by MSC during Operation Desert Shield/Storm. According to MARAD data for

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[12]Center for Naval Analyses, *A First Look at Sealift Options for the 1990s in Light of the Experience in Operation Desert Shield*, Report CRM91-11, January 1991.

24 foreign-flag RO/RO ships (of all types and sizes), MSC paid an average of 75 percent more than pre-Operation Desert Shield/Storm market rates for those ships. MSC further noted that it paid a premium of only 20 percent for breakbulk ships. Part of these increases, however, can be attributed to the relatively short duration of the contracts and to the demanding and hazardous services required. Also, GAO concluded that the higher prices did not stem from MSC's contracting practices.[13]

The lengthy build-up of Operation Desert Storm forces provided DoD with ample time to develop and award the SMESA and to charter ships for surge and sustainment. Future emergencies may not give DoD similar time to augment its organic sealift capabilities with commercial assets. Some type of standby augmentation mechanism, with provisions that can be readily implemented, would enable DoD to meet its strategic sealift requirements more responsively.[14]

We believe that a sound standby sealift mechanism should embody the following features:

- Preparation for use of dedicated vessels, liner service, containers, shoreside facilities, and computer-tracking capabilities, as required
- Established procedures to phase in sealift capability as needed and to release sealift capability that is no longer needed
- Prelodged contract terms that address carrier rates during emergencies and procedures for adjusting them as circumstances warrant
- Joint DoD/industry planning to meet emergency sealift requirements.

The SRP, as currently structured, only partially addresses these features. In the following sections, we present our ideas for updating and expanding the SRP into a viable and effective sealift augmentation program. We begin with proposals for using container ships more effectively.

Use of Container Ships

Many unit commanders and military planners express a preference for RO/RO ships to move unit equipment and to meet surge requirements. They base that

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[13]See GAO report, *Military Sealift Command Contracts for Operation Desert Shield*, May 1991.

[14]The ongoing Mobility Requirements Study should provide the planning time factors to obtain commercial sealift during future emergencies.

preference upon a desire to maintain unit integrity and to rapidly load and discharge cargo. Accordingly, on 10 August 1991, MSC requested that MARAD activate all 17 RO/RO ships in the RRF to augment the MSC-controlled fleet. MSC also chartered commercial RO/RO ships, both U.S. and foreign flag, and used some military flat-racks to move unit equipment in container holding areas of the RRF and commercial RO/RO vessels.

Nonetheless, commercial carriers have established an infrastructure for supporting the use of their container ships that could contribute substantially to DoD meeting future surge requirements. That infrastructure includes an intermodal network and an extensive cargo-tracking capability. As noted previously, MTMC arranged for one major U.S.-flag ocean carrier to move some of the equipment of several units of the U.S. Army VII Corps from Northern Europe to Saudi Arabia. Employing several container ships – modified with both commercial and military flat-racks and supported by a cargo-tracking system that it uses routinely in commercial trade – the carrier demonstrated that container ship liner service can meet the Army's need for an emergency deployment. In this situation, the carrier delivered the unit equipment ahead of schedule.

The need to use container ships, including liner service, during surge could even increase as RO/RO and breakbulk ships become increasingly scarce. Foreign carriers, much like the U.S. carriers earlier, are replacing their RO/RO and breakbulk ships with container ships, so even fewer will be available for charter in the future.

Although the SRP addresses the use of whole container ships, it is silent on liner services. It also does not provide for the use of shore facilities, intermodal movements, or cargo-tracking capabilities – all of which are necessary and routinely provided under commercial liner-service contracts. The economics of container shipping further dictates a relatively high utilization rate for profitability, which often translates into use of liner services rather than charters. Liner service, provided under the SMESA, proved valuable for both sustainment and the second surge of sealift, and its permanent inclusion in the SRP would ensure that MSC has the added flexibility to move cargoes that are uneconomical for whole container ships.

Based upon current trends in ocean transportation, we believe that DoD should further complement its use of RO/RO and breakbulk ships with the capability to make greater use of container ships and container ship liner service to meet surge and sustainment military requirements. (Such action would also bring DoD into full compliance with the National Security Sealift Policy of 1989 and the Department of Defense Transportation Policy of 1990, which direct DoD to be better prepared to use container ships and intermodal capabilities.[15]) We also believe that the U.S. Transportation Command (USTRANSCOM), DoD's primary transportation planning and execution command, should take the lead in promoting increased use of container ships during mobilization.

Recommendation. USTRANSCOM, in coordination with MSC and the Military Departments, should lay out a strategy for expanded use of container ships and container ship liner service during both surge and sustainment phases of national emergencies.

Recommendation. MSC, with assistance from U.S.-flag carriers, should develop procedures for incorporating worldwide intermodal transportation services into the SRP.

Requirement Service Categories

One of the key features of an effective sealift augmentation program is the flexibility to add sealift capability only as needed. To achieve this, we believe DoD needs to establish requirement service categories that permit dedicated ships or liner service to be called up as the emergency requires and to be released when the ships or services are no longer needed. The specification of required capabilities by service category also would help the carriers to improve planning for the utilization of their fleets and provide the needed lift to DoD. To effectively use liner service, for example, MSC would need to work with the carriers to establish the percentages of liner-service capacity that they would make available to the DoD when the SRP is invoked.

Also, MSC, in conjunction with the carriers, would need to establish an activation time for each requirement service category that could be used for carrier and DoD planning. Such times would specify when the commercial shipping capability was to be made available to DoD. For example, major ocean carriers

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[15]MSC is already making some progress. In a 27 September 1991 *Journal of Commerce* article, COMSC is quoted as saying "we were loading ammunition the same way the Phoenicians were . . . we have to make better use of containerized equipment and ships."

believe that they could provide container ships within 3 days of notification. Other ships, such as RO/RO and breakbulk, may require more time, primarily because many of the companies that operate those ships have relatively small fleets that make it more difficult for them to quickly "free up" vessels to meet military requirements. During actual emergencies, of course, sealift capabilities would be activated as needs require and availabilities permit.

As shown in Table 5, we believe that six requirement service categories would satisfy both DoD and the carriers.

TABLE 5

PROPOSED REQUIREMENT SERVICE CATEGORIES

Category	Cargo	Ship availability from time of notification (days)	Dedicated ship	Type of ship
1	Sustainment	3	No	Container
2	Sustainment	10	Yes	RO/RO, breakbulk
3	Ammunition	7	Yes	Breakbulk, heavylift
4	Ammunition	3	Yes	Container
5	Unit equipment	3	No	Container
6	Unit equipment	10	Yes	RO/RO, breakbulk

Recommendation. MSC, with advice from U.S.-flag carriers, should use requirement service categories to promote carrier participation in the SRP and call-up sealift capabilities during emergencies.

Procurement and Mobilization Planning

The Navy's emphasis on competitive bidding by U.S.-flag carriers for DoD's sealift business hinders the development of a viable SRP and the establishment of a productive and lasting partnership with the maritime industry. Both are vital for DoD to fully capitalize upon the carriers' sealift capabilities to meet deployment requirements.

The MSC contracting process, as guided by the Competition in Contracting Act (CICA), assumes that direct competitive bidding by U.S.-flag carriers for military

cargo yields the required peacetime and wartime sealift capabilities at the lowest possible cost. Instead, we believe that it

- Creates an adversarial relationship between MSC and ocean carriers
- Inhibits contingency planning
- Produces volatile rates
- Yields rates that are not necessarily the lowest for the Government.

By adhering strictly to direct competitive bidding, MSC presents a clear signal to U.S.-flag carriers that they and DoD have only a contractual business relationship, with the usual adversarial positions that accompany such an arrangement. DoD seeks the best sealift services at the lowest possible cost, while the carriers seek to maximize their profits from the services they provide DoD during peacetime. Although both objectives are understandable, they tend to focus on peacetime services, ignoring the wartime requirements.

MSC already works with industry to improve mobilization coordination and execution, largely through the National Defense Transportation Association and the National Defense Executive Reserve. However, industry has not been a full partner in the development of sealift contingency plans, the formulation of strategic sealift strategies, and the assessment of carrier capabilities to meet requirements, primarily because of CICA restrictions. The limitations of the current industry-Government partnership were evident during Operation Desert Shield when the carriers expected MSC to use their excess liner-service capacities and available container ship charters; but, as explained previously, MSC chartered a number of RO/RO and breakbulk ships instead.[16]

Even with its reliance on direct competitive bidding, MSC is periodically dissatisfied with the bids it receives for service over some trade routes. For example, MSC rejected over 1,000 rates submitted in response to its April 1990 RFP on the grounds that they were higher than the rates the carriers' charged for comparable commercial service.[17] One carrier subsequently protested MSC's actions and that protest was upheld by the GAO on technical grounds. More recently, MSC asked the Federal Maritime Commission to determine whether Sea-Land, Inc., had

[16]Based on separate discussions with MSC and an ocean carrier in March and April 1991.

[17]See "U.S. Ocean Carriers Await Military Sealift Cargo Bid Rules," *The Journal of Commerce*, 31 July 1990.

overcharged the Government for Persian Gulf War shipments.[18] Moreover, some shipper services have independently obtained or threatened to obtain sealift outside the MSC procurement process because of lower rates in the international market.[19] For example, the Army and Air Force Exchange System, a high-volume shipper, sought and obtained commercial bids for moving beverage shipments to Kaiserslautern, Germany, in 1989. The commercial bids were 14 to 28 percent below the MSC billing rates, depending upon port of origin.

A factor contributing to the failure of direct competitive bidding to yield consistently low rates is the small number of U.S.-flag carriers that bid for MSC contracts. It is not unusual for as few as two carriers to bid for services over specific trade routes, clearly not an ideal competitive situation.

However, MSC may be able to lower its rates by adopting recent commercial contracting practices. Since passage of the Shipping Act of 1984, commercial carriers increasingly have made special arrangements with their major shippers, whereby shippers commit to long-term contracts and volume guarantees in exchange for low rates and more responsive service. (In contrast, MSC uses 6-month contracts with ocean carriers for the movement of DoD cargo and provides no volume guarantees.) To illustrate the impact of those relationships, the 1 October 1988 conference rate for aluminum scrap from the U.S. West Coast to Japan averaged $2,639 per container, while several long-term contract rates averaged $1,294 per container, or 51 percent lower.[20] (The special contract rates, not the conference rate, actually applied to all trade on this route.)

These observations on procurement practices are not new to DoD. Shortly after the Civil Reserve Air Fleet Program was launched in 1952, the Military Airlift

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[18]See "CSX Chief Defends Sea-Land Rates on Persian Gulf War Shipments," *The Journal of Commerce*, 25 September 1991.

[19]LMI Report PL910R1, *Transportation Industrial Fund Policy: Improving Efficiency*, Alfred H. Beyer and Lawrence Schwartz, October 1989.

[20]For further evidence see Federal Maritime Commission, *Section 18 Report on the Shipping Act of 1984*, September 1989.

Command (MAC) faced many of the same challenges confronting MSC today. Among MAC's concerns were how it could best:

- Establish an effective partnership with industry
- Obtain stable rates
- Use commercial assets to meet deployment requirements.

The primary action that MAC took to meet those challenges was to replace direct competitive bidding (for obtaining airlift services during both peacetime and wartime) with constructed rates based upon the carriers' cost of conducting business in the commercial marketplace (which reflects the most rigorous source of competition). The CICA, in fact, recognizes that a full industry partnership in emergency contingency planning may not be possible under the competitive procurement process and consequently grants exceptions to that process for better mobilization planning.

In a 1988 report to the President, the Commission on Merchant Marine and Defense also recognized the need to change sealift procurement practices. It recommended that

> The Department of Defense . . . should change the method for solicitation for procurement of ocean transportation services to a stable rate system based on the established . . . tariff rates used for commercial shippers.[21]

The Commission's recommendation essentially called for MSC to base its rates on commercial tariff conference rates, rather than on the U.S.-flag carrier market for military cargo. The Commission believed that MSC would stabilize its sealift costs by doing so. The recommendation also implicitly called for MSC to seek an exception to full and open price competition under CICA on the grounds of national security and mobilization.

We believe that the use of constructed rates and long-term contracts, with guaranteed volumes, could improve DoD's mobilization planning for strategic sealift and stabilize its costs for sealift services. The DoD already has an effective precedent in its strategic airlift program for changing MSC's procurement practices.[22]

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[21] *Findings of Fact and Conclusions*, Third Report of the Commission on Merchant Marine and Defense, U.S. Government Printing Office, Washington, D.C., 30 September 1988.

[22] See LMI Report PL023R2, *Review of DoD's Strategic Mobility Programs: Civil Reserve Air Fleet*, Lawrence Schwartz, Alfred H. Beyer, Frederick M. McNamee, Click D. Smith, and John A. Ciucci, May 1991.

However, because sealift is so different from airlift, we believe that MSC should conduct a test before making any sweeping changes to its procurement and mobilization planning practices.[23] We detail the steps of that test below.

First, MSC should develop a constructed rate process and consider doing so employing a long-term contract with guaranteed volumes. Second, MSC should select a major trade route to test the feasibility and workings of that process. For that trade route, MSC should be granted an exception to price competition under CICA, which would permit MSC and ocean carriers to collaborate on planning and coordinating emergency sealift on that trade route.[24]

> *Recommendation.* MSC, with assistance from U.S.-flag carriers, should formulate interim procedures for establishing long-term contracts employing guaranteed tonnages and constructed liner rates based upon the carriers' commercial costs. MSC should then test those procedures on a selected trade route.

> *Recommendation.* Assistant Secretary of the Navy for Research, Development, and Acquisition should authorize MSC to obtain sealift services on a selected trade route without price competition for the period of the test.

Finally, building upon the airlift experience, MSC should develop a mobilization point system to allocate DoD's peacetime business among participating U.S.-flag carriers and to encourage carriers to offer militarily useful assets. As part of the test, MSC could award mobilization points to carriers for providing superior service or storing flat-racks and sea-sheds in locations readily available for emergencies; submitting vessels with militarily useful features; and offering communication, cargo-tracking, and intermodal capabilities.

> *Recommendation.* MSC should allocate DoD peacetime cargo to U.S.-flag ocean carriers based upon their voluntary contributions to the SRP. MSC should establish a mobilization point system that encourages carriers to offer militarily useful sealift assets, taking into account desired types and quantities of vessels, liner service, and infrastructure. MSC should assess the potential of that system during the test.

In the following subsection, we lay out an expanded and more flexible structure for the SRP.

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[23]The Office of Federal Procurement Policy encourages pilot or test procurement programs.

[24]The CICA provides six provisions for receiving justification and authorization not to use full and open competition. One such provision is industrial mobilization [10 U.S. Code Section 2304(C)(3)].

Call-Up Procedures

In the development of procedures to obtain sealift services by requirement service categories during national emergencies, we propose that MSC assign top priority to volunteer sealift, including vessel charters and liner services, by U.S.-flag carriers. This practice would encourage DoD's use of available sealift capability in the marketplace.

We further propose that MSC use mobilization points to obtain volunteer sealift. If volunteer sealift exceeds that needed in any requirement service category, MSC could use mobilization points to select the specific capability, with all volunteer sealift entailing a long-term commitment. By using mobilization points to select volunteer sealift, MSC would reward carriers for providing good service in peacetime and offering militarily useful sealift assets to the SRP. In the event of a formal activation of SRP capability, MSC could select individual ships. When deactivating sealift capability, volunteer sealift would be released last, reinforcing the point that volunteer sealift is a long-run commitment.

> *Recommendation.* MSC, with advice from U.S.-flag carriers, should develop procedures for calling up commercial sealift, by requirement service categories, to augment organic capabilities; MSC should give priority to volunteer sealift.

As DoD's single manager for ocean transportation, MSC should propose all commercial ship activations, by requirement service category, to USTRANSCOM. In turn, the JCS would validate the need for commercial augmentation. Following that validation, USTRANSCOM should have authority to call up a small capability within each requirement service category. The USTRANSCOM authority level should be limited to a percentage that would not have a major impact on either the economy or commercial sealift operations, with DoD and DOT periodically reviewing the call-up percentage.

> *Recommendation.* USTRANSCOM should have authority to activate a small percentage of capability within each requirement service category; the Secretary of Defense should retain authority for calling up all remaining capabilities. DoD and DOT should periodically review the USTRANSCOM call-up authority level.

Policy

The current structure of the SRP and provisions for its use are now contained in various outdated documents. We believe the tenets of a revised SRP need to be formally established as DoD policy, with the preparation of a DoD directive for strategic sealift services essential to long-term improvement.

> *Recommendation.* Assistant Secretary of Defense (Production and Logistics), ASD(P&L), should prepare a DoD directive that establishes an updated and expanded SRP, addressing its purpose, structure, call-up procedures and authority, management, and oversight.

As a result of DOT's responsibilities in U.S. maritime matters, some of our proposals for an updated and expanded SRP may require DOT concurrence. One effective way to officially gain that concurrence is through an MOU that lays out, as a minimum, the SRP's general objective, structure, and call-up procedures. It also would specify the respective roles and responsibilities of DOT and DoD in supporting and administering the SRP.

> *Recommendation.* ASD(P&L) should seek to establish an MOU between DOT and DoD on the SRP.

SUMMARY

The DoD made extensive use of commercial markets to obtain liner services and charter ships for the Persian Gulf War. It did not, however, call for any sealift capability through the SRP, its principal standby mechanism for augmenting organic sealift with commercial assets. We believe that an updated and expanded SRP is vital to the success of future deployments because it would ensure access to U.S.-flag ships in a timely manner.

We recommend that DoD incorporate the following features into the SRP:

- Capability for expanded use of container ships and liner service during both surge and sustainment
- Constructed rates based upon carrier competition in commercial markets with long-term contracts and guaranteed tonnages
- Mobilization points to allocate peacetime business
- Requirement service categories to discriminate among sealift requirements and capabilities

- Priority use of volunteer sealift services during emergencies
- Hierarchy of activation authority
- Flexible call ups of commercial sealift capabilities.

The last feature, flexible call ups, is implicit in the use of volunteer sealift, mobilization-point selections of specific capabilities, and a hierarchy of activation authority.

Table 6 summarizes our proposals for revitalizing the SRP and compares them to the current program, while Table 7 provides a similar summary for the call up of sealift.

TABLE 6

STRUCTURE OF SEALIFT READINESS PROGRAM: CURRENT AND PROPOSED

Feature	Current	Proposed
Carrier commitments	• 50 percent of fleet if nonsubsidized and receive any DoD business • 100 percent of fleet if subsidized (most carriers)	Develop voluntary program, including mobilization point system
Services	• Whole vessels • Limited infrastructure • Undifferentiated by type of requirement	• Whole vessels • Liner service • Full infrastructure • Requirement service categories
Planning/contracts	• Limited mobilization planning • Direct price competition (few U.S. competitors) • 6-month contracts • Uncertain tonnages	• Improved climate for mobilization planning • Constructed rates from carriers' international costs (many international competitors) • Long-term contracts (at least 1 year in duration) and guaranteed minimum tonnages
Willingness to use	Unit Commanders prefer RO/RO ships to maintain unit integrity	• Publicize success of container ship liner service for second surge • Develop strategy to utilize all types of ships and services, as appropriate

TABLE 7

CALL UP OF SRP ASSETS: CURRENT AND PROPOSED

Action	Organizational responsibility	
	Current (on paper)	Proposed
Determine need for additional sealift	MSC	USTRANSCOM (after JCS validation)
Determine whether RRF can meet requirement	Secretary of Defense (SECDEF)	MSC/USTRANSCOM/JCS
SRP call up (if RRF cannot meet need)	• MSC initiates • SECDEF approves • DOT approves • MARAD performs economic assessment; limits call up	• MSC initiates • USTRANSCOM activates small percentage (after JCS validation) • SECDEF activates remaining capability • Contract sets limits on call ups • DOT approves

LIST OF RECOMMENDATIONS

We recommend the following actions:

1. *Container ships.* USTRANSCOM, in coordination with MSC and the Military Departments, should lay out a strategy for expanded use of container ships and container ship liner service during both surge and sustainment phases of national emergencies.

2. *Intermodal service.* MSC, with assistance from U.S.-flag carriers, should develop procedures for incorporating worldwide intermodal transportation services into the SRP.

3. *Requirement service categories.* MSC, with advice from U.S.-flag carriers, should use requirement service categories to promote carrier participation in the SRP and call-up sealift capabilities during emergencies.

4. *Constructed rates.* MSC, with assistance from U.S.-flag carriers, should formulate interim procedures for establishing long-term contracts employing guaranteed tonnages and constructed liner rates based upon the carriers' commercial costs. MSC should then test those procedures on a selected trade route.

5. *CICA competition exception.* Assistant Secretary of the Navy for Research, Development, and Acquisition should authorize MSC to obtain sealift

services on a selected trade route without price competition for the period of the test.

6. *Mobilization points.* MSC should allocate DoD peacetime cargo to U.S.-flag ocean carriers based upon their voluntary contributions to the SRP. MSC should establish a mobilization point system that encourages carriers to offer militarily useful sealift assets, taking into account desired types and quantities of vessels, liner service, and infrastructure. MSC should assess the potential of that system during the test.

7. *Call-up procedures.* MSC, with advice from U.S.-flag carriers, should develop procedures for calling up commercial sealift, by requirement service categories, to augment organic capabilities; MSC should give priority to volunteer sealift.

8. *Call-up authority.* USTRANSCOM should have authority to activate a small percentage of capability within each requirement service category; the Secretary of Defense should retain authority for calling up remaining capabilities. DoD and DOT should periodically review the USTRANSCOM call-up authority level.

9. *DoD directive.* ASD(P&L) should prepare a DoD directive that establishes an updated and expanded SRP, addressing its purpose, structure, call-up procedures and authority, management, and oversight.

10. *Updated DoD-DOT MOU.* ASD(P&L) should seek to establish an MOU between DOT and DoD on the SRP.

These recommendations have the potential to substantially upgrade DoD's commercial sealift augmentation program during national emergencies, and the experiences of the Persian Gulf War clearly support their implementation.

Although port security was an area of concern during Operation Desert Shield/Storm, it did not become a problem. Nonetheless, port security is a crucial function that warrants comprehensive and continuing review. The evolving initiatives addressing port security can be expected to improve existing plans and practices, as we describe in the appendix.

APPENDIX

PORT OPERATIONS

This appendix addresses three topics concerning port operations in the Continental United States that surfaced during Operation Desert Shield/Storm: Federal controls, staging and outload capability, and security.

FEDERAL CONTROLS

Executive Order 11490, as amended, assigns responsibility for port and marine terminal emergency planning and preparedness to the Secretary of Transportation. Title 49 of the Code of Federal Regulations (CFR), Part 1.45, further delegates to the Maritime Administration (MARAD) authority "to prepare national emergency plans and develop preparedness programs covering Federal emergency operational control responsibilities with respect to ocean shipping, ports, and facilities."

In January 1985, Title 46 CFR, Allocation of Port Services and Facilities for Defense Agency Use, established procedures for Department of Defense (DoD) use in requesting, granting, and allocating the use of port facilities and maritime-related services if normal commercial arrangements cannot meet requirements. Its overall objective is to satisfy national defense requirements with minimal effect on commercial operations. It also formalizes what had previously been an "earmarking" of port facilities and services by MARAD for potential DoD use during emergencies.

The provisions of Title 46, Part 340, that authorize the priority use of commercial port facilities by vessels supporting military deployments were cited at least once during Operation Desert Shield/Storm outloading. That incident occurred when the operators of a commercial vessel demanded to use pier space at Portland, Oregon, for which they had previously contracted but was being used by a Ready Reserve Force vessel completing its activation. When the provisions of Title 46 CFR, Part 340, were brought to the attention of the commercial ship's agent, the operators dropped their demand. Further, port and military representatives from the ports of Beaumont, Texas; Jacksonville, Florida; and Wilmington, North Carolina, explicitly

noted that the provisions of Title 46 CFR, Parts 340 through 347, are appropriate and suitable to meet U.S. deployment needs.

PORT CAPABILITIES

The ability of commercial ports to receive, stage, and outload military equipment and supplies is vital to the success of any deployment. The primary role of commercial ports during a deployment is to supplement military ocean terminals, which alone have neither the required capacity nor ship loading capability.

The DoD uses commercial ports to support peacetime and exercise requirements, as well as intensive high-volume national emergency requirements. During both the surge and sustainment phases of the Persian Gulf War, DoD sealifted approximately 3.5 million short tons of dry cargo to the operational area. Much of that tonnage, including thousands of tracked and wheeled vehicles, helicopters, and self-propelled and towed artillery, was received, staged, and outloaded at commercial ports that also continued to provide uninterrupted service to their commercial customers. Although this dual service testifies to the ports' substantial capacity, port authority personnel claim that they could have made even more staging sites available if required.

The receipt of Operation Desert Shield/Storm cargo was further aided by the commercial ports' accessibility to servicing highway and rail carriers, and by the port representatives' desire to support the deployment. As an example, the port of Beaumont representatives noted that the port did not require any special arrangements with either rail or highway carriers. (The port of Beaumont is serviced by four rail carriers and has its own rail-switching contractor.)

The general ability of commercial ports to receive, stage, and outload large quantities of military cargo (including heavylift items) was clearly demonstrated during the surge phase of Operation Desert Shield. Despite the heavy influx of military equipment and materiel over a relatively brief period, the commercial ports responded with no deterioration in service to their commercial customers.

PORT SECURITY

Both DoD and the Department of Transportation define port security as actions taken to safeguard vessels, harbors, ports, waterfront facilities, and cargo from internal threats such as destruction or loss from sabotage, civil disturbance, accident,

or theft. The primary responsibility for port security rests with the owners, operators, masters, and agents of vessels, and with the owners and operators of waterfront facilities. Protection from civil disturbances, such as demonstrations or riots, and terrorist activity is principally a matter for local civil law enforcement agencies. However, the U.S. Coast Guard, through its local representative, the Captain of the Port, has overall port security authority. The Captain of the Port is responsible for the protection and security of the port area and may, if circumstances warrant, direct the implementation of specific port security procedures.

The quality of security at the nation's commercial ports varies considerably. Some port authorities have security forces composed of highly trained and professional state or municipal police officers; others must develop a security force from the available workforce, most of whom have little or no police training. The small size of some port security forces further limits their ability to provide little more than port access control and random area checks.

Although the ports' security forces and procedures may be sufficient for routine commercial operations, the additional security burden imposed by the receipt, staging, and outloading of military equipment often exceeds their capability.[1] Military deployments also introduce the potential for terrorism directed at vessels, waterfront facilities, or cargoes. Because of that possibility, DoD routinely provides additional security personnel at commercial ports where military equipment is being loaded.

The primary military sources of security personnel are Port Security Detachments, Port Support Activity Security Elements, and Transportation Terminal Unit Security Cells. The Military Traffic Management Command has three U.S. Army Reserve Port Security Detachments, consisting of 30 personnel each, under its command and control. The Port Support Activities, which are assigned to U.S. Army Forces Command (FORSCOM) installations to expedite the deployment of units from those installations, have organic elements to provide security for deploying units' classified and hazardous cargo. The Transportation Terminal Unit Security Cells consist of one officer and three noncommissioned officers. Supplemented by personnel from deploying units, other Military Services, and even

[1]Based on discussions with port authority representatives in January 1991 and with U.S. Coast Guard in April 1991.

local police departments, the cells coordinate security arrangements at commercial ports.

The intensive workload triggered by the surge requirements of Operation Desert Shield provided the impetus for the National Port Readiness Steering Group to establish, in September 1990, a Port Security Subcommittee to undertake a large-scale review of port security programs. The Subcommittee's draft report designates the U.S. Coast Guard as the lead agency to ensure effective interagency communication and to establish a command, control, and communication network that could be mobilized quickly in response to port security incidents.[2] The draft report further recommends the following actions:

A. The current Memorandum of Understanding [MOU] on Port Readiness should be revised to define inter-agency coordination roles and how each agency will react to a security threat/situation.

B. U.S. Coast Guard should be formally designated in the MOU as the lead coordinating agency for shared port security responsibilities.

C. FORSCOM should be signatory to the MOU.[3]

According to the U.S. Coast Guard's Office of Merchant Marine Safety, Environmental Protection, and Security, the Port Readiness Committees (PRCs) were extremely invaluable during Operation Desert Shield. Port representatives observed that outload operations were particularly smooth because the PRCs were in place, and the plans for their usage had been established well in advance.[4]

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[2]Current U.S. Coast Guard policies and regulations, in concert with Title 33, CFR Part 6, Subpart 6.19, place primary responsibility for vessel and waterfront facility security on the owner/operator, master, agent, or person in charge.

[3]FORSCOM would be the command and control element for Department of the Army, U.S. Army Reserve, Army National Guard (when federalized), and other Military Service personnel (to include the U.S. Coast Guard when operating under the Department of the Navy) assigned by the Secretary of Defense to commercial-port security.

[4]For a further discussion on U.S. port operations during Operation Desert Shield, see "Seminar on U.S. Port Operations During Desert Shield Mobilization," cosponsored by American Association of Port Authorities, U.S. Department of Transportation, and U.S. Department of Defense, Washington, D.C., 10 May 1991.