A REPORT TO CONGRESS ON U. S. MARITIME POLICY

FY 1996 - FY 2000

U.S. Department of Transportation
Maritime Administration

May 1998

THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

May 26, 1998

The Honorable John McCain
Chairman, Committee on
Commerce, Science and Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 14 of the Maritime Security Act of 1996 (the Act) requires the Department of Transportation (DOT) to prepare a report on implementation of its maritime policies during FY 1996-2000.

This report discusses how Federal maritime programs that have been developed to promote a strong U.S. maritime industry and to foster an efficient transportation system nationwide are helping to meet each of the objectives identified by Congress in the Act, and identifies DOT's maritime policy focus through the year 2000.

The overwhelming bipartisan support in Congress for the Maritime Security Act of 1996 and the National Shipbuilding and Shipyard Conversion Act of 1993 affirms America's commitment to our Nation's maritime industry. That commitment must continue unabated and, therefore, it will be DOT policy to support these initiatives. In addition, DOT will support continuation of existing cabotage laws, effective management of the Ready Reserve Force by the Maritime Administration, enforcement of certain government-impelled cargo preference requirements, and other efforts to increase intermodal efficiency, the availability of a highly skilled maritime workforce, and the reduction of international regulatory barriers that adversely affect the U.S. maritime industry.

Alone, these policies will not meet the challenges that the U.S. maritime industry faces in the 21st Century. Therefore, working in partnership with Congress, the Department of Defense and other stakeholders, we will continually assess those regulations and statutes which impede the growth of the U.S.-flag fleet, the economical operation of U.S.-flag vessels and the employment of American mariners. It will also be our high priority to examine how better to utilize U.S. laws and regulations to promote the construction and operation of U.S.-flag commercial vessels.

The Department looks forward to working with you on the implementation of these policies. An identical letter is being sent to Senator Hollings, Senate Committee on Commerce, Science, and Transportation, and Chairman Spence and Congressman Skelton, House Committee on National Security.

If you have any further questions or comments, please contact me or Steven Palmer, Assistant Secretary for Governmental Affairs, at (202) 366-4573.

Sincerely,

Rodney E. Slater

Enclosure

THE SECRETARY OF TRANSPORTATION
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Chairman, Committee on National Security
U.S. House of Representatives
Washington, DC 20515

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EXECUTIVE SUMMARY

On October 8, 1996, the President signed the Maritime Security Act of 1996 (P.L. 104-239). Section 14 of the Act requires the Secretary of Transportation to submit to Congress a report which describes the Department of Transportation's (DOT) maritime policies over the next five years with respect to:

> *(1) fostering and maintaining a United States merchant marine capable of meeting economic and national security requirements; (2) improving the vitality and competitiveness of the United States merchant marine and the maritime industrial base, including ship repairers, shipbuilders, ship manning, ship operators, and ship suppliers; (3) reversing the precipitous decrease in the number of ships in the United States-flag fleet and the Nation's shipyard and repair capability; (4) stabilizing and eventually increasing the number of mariners available to crew the United States merchant vessels; (5) achieving adequate manning of merchant vessels for national security needs during a mobilization; (6) ensuring that sufficient civil maritime resources will be available to meet defense deployment and essential economic requirements in support of our national security strategy; (7) ensuring that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift requirements in the event of crisis or war; (8) ensuring that international agreements and practices do not place United States maritime industries at an unfair competitive disadvantage in world markets; (9) ensuring that Federal agencies promote, through efficient application of laws and regulations, the readiness of the United States merchant marine and supporting industries; and (10) any other relevant maritime policies.*

The maritime issues and challenges facing the nation are significant and complex. Changes in world political trends and economies, domestic and international public sector budget priorities, and state-of-the-art technologies occur constantly. Despite advances in transportation, the United States continues to depend primarily on oceanborne shipments for its international trade. As the world's largest trading nation, the United States exports and imports about one fourth of global merchandise trade in value annually ($1.6 trillion in 1997). The largest part of this merchandise trade -- one billion tons of cargo -- is moved by water. Another billion tons of cargo is carried in domestic waterborne movements, which serve over 90 percent of the U.S. population. By the year 2020, U.S. foreign trade in goods may grow to four times today's value and almost double its current tonnage, and inland waterways traffic will increase by one-third, based upon current projections.

These shipments move through America's maritime transport system, which encompasses a domestic and international network of navigable ocean, lake, river and inland waterway routes; shipbuilders and operators of a wide range of vessels including containerships, tankers, dry bulk carriers, tugs and barges, and ferries; a complex infrastructure of ports and terminals serving as intermodal points of transfer between the water system and trucks and railroads;, shipyards and an extensive industrial base of suppliers; and a diversified pool of shipboard,

shipyard, longshore, and shoreside workers and skills. These industries, as well as the commercial passenger vessel industry, which currently moves 90 million people per year according to the industry's estimate, are also expected to grow.

Over time, the system has responded to changes in user and societal needs and in economic conditions. As trade and economic pressures have grown, the U.S. maritime industry has responded to accommodate those changes. To keep pace with the coming changes, the United States will need a maritime transportation system that is state-of the art, efficient, and accessible to everyone.

The United States once relied on a huge fleet of relatively small ships to provide the commercial and sealift shipping capacity appropriate for its trade. For example, in 1970 the U.S.-flag privately-owned fleet of large oceangoing vessels consisted of more than 900 general cargo, dry bulk carriers and tankers totaling over 15 million deadweight tons (DWT). In terms of capacity, only four nations had fleets larger than the United States -- the United Kingdom, Norway, Japan, and Liberia. Together, these five nations constituted more than half of the capacity in the 300 million DWT oceangoing world merchant fleet.

At the same time, many nations have been building an international maritime presence as a means of projecting visibility and earning hard currency. These registries may not require the same level of protection for seafarer health, welfare and safety as on U.S.-flag vessels. Moreover, the regulatory framework in several countries, including key U.S. trading partners, may restrict free market access, or otherwise permit discriminatory practices against U.S.-flag vessels in international trade. These regimes enable foreign vessels to operate at lower cost, or with substantial preferential treatment above that provided to U.S.-flag carriers. As a result, the privately-owned U.S.-flag fleet has declined to a rank of 11th in DWT (as of January 1, 1997), and U.S.-flag ships carry only 3.9 percent of U.S. international trade, by weight. Other traditional maritime powers have experienced similar, or even more severe, declines.

Another significant cost disparity that has contributed to the decline of the U.S.-flag fleet is the freedom from taxation available under some foreign or "open" registries. Often, foreign-flag vessel owners do not pay any corporate income taxes on revenues earned in U.S. foreign commerce, and the crews frequently do not pay income taxes to any country. The only U.S. corporate or income taxes paid by foreign-flag owners are taxes paid on their U.S. shore-based facilities and personnel, which in many cases are nonexistent. By comparison, vessels operating under the U.S.-flag are subject to all the taxes and regulatory laws applicable in the United States.

Even though the size of the U.S.-flag fleet has declined in recent years, the productivity of the fleet has improved substantially. In 1995, the U.S.-flag foreign-trade liner fleet carried over 42 percent more cargo than in 1970, but in far fewer (but larger) vessels. The average capacity of liner vessels in the U.S.-flag fleet today is nearly 28,000 DWT, compared to

12,000 DWT in 1970. Fleet productivity has also been enhanced by the development of a more sophisticated network of interrelated, intermodal equipment providing door-to-door transportation. Today's "fleet" includes not only ships and barges, but also containers, chassis, computer-based data systems, rail and truck interchanges, warehouses, piers, cranes, terminals, and most importantly, highly skilled people ashore and at sea. Technological advances have greatly improved the flow of cargo, resulting in virtually seamless movement of goods from origin to destination anywhere in the world. These advances have also been applied to the movement of military shipments and have resulted in significantly improved coordination and speed in the delivery of Department of Defense (DOD) cargoes.

Maritime transportation and America's waterways are an integral link in the intermodal National Transportation System. The waterways serve the national interest in three critical aspects: the economy, national security and safety. As we head into the 21st Century, both our competitive position in the national security arena, and the safety of our maritime community will hinge on how well the United States manages its maritime transportation system, including its ports and waterways. Doing it well will not only be desirable, but imperative, to sustain the U.S. leadership position as the world's economic and military power.

Currently, there are many activities taking place on the waterways by numerous stakeholders. As noted in a recent study by the industry consortium INTERTANKO regarding the current state of U.S. ports and oil terminals, the port infrastructure of the United States is being pushed to the limits of its capability with major renewal investment decisions on the horizon. In the container trade alone, there has been enormous growth in the size of ships as owners seek to reduce operating costs. In 1995, 35 percent of containerships calling U.S. ports exceeded 4,000 twenty-foot equivalent units (TEUs). By 2010, over 60 percent of the containerships in U.S. international trade will exceed this carrying capacity. Yet inadequate channels and anchorages abound.

Effective management of the U.S. marine transportation system has become an increasingly important national concern. Currently, the responsibilities for managing these activities are divided among many federal agencies, the states, port authorities, and the private sector. In March 1998, DOT introduced its initiative on the current state and future needs of our waterways, ports, and their intermodal connectors. The effort will focus individual Federal, state, and local waterway-related and -connected services in a coordinated, systematic approach. DOT participants -- the U.S. Coast Guard (USCG), the Federal Highway Administration, the Federal Railroad Administration, and the Maritime Administration (MARAD) -- are working in partnership with other Federal Agencies such as the U.S. Army Corps of Engineers, the Environmental Protection Agency, and the National Oceanic and Atmospheric Administration, and industry.

Growing instability and threats for increased acts of terrorism, both at home and abroad, have also renewed longtime cooperative relationships between involved parties for ensuring the

safety, security and integrity of our interlinked transportation network. Since the passage of the Espionage Act of 1917, the USCG has been responsible for the security of U.S. ports. In World Wars I and II, the USCG performed port security duties and, in 1950, it was made a permanent program. Through subsequent legislative and executive orders, including the Magnuson Act of 1950, the Ports and Waterways Safety Act of 1972, and associated Executive Orders, the USCG's port safety and security responsibilities have expanded to include the safeguarding of ports, harbors, vessels and waterfront facilities from accidents, negligence, terrorism, and sabotage.

Depending on the particular crisis or situation, security and defense of our Nation's ports and waterways involves several organizations which are responsible for different aspects of port safety, security and harbor defense. These organizations include: state and local law enforcement agencies, the Federal Bureau of Investigation, the Department of State, DOD and MARAD.

Within DOT, MARAD and the USCG have primary responsibility for ensuring the availability of an efficient maritime transportation system to American shippers and consumers in peacetime as well as during national emergencies. In accordance with existing Federal mandates, MARAD and the USCG, as well as other federal agencies such as the U.S. Army Corps of Engineers, administer maritime-related programs, which are directed to achieve the policy objectives identified by Congress. MARAD's programs, guided by Congressional mandates, are:

- Maritime Security Program
- Voluntary Intermodal Sealift Agreement
- National Shipbuilding Initiative
- Ready Reserve Force
- Emergency Planning Operations
- Port, Intermodal, and Environmental Activities
- International Agreements
- Maritime Labor and Training
- Cargo Preference
- Domestic Shipping
- Maritime Research, Development, and Technology Transfer

The most important maritime policy achievements over the past four years were the enactment of the Maritime Security Act of 1996 and the National Shipbuilding and Shipyard Conversion Act of 1993. The overwhelming bipartisan support in Congress for these maritime revitalization initiatives stands as an affirmation of America's commitment to our Nation's maritime industry and its infrastructure. That commitment must continue unabated. Therefore, over the next five years, it will be DOT policy to support:

- Full funding for the Maritime Security Program;
- Continuation of the National Shipbuilding Initiative;
- Commitment to existing cabotage laws;
- Continued effective management of the Ready Reserve Force by MARAD;
- Enforcement of cargo preference requirements;
- Development of U.S. ports and waterways to high standards of safety, efficiency, and environmental soundness that balance the needs of industry with other public uses;
- Intermodal initiatives to increase the efficiency and safety of intermodal freight transportation;
- Elimination of unfair foreign trade practices;
- Conformance of U.S. and foreign regulatory and environmental standards;
- A highly skilled and appropriately sized maritime workforce; and,
- Greater use of public-private partnerships to develop and implement advanced maritime technologies.

Alone, these policies will not meet the challenges that the U.S. maritime industry faces in the 21st Century. Therefore, working in partnership with Congress, DOD and other stakeholders, we will continually assess those regulations and statutes which impede the growth of the U.S.-flag fleet, the economical operation of U.S.-flag vessels and the employment of American mariners. It will also be our high priority to examine how better to utilize U.S. laws and regulations to promote the construction and operation of U.S.-flag commercial vessels.

I. INTRODUCTION

On October 8, 1996, the President signed the Maritime Security Act of 1996 (P.L. 104-239). Section 14 of the Act requires the Secretary of Transportation to submit to Congress a report which describes how the Department of Transportation (DOT) will implement the following maritime policies over the next five years:

1. Foster and maintain a United States merchant marine capable of meeting economic and national security requirements.

2. Improve the vitality and competitiveness of the United States merchant marine and the maritime industrial base, including ship repairers, shipbuilders, ship manning, ship operators, and ship suppliers.

3. Reverse the precipitous decrease in the number of ships in the United States-flag fleet and the Nation's shipyard and repair capability.

4. Stabilize and eventually increase the number of mariners available to crew the United States merchant vessels.

5. Achieve adequate manning of merchant vessels for national security needs during a mobilization.

6. Ensure that sufficient civil maritime resources will be available to meet defense deployment and essential economic requirements in support of our national security strategy.

7. Ensure that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift requirements in the event of crisis or war.

8. Ensure that international agreements and practices do not place United States maritime industries at an unfair competitive disadvantage in world markets.

9. Ensure that Federal agencies promote, through efficient application of laws and regulations, the readiness of the United States merchant marine and supporting industries.

10. Other relevant maritime policies.

This report discusses how Federal maritime programs that have been developed to promote a strong U.S. maritime industry and to foster an efficient transportation system nationwide are helping to meet each of the objectives identified by Congress, and identifies DOT's maritime policy focus over the next five years.

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II. OVERVIEW OF FEDERAL MARITIME POLICIES

America is a maritime nation. Federal interest in the U.S. maritime industry has existed since the formation of the Union. The American shipping and shipbuilding industries trace their roots to the very beginnings of our country, playing key roles in transforming an emerging nation into the world's greatest power.

The U.S. maritime industry continues to be a vital component of the international and domestic transportation system of our Nation. The nature of Federal interest in the U.S. maritime industry is defined in the Declaration of Policy in the Merchant Marine Act, 1936, which states:

> *... the United States shall have a merchant marine (a) sufficient to carry its domestic waterborne commerce and a substantial portion of the waterborne export and import commerce of the United States and to provide shipping service essential to maintaining the flow of such domestic and foreign waterborne commerce at all times, (b) capable of serving as a naval and military auxiliary in time of war or national emergency, (c) owned and operated under the U.S.-flag by citizens of the U.S. insofar as possible, (d) composed of the best equipped, safest and most suitable types of vessels, constructed in the U.S. and manned with trained, efficient citizen personnel, and (e) supplemented by efficient facilities for shipbuilding and ship repair.*

The maritime issues and challenges facing the nation are significant and complex. Changes in world political trends and economies, domestic and international public sector budget priorities, and state-of-the-art technologies occur constantly. Despite advances in transportation, the United States continues to depend primarily on oceanborne shipments for its international trade. As the world's largest trading nation, the United States exports and imports about one fourth of global merchandise trade in value annually ($1.6 trillion in 1997). The largest part of this merchandise trade -- one billion tons of cargo -- is moved by water. Another billion tons of cargo is carried in domestic waterborne movements, which serve over 90 percent of the U.S. population. By the year 2020, U.S. foreign trade in goods may grow to four times today's value and almost double its current tonnage, and inland waterways traffic will increase by one-third, based upon current projections.

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At the same time, many nations have been building an international maritime presence as a means of projecting visibility and earning hard currency. These registries may not require the same level of protection for seafarer health, welfare and safety as on U.S.-flag vessels. Moreover, the regulatory framework in several countries, including key U.S. trading partners, may restrict free market access, or otherwise permit discriminatory practices against U.S.-flag vessels in international trade. These regimes enable foreign vessels to operate at lower cost, or with substantial preferential treatment above that provided to U.S.-flag carriers. As a result, the privately-owned U.S.-flag fleet has declined to a rank of 11th in DWT (as of January 1, 1997), and U.S.-flag ships carry only 3.9 percent of U.S. international trade, by weight. Other traditional maritime powers have experienced similar, or even more severe, declines.

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efficient crews of 21 seafarers. Technological advances in ship design and operation, many of which -- like containerization -- were introduced by American shipping companies, have greatly improved the flow of cargo, resulting in virtually seamless movement of goods from origin to destination anywhere in the world. Today's "fleet" includes not only ships, but also containers, chassis, computer-based data systems, rail and truck interchanges, warehouses, piers, cranes, terminals, and most importantly, highly skilled people ashore and at sea. These assets -- located throughout the world -- are available to support military operations at any time.

Maritime transportation and America's waterways are an integral link in the intermodal National Transportation System. The waterways serve the national interest in three critical aspects: the economy, national security and safety. As we head into the 21st Century, both our competitive position in the national security arena, and the safety of our maritime community will hinge on how well the United States manages its maritime transportation system, including its ports and waterways. Doing it well will not only be desirable, but imperative to sustain the U.S. leadership position as the world's economic and military power.

Currently, there are many activities taking place on the waterways by numerous stakeholders. As noted in a recent study by the industry consortium INTERTANKO regarding the current state of U.S. ports and oil terminals, the port infrastructure of the United States is being pushed to the limits of its capability with major renewal investment decisions on the horizon. In the container trade alone, there has been enormous growth in the size of ships as owners seek to reduce operating costs. In 1995, 35 percent of containerships calling U.S. ports exceeded 4,000 twenty foot equivalent units (TEUs). By 2010, over 60 percent of the containerships in U.S. international trade will exceed this carrying capacity. Yet inadequate channels and anchorages abound.

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Growing instability and threats for increased acts of terrorism, both at home and abroad, have also renewed long-time cooperative relationships between involved parties for ensuring the safety, security and integrity of our interlinked transportation network. Since the passage of the Espionage Act of 1917, the USCG has been responsible for the security of U.S. ports. In

World Wars I and II, the USCG performed port security duties and, in 1950, it was made a permanent program. Through subsequent legislative and executive orders, including the Magnuson Act of 1950, the Ports and Waterways Safety Act of 1972, and associated Executive Orders, the USCG's port safety and security responsibilities have expanded to include the safeguarding of ports, harbors, vessels and waterfront facilities from accidents, negligence, terrorism, and sabotage.

Depending on the particular crisis or situation, security and defense of our Nation's ports and waterways involves several organizations which are responsible for different aspects of port safety, security and harbor defense. These organizations include: state and local law enforcement agencies, the Federal Bureau of Investigation, the Department of State, Department of Defense (DOD) and MARAD.

In coordination with various stakeholders, MARAD and the USCG in varying and complementary capacities, ensure the access and availability of our marine transportation highway to American shippers and consumers in peacetime as well as during national emergencies. To achieve this mission, MARAD has traditionally focused on ship operations (both commercial and defense related) and shipbuilding. The USCG, under the auspices of the Ports and Waterways Safety Act of 1972 and other legislative and executive directives, has facilitated the safe and efficient loading and transport of cargo on our Nation's inland and coastal waterways. Both agencies support maritime education and training programs, individually and in partnership with industry and international maritime interests.

With the end of the Cold War, and increasing competitiveness and unpredictability of a more complex, globally integrated economy, the overarching missions and strategic goals of MARAD and the USCG have kept pace. Collectively, the missions and goals of MARAD and the USCG are the results of mandates from both Congress and the Administration. To respond to shifts in customer needs, as well as domestic and international policy objectives and available funding levels, MARAD has adjusted, where appropriate, the scope and direction of its programs. Today, MARAD's mission also focuses on logistics, the environment, ports and intermodalism, safety, advanced technology, and international trade practices. MARAD also supports the USCG's efforts and shared interests in these areas.

During the coming five years, the Department will strive to achieve the policy objectives identified by Congress, which are embodied in their respective MARAD and USCG strategic goals, through the following programs:

DEPARTMENT OF TRANSPORTATION STRATEGIC GOALS: Safety; Mobility; Economic Growth and Trade; Human and Natural Environment; and National Security.

USCG Strategic Goal: Mobility, Safety.
Business Areas: Port Safety and Security; Waterways Management; Ice Operations; Marine Science Activities; Marine Licensing; and Vessel Traffic Management.

MARAD Strategic Goal: Efficient and effective intermodal transportation and logistics system.
Programs: Maritime Security Program (MSP); Voluntary Intermodal Sealift Agreement (VISA); Port, Intermodal, and Environmental Activities; International Activities; and Maritime Research, Development, and Technology Transfer.

MARAD Strategic Goal: Competitive merchant marine in domestic and international commerce.
Programs: MSP; VISA; International Activities; Cargo Preference; Domestic Shipping; and Maritime Research, Development, and Technology Transfer.

MARAD Strategic Goal: Globally competitive U.S. shipbuilding and repair industry, and supplier base.
Programs: National Shipbuilding Initiative; Port, Intermodal, and Environmental Activities; International Activities; and Maritime Research, Development, and Technology Transfer.

MARAD Strategic Goal: Intermodal sealift capability to support vital national security interests.
Programs: MSP; VISA; Ready Reserve Force; U.S. Merchant Marine Academy; State Maritime Academies; Port, Intermodal, and Environmental Activities; Cargo Preference; Domestic Shipping; and Maritime Research, Development, and Technology Transfer.

USCG Strategic Goals: Maritime Security, National Defense, Protection of Natural Resources.
Business Areas: Port Safety and Security; Defense Operations; Law Enforcement; Marine Environmental Protection; and Defense Readiness.

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III. SPECIFIC MARITIME PROGRAMS TO ACHIEVE THE POLICY OBJECTIVES IDENTIFIED BY CONGRESS

The programs that MARAD and the USCG administer reflect the Federal Government's commitment that the United States maintain a commercial maritime industry to meet the economic and national security needs of our Nation. Each program is primarily directed at a specific segment of the industry -- for example, ship operators, shipbuilding and repair facilities, maritime labor, and ports -- since no single Federal maritime program by itself can achieve all of the goals established by Congress.

Some of the programs entail direct and indirect Federal assistance to U.S.-flag ship operators and shipyards to partially offset the higher costs that U.S. industries incur vis-à-vis their foreign competitors: wages and benefits that reflect our high American standard of living, U.S. employment and income taxes, and the costs associated with high safety, environmental protection, and training standards. These programs will help the maritime industry to maintain its core capabilities. However, disparities will remain.

The following presents an overview of MARAD's ongoing programs, including a discussion of how they achieve the policy objectives identified by Congress.

A. Maritime Security Program/Voluntary Intermodal Sealift Agreement

1. Background

The continued existence of a privately owned U.S.-flag merchant marine is vital to our Nation's military and economic security. During times of national emergency, there is no completely reliable alternative to our U.S.-flag fleet of commercial ships and trained crews. Nearly 80 percent of the military dry cargo transported during the Persian Gulf conflict was carried on U.S.-flag ships, and over 30 percent was carried on commercial U.S.-flag ships as part of normal liner operations or under time-charter to the Department of Defense (DOD), with no disruption to commercial service. All of the U.S.-flag ships utilized by DOD during the sealift operations were 100 percent crewed by U.S. citizen seafarers.

The economic security of our Nation benefits from the participation of the U.S.-flag fleet in the movement of U.S. international trade. Without a U.S.-flag fleet, the United States -- the largest market in the world -- as well as the thousands of U.S. importers and exporters would become entirely dependent on foreign entities for transportation. The presence of a privately owned, U.S.-flag fleet provides an alternative to foreign-flag carriers, some of which are government-owned or controlled or have close affiliations with firms in their own countries who compete with U.S. businesses.

In recognition of the need to foster a strong and competitive U.S. merchant marine, the Administration and Congress proposed legislation to revitalize the U.S. merchant marine. The 104th Congress enacted maritime revitalization legislation by substantial majorities in both the House of Representatives and the Senate. The Maritime Security Act (P.L. 104-239) established the Maritime Security Program (MSP) under Title VI, Subtitle B, of the Merchant Marine Act of 1936. The MSP is intended to ensure that an active U.S. merchant fleet, and the trained personnel needed to operate both active and reserve vessels, will be available to meet national security requirements for sealift capacity. Participants in the MSP will also provide intermodal shipping services/systems, including ships, cargo-carrying capacity, intermodal equipment, and related management services to DOD to support the emergency deployment and sustainment of U.S. military forces through the Voluntary Intermodal Sealift Agreement (VISA). By assuring the continuation of a fleet of liner vessels in international trade operating under the U.S.-flag, the MSP will maintain America's continued presence in international commerce. Thus, this program provides a competitive bulwark against predatory pricing by foreign carriers in the movement of U.S. import and export commerce.

Congress established funding levels for this new program at fixed amounts well below what was already being paid by operating-differential subsidy (ODS) to U.S.-flag carriers as the differential in operating costs between U.S.-flag ships and foreign-flag competitors. This reduced support challenges U.S.-flag operators to lower their operating costs and become more competitive. The 20-year average cost of the ODS program from FY 1977 to the present, in 1997 dollars, has been approximately $3.9 million per ship per year. By comparison, funding for MSP is capped at a total of $2.3 million per ship in FY 1996 and $2.1 million for fiscal years 1997 through 2005. MSP funding does not factor for inflation. In addition, the MSP does not contain the burdensome regulations concerning business decisions that were present in the ODS program; as a result, companies are free to pursue trade opportunities based on competitive factors.

Significantly, the MSP and VISA accomplish the goal of providing intermodal transportation capability for the Nation's military and economic security.

Over the next 10 years, the MSP will help fulfill the shared Administration and Congressional goals to:

- Foster and maintain a United States merchant marine capable of meeting economic and national security requirements;
- Improve the vitality and competitiveness of the United States foreign-trade liner fleet and the seafarers who serve on board the ships;
- Reverse the precipitous decrease in the number of ships in the United States-flag fleet;

- Stabilize the number of mariners available to crew United States merchant vessels;

- Achieve adequate manning of merchant vessels for national security needs during a mobilization;

- Ensure that sufficient civil maritime resources will be available to meet defense deployment and essential economic requirements in support of our national security strategy; and,

- Ensure that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift requirements in the event of crisis or war.

2. Program Description

The MSP will assist in maintaining a U.S.-flag general cargo fleet crewed by U.S. citizens to serve both the commercial and national security needs of the United States, thus advancing the capabilities of the U.S. maritime industry to provide total logistical support to the military services during war or national emergencies. MARAD, DOD, and the industry worked in partnership in developing this program to maximize the use of commercial intermodal systems to effectively meet DOD's sealift requirements. U.S.-flag ships entering the MSP must be 15 years of age or less; for Lighter Aboard Ships (LASHs), the age requirement is 25 years or less, unless this requirement is waived by MARAD, in consultation with the Secretary of Defense. Eligible vessels include commercially and militarily useful general cargo ships, as determined by the Secretary of Transportation. MARAD requested applications for qualified vessels to participate in the Maritime Security Fleet after the implementing legislation was signed by the President. There are currently 10 U.S.-flag carriers with MSP Operating Agreements for a total of 47 vessels.

The vessels enrolled in the MSP, which were selected by MARAD in consultation with DOD, include the most modern, highly automated and technologically advanced diesel-powered ships in the U.S.-flag fleet, as well as five steam-powered LASHs. Hence, the expertise of seafarers working on board ships enrolled in the MSP will provide a direct match, or near match, with the skills needed to crew the newer Reduced Operating Status (ROS) and prepositioning ships in the DOD organic fleet as well as the older steam-powered vessels in the Ready Reserve Force (RRF). Without the MSP fleet, the size of the active seafaring labor pool would be substantially smaller and of a less advanced skill base, and DOD and MARAD would likely have some difficulty in filling all of the necessary manpower or crew billets during a crisis.

Participants in MSP are required to enroll their ships in the VISA program to provide intermodal sealift support to DOD, in time of war, national emergency, or whenever the Secretary of Defense determines it is necessary for national security. This will enable DOD to

secure space to transport military supplies and equipment. Under the terms of VISA, the carriers are required to commit a portion of their intermodal sealift capacity to DOD; MSP participants are required to commit 100 percent of the capacity of enrolled vessels along with the proportionate amount of their total transportation resources. VISA provides DOD with guaranteed access to the shipping companies' $8 billion worldwide intermodal network, including vessels, trains, trucks, cargo handling equipment, cargo tracking and control systems, and traffic and logistics management services. Instead of seeking to replace, overlay and direct the utilization of those resources with government-owned or requisitioned resources -- something that is impractical, unrealistic and costly -- VISA contemplates a fully coordinated effort among all the parties built upon joint planning, prior negotiation of terms and conditions and exercises to ensure that if and when we need worldwide intermodal transportation, it will be there with no questions asked or time lost. In return, the carriers are able to rationalize capacity and pool resources, which will provide the carriers with a more predictable and stable business environment. Further, DOD will extend preferential treatment to participating shipowners when military cargoes are assigned in peacetime.

3. Recent Accomplishments

The Maritime Security Act required MSP contracts to be awarded within 90 days of the receipt of applications. This start-up phase has been fully accomplished; contracts were signed for 47 vessels in December 1996 and January 1997. The statute allows carriers up to one year to bring the vessels into the MSP, or upon the expiration of existing operating-differential subsidy contracts or DOD charters.

MARAD's partnership with the U.S. Transportation Command (USTRANSCOM) and industry to implement the VISA program is also moving forward. The Secretary of Defense approved VISA as a Sealift Readiness Program and as an Emergency Preparedness Program on January 30, 1997, and all major U.S. liner carriers in domestic and international trade (with more than 90 percent of U.S.-flag commercial liner shipping capacity) are enrolled in the program and its Joint Planning Advisory Group (JPAG) co-chaired by MARAD and USTRANSCOM. MARAD, DOD and the carriers are currently developing contractual arrangements for carrying DOD cargoes in contingencies, and VISA is expected to be fully implemented during FY 1998.

B. National Shipbuilding Initiative

1. Background

Historically, U.S. shipyards have built some of the finest commercial and Naval ships in the world. With the end of funding for the Federal commercial ship construction-differential subsidy (CDS) program in 1981, however, U.S. commercial shipbuilding of large oceangoing vessels in international trade virtually ceased. An ambitious Navy shipbuilding program in the 1980s provided a temporary offset to the loss of commercial shipbuilding opportunities for

American shipyards, but that program was reduced significantly in the early 1990s with the end of the Cold War.

Like other industries which had depended upon defense contracting, major U.S. shipyards needed to transition to commercial production while maintaining a U.S. shipbuilding capability sufficient for national and economic security. The international commercial market offered an attractive prospect for this transition.

Three major barriers impeded the U.S. shipbuilding industry from competing in the international market. Many foreign shipyards received, and still receive, substantial direct and indirect shipbuilding subsidies. In addition, foreign shipyards benefited from economies of scale and learning efficiencies derived through series production of standardized vessels, recently updated and more automated commercial shipbuilding processes and procedures, and an established base of marine suppliers. Lastly, having concentrated on the construction of complex Naval vessels for over a decade, many of America's largest U.S. shipyards lacked the equipment and expertise needed to design and cheaply mass produce large, standardized and less complex oceangoing ships used in today's international commercial markets.

The catalyst to revitalize America's shipbuilding industry was the President's Report to Congress, "Strengthening America's Shipyards: A Plan for Competing in the International Market." That report, along with the National Shipbuilding and Shipyard Conversion Act of 1993, became the foundation of the National Shipbuilding Initiative (NSI). The goal of this Federal effort is to assist U.S. shipbuilders, repairers, and marine equipment suppliers to achieve global competitiveness and increase output so that they remain effective partners in supporting national security. Through the NSI, Federal support of American shipyards and suppliers works to meet the following statutory objectives:

- Improve the vitality and competitiveness of the United States maritime industrial base, including ship repairers, shipbuilders, and ship suppliers;
- Reverse the precipitous decrease in the number of ships in the United States-flag fleet and the Nation's shipyard and repair capability; and,
- Ensure that Federal agencies promote, through efficient application of laws and regulations, the readiness of the United States merchant marine and supporting industries.

2. Program Description

The NSI is a comprehensive plan focused on revitalizing the U.S. shipbuilding industry. While MARAD is the only Federal partner with an interest in each of the program areas, other agencies also have moved vigorously to provide appropriate support. NSI program objectives include:

Improving Competitiveness: Through MARITECH, a five-year program of matching funds, the Federal Government has been encouraging the shipbuilding industry to direct and lead the development and application of modern processes, procedures, and technology to improve the industry's competitiveness and to preserve its industrial base. MARAD, in partnership with the Defense Advanced Research Projects Agency, is supporting the U.S. shipbuilding industry in that effort as well as the industry's effort to develop commercially competitive vessel designs and marketing strategies. Using streamlined acquisition procedures, MARAD is implementing cost-shared, industry-initiated research and development projects under the sponsorship of DOD to accelerate the U.S. shipbuilding industry's reentry into the international commercial arena through FY 1998, its fifth year. The U.S. Navy has identified funding to continue this program into FY 1999.

MARAD established a National Maritime Resource and Education Center (NMREC) to assist the U.S. shipbuilding and allied industries in improving their competitiveness in international commercial markets by offering a central source of information, expertise, and reference materials on commercial shipbuilding, as well as by providing technical expertise and oversight in the administration of the industry-led MARITECH projects. NMREC provides an important centralized resource to assist U.S. shipyards in their transition from military to commercial shipbuilding.

Financing Ship Sales through Title XI Guarantees: While the U.S. Government no longer offers vessel construction subsidies like many other shipbuilding nations, the Maritime Guaranteed Loan (Title XI) program -- which is authorized under the Merchant Marine Act of 1936 (as amended) and administered by MARAD -- assists the U.S. shipbuilding and repair industry in developing and obtaining the financing often critical to attracting domestic and foreign buyers. Under the NSI, Federal guarantees of commercial shipbuilding loans have been extended to qualified vessels being constructed in the United States for the export market, and to U.S. shipyards for modernization and improvement projects. Since 1993, the Title XI program has guaranteed 53 ship construction and 6 shipyard modernization projects for a total investment of $2.8 billion, and a guaranteed amount of $2.1 billion. MARAD has streamlined procedures to reduce administrative burdens, without increasing the risk of the program.

Assisting International Marketing: The expansion of private sector efforts to market U.S.-built ships internationally is a key element of the NSI. MARAD facilitates business development efforts by the U.S. shipbuilding, repair, and marine supplier industries through outreach programs, participation in global shipbuilding conferences, obtaining and supplying market data, and providing Government advocacy as needed. In addition, MARAD and the industry work through the Departments of State and Commerce, both here and in embassies located abroad, to identify opportunities for cooperative arrangements between U.S. and foreign shipbuilders.

Ensuring Fair International Competition: In the early 1990s, the international maritime community recognized that the massive direct and indirect shipyard subsidies offered by several countries to support their domestic shipbuilding industries were distorting the world shipbuilding market. These subsidies permitted certain foreign shipyards to offer prices far below cost and diverted orders from shipyards in other nations. A multilateral agreement to eliminate trade-distorting practices and establish common rules for government-supported ship financing programs in the international shipbuilding industry was negotiated under the auspices of the Organization for Economic Cooperation and Development (OECD). The agreement was signed in December 1994 by the United States and the world's other key shipbuilding nations, including Japan, Korea, the European Union, and Norway. Congress must enact legislation before the Agreement can enter into force for the United States.

MARAD is the key technical advisor to the U.S. Trade Representative (USTR) on the OECD agreement. Upon ratification of an agreement, MARAD will assist in implementing and monitoring compliance by signatory countries.

3. Recent Accomplishments

Since implementation of the NSI and the public-private partnership to revitalize the U.S. shipbuilding industry, significant progress has been achieved in expanding the ship construction orderbook, improving the productivity of U.S. shipyards, and providing relevant business and technical information for industry to use.

- Now in its fifth year, MARITECH has generated 36 new commercial ship designs, supported technology transfer from shipyards in foreign countries, and engaged more than 200 industry participants from 40 states, the Commonwealth of Puerto Rico, and nine foreign countries. MARAD administers over 60 percent of approved MARITECH projects, now totaling $160 million in Government and industry investment. U.S. shipyards report that their application of new production processes and procedures has reduced the cost of military construction, although quantitative estimates of these benefits are not yet available.

- In FY 1997, MARAD approved 11 applications for Title XI guarantees totaling $330 million, with a combined contract value of $378 million. This included $176 million in foreign orders and two shipyard modernization projects.

  Shipyard modernization projects funded with Title XI will help generate cost savings for both commercial and Navy contracts. For example, a $23 million loan guarantee issued to NASSCO enabled the shipyard to purchase a fourth crane, a new computer system, and a bigger milling machine.

- MARAD's shipyard marketing program paved the way for several U.S. maritime industry companies, some of them for the first time, to participate in the global marketplace. MARAD co-sponsored the American International Shipbuilding Exposition in April 1996 to encourage the export of U.S.-built ships. MARAD also co-sponsored (as a "Partner Country") the 1996 Shipbuilding Machinery and Marine Technology (SMM) conference held in Hamburg, Germany, the world's largest shipyard related exhibition. The SMM attracted 35,000 attendees with exhibits from companies representing 33 countries. MARAD's efforts led to an increase in U.S. company participation from four in 1994 to 100 in 1996, publicizing the re-entry of American industry as active competitors in the large international commercial shipbuilding market. The majority of U.S. exhibitors indicated that they expect to conclude business as a result of contacts made during the SMM exhibition.

C. Ready Reserve Force

1. Background

Sealift is essential to execute this country's forward defense strategy and to maintain a wartime economy. America's national sealift objective is to ensure that sufficient military and civil maritime resources will be available to meet defense deployment and essential civilian economy requirements in support of our national security strategy. During national emergencies, there must be adequate sealift available on a timely basis to support deployment and sustainment of U.S. military forces.

The Ready Reserve Force (RRF) is critical to ensuring that our Nation maintains the surge capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift requirements in the event of crisis or war, one of the policy objectives identified by Congress. As one of the key sources of DOD's strategic sealift capability, the RRF is sized and configured to meet DOD's requirements for specific ship types and specially outfitted support ships to carry heavy and outsize military cargoes such as helicopters, tanks and heavy weapons that cannot fit into the containerships that predominate in today's commercial general cargo fleet. The RRF assures the availability of quick-response shipping to support the rapid deployment of U.S. military forces and initial resupply anywhere in the world during the early stages of deployment before a sufficient number of commercial ships can be marshaled.

All reserve vessels require licensed and unlicensed U.S.-citizen seafarers to become operational. Merchant mariners employed on ships enrolled in the MSP and on ships employed in domestic deep sea trade provide the core job skills needed to crew the newer RRF vessels, as well as the maritime prepositioning ships and other vessels in the DOD organic fleet. Without this labor pool, it is unlikely that sufficient qualified U.S.-citizen seafarers would be available to crew RRF ships needed in an emergency.

2. Program Description

The RRF, established in 1976, currently consists of 96 vessels including:

Composition of RRF Fleet
October 1997

Ship Type	Number
Breakbulk	34
RO/RO	31
Tankers	10
Crane ships	10
Barge carriers	4
Heavy lift	3
Troopships	2
T-AVB*	2
Total	96

* Special Purpose Aviation Logistics Support Ships

The ships are kept by MARAD in designated states-of-readiness (as determined by DOD) to enable them to be activated in 4, 5, 10 or 20 days to meet military, surge sealift requirements in the event of war, as experienced in Operations DESERT SHIELD/DESERT STORM. To respond quickly to military emergencies in any worldwide geographic area, RRF vessels in higher states-of-readiness are outported in domestic loading ports with a reduced crew on board. Vessels in 10- or 20-day readiness are laid up in one of the National Defense Reserve Fleet sites located in James River, VA; Beaumont, TX; and Suisun Bay, CA. Once RRF vessels are activated in support of a DOD exercise or operation, they come under the operational control of the Military Sealift Command (MSC).

MARAD manages the RRF for DOD through contracts with Ship Managers and General Agents who are responsible for activating, maintaining, manning, operating, and deactivating the ships. MARAD's objectives are to improve the capability and efficiency of the RRF, and to enhance the ability of the U.S. shipbuilding and repair industry to activate ships in the Reserve Fleet. The objectives are accomplished through the following major program activities:

- **Test activations.** These involve the periodic breakout and sea trials of RRF vessels, along with no-notice test activations sponsored by DOD to verify the material condition of the ships and to assure the successful activation of RRF ships during actual emergencies. These tests enable MARAD to make timely maintenance decisions and repairs and to better allocate resources. Periodic

maintenance activations are also a valuable training experience for the crews on board the RRF vessels.

- **Monitoring Maintenance and Repair Requirements.** Using a MARAD-developed tracking system, repair crews are able to assess more accurately the material condition of vessels in the fleet and anticipate maintenance requirements. Accurate tracking of vessel deficiencies permits more efficient use of maintenance funding, increases awareness of vessel readiness, and facilitates periodic inspections of the ships for compliance with marine safety regulations.

- **Timely Delivery.** The highest priority RRF ships are berthed near expected loading ports to enhance their surge utilization. During the early phase of an emergency deployment, timely delivery of RRF ships to their port of embarkation is often critical to the success of the operation. To maintain these ships at an appropriate state-of-readiness, MARAD, through its Ship Managers and General Agents, maintains small crews on board RRF vessels assigned 4- and 5-day readiness status. These crews conduct preventive maintenance year-round and have all of the core skills needed to activate RRF vessels at their berth sites without shipyard assistance. These crews also sail with their ships upon activation, thus facilitating timely deployment and crewing operations.

3. Recent Accomplishments

RRF maintenance and crewing improvements have been implemented, through a joint DOD/MARAD effort, to ensure the timely availability of ships in 4- and 5-day readiness status, after a review of RRF operations during Operation DESERT SHIELD/DESERT STORM indicated that crew availability and ship readiness prevented timely activation of some ships.

Today, the RRF is meeting or exceeding every measure of reliability and performance. During FY 1997, the operational reliability of ships activated from the RRF exceeded 95 percent over more than 3,000 operational days. Further, all of the 11 RRF vessels activated under "no-notice" criteria during the year were available to DOD within assigned time requirements.

In recent years, RRF vessels have provided DOD with needed surge and sustainment sealift during several operations involving United States, North Atlantic Treaty Organization, and United Nations military forces, including:

- **Operations DESERT SHIELD/DESERT STORM/DESERT SORTIE in 1990/91.** MARAD activated 79 RRF vessels to transport urgently needed supplies and materials to the Persian Gulf. Following the cessation of

hostilities, RRF ships participated in the return of military equipment to the United States and overseas facilities.

- **Operation RESTORE HOPE in 1993/94.** Several RRF vessels transported military cargo to Mogadishu, Somalia, in support of the United Nations relief effort, and a RRF troopship was activated to repatriate troops from Somalia.

- **Operation UPHOLD DEMOCRACY in 1994.** Fourteen RRF vessels, mostly in Reduced Operating Status (ROS), were activated to transport military cargo from various U.S. ports to Port-au-Prince, Haiti.

- **Operation QUICK LIFT in 1995.** Two RRF ships were activated to support NATO peacekeeping activities in Bosnia.

- **Operations VIGILANT WARRIOR and VIGILANT SENTINEL in 1995.** Eight RRF vessels supported military operations in the Persian Gulf.

- **Exercise JOINT ENDEAVOR in 1996.** Two RRF vessels were activated to provide logistical support to the British Expeditionary Forces in Croatia.

- **Army Prepositioning.** During the 1990s, as many as eight RRF ships have operated as part of the Army's Warfighting Reserve (AWR-3) prepositioning forces. These ships have attained 99.5 percent operational reliability during more than 10,300 days of operation.

- **Afloat Prepositioning Tankers.** Two RRF Offshore Petroleum Discharge (OPDS) tankers have been permanently assigned overseas in support of DOD activity since Operation DESERT STORM.

D. Emergency Planning Operations

1. Background

During times of war or national emergency, it is essential that commercial and government owned/controlled transportation resources be deployed rapidly and efficiently. MARAD has authority to coordinate U.S. ships, ports, and related services, as necessary, during wartime to support national security objectives, and works to assure that plans are tested and in place to ensure sufficient shipping capacity, supporting infrastructure, emergency communications, and coordination with Federal agencies. The USCG, under Executive Order 12656, develops emergency response plans as a Federal law enforcement agency and as a military service, supporting national mobilization and conducting defensive operations within 200 miles of U.S. coasts in Maritime Defense Zones.

Effective administration of emergency shipping operations is critical to meeting the statutory objectives to:

- Ensure that sufficient commercial maritime resources will be available to meet defense deployment and essential economic requirements in support of the National Security Strategy; and,

- Ensure that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift requirements in the event of crisis or war.

2. Program Description

Emergency planning includes a broad range of activities relating to national defense and national security requirements for shipping, shipbuilding, and infrastructure support in conjunction with DOD, as well as participating in national and international, military and civil mobilization exercises to validate planning and to ensure effective coordination with other agencies and allies.

Accordingly MARAD is engaged in three specific emergency planning areas:

- **NATO Planning Board for Ocean Shipping (PBOS).** NATO shipping plans are developed by PBOS, one of nine NATO planning entities responsible for planning for civil operations in crisis or war. The Maritime Administrator is Chairman of PBOS.

- **National Shipping Authority (NSA).** As the emergency operating arm of MARAD, the NSA is a continuing entity in the Office of the Maritime Administrator, without a distinct structure in peacetime. When activated, the

NSA can acquire and operate ships for defense service, coordinate all shipping engaged in U.S. commerce, coordinate port services for defense and commerce, and administer the U.S. Government War Risk Insurance program.

- **War Risk Insurance.** MARAD administers the standby emergency War Risk Insurance program in accordance with the statutory authority of Title XII of the Merchant Marine Act, 1936, as amended. The program provides emergency insurance for vessels during conflicts when commercial vessel insurance cannot be obtained at reasonable rates and terms. The program protects vessel operators and seafarers against losses resulting from war or warlike actions.

- **Captains of the Port.** Under the authority granted to the USCG, local Captains of the Port (COTP) develop contingency plans and safeguard lives, property, and the environment. Working with other Federal agencies, functions of the COTPs include: port physical security, port access control, port readiness and contingency planning, intelligence and threat assessments, and prevention of terrorism and civil disturbance.

3. Recent Accomplishments

MARAD wrote War Risk Insurance on 388 vessels during Operations DESERT SHIELD/DESERT STORM, 34 vessels for Operation RESTORE HOPE in Somalia and 15 vessels for Operation UPHOLD DEMOCRACY in Haiti. As a result, these ships were able to provide critically needed materiel to support U.S. military forces. DOD estimated that $436 million in marine insurance premiums were saved during DESERT SHIELD/DESERT STORM through the use of the War Risk Insurance program. Most recently, for Operation DESERT THUNDER in Iraq, MARAD had written War Risk Insurance for two vessels by March 18, 1998, resulting in a combined savings of $76,000 in marine insurance premiums thus far.

Periodic training exercises allow MARAD to maintain a high state-of-readiness for activating the NSA in the event of a crisis. As a result of these exercises, MARAD has streamlined the acquisition of commercial vessels and the activation of RRF ships during sealift operations.

Most recently, the USCG provided vessel boarding teams, port security units (PSU), law enforcement detachment teams (e.g., on board U.S. Navy vessels), and advisors for the Persian Gulf War, and deployed PSU as well as supported vessel traffic control for Operation UPHOLD DEMOCRACY in Haiti.

E. Port, Intermodal, and Environmental Activities

1. Background

Port and intermodal facilities and operations provide the critical interface between the water and surface modes of transportation, handling U.S. domestic and foreign trade as well as military cargoes. As shipper demand for cost-effective, door-to-door intermodal services has grown, U.S. liner shipping companies have evolved into intermodal transportation providers that integrate water, rail, and trucking services to move freight seamlessly and efficiently nationwide and throughout the world. These companies have not only made substantial investments in modern containerships, but also in state-of-the-art container terminals, double-stack trains, modern cargo handling systems, trucking operations, and automated equipment and cargo identification technology to support just-in-time production and other management practices that reduce total logistics costs.

DOD logisticians are also becoming more reliant on commercial intermodal transportation and containerization for military shipments, in concert with changing national defense strategy and the post-Cold War downsizing of the U.S. military. DOD is seeking the same benefits as commercial shippers, including lower transportation costs and transit times, in-transit visibility, greater cargo security, and less cargo damage.

While working to anticipate and to respond effectively to customers' growing transportation demands, the maritime industry is also bearing greater responsibility for environmental compliance and remediation. Navigable waters often contain endangered fish and wildlife. Preserving the environment requires safe, but often costly, industrial practices by U.S. shipbuilders and ship operators to meet Federal and State environmental standards. The cost of environmental compliance often places the U.S. maritime industry at a competitive disadvantage vis-à-vis foreign competitors since some standards may not apply universally to U.S. and foreign carriers engaged in U.S. waterborne commerce. In addition, some of our Nation's largest ports face difficult and costly dredging issues that must be resolved if they are to remain competitive with nearby foreign ports in Canada, Mexico, and the Caribbean.

Ports also serve as the critical crossroads for America's foreign trade, most of which is shipped by sea. Valued at over $620 billion in 1996, waterborne foreign commerce has grown to roughly one-tenth the size of America's seven-trillion-plus Gross Domestic Product. Efficient, well-managed ports and waterways help preserve our Nation's economic and military might by allowing an ever growing volume of goods to be moved quickly between water and land.

Yet despite the advent of sophisticated container and cargo handling technology, cargo theft costs industry as much as $10 billion annually for the United States alone. Vessels and cargo containers, moreover, serve as attractive vehicles for terrorism, the transport of illegal

narcotics, international smuggling and trafficking of stolen goods, and the entry of illegal immigrants.

The maritime industry is working with the USCG to control the introduction of nonindigenous aquatic organisms into U.S. waters. Under the National Invasive Species Act of 1996 (P.L. 104-332) (NISA), the USCG's responsibilities for enforcing regulations to prevent the introduction of aquatic nuisances in the Great Lakes and Hudson River were expanded to include all U.S. waters. A voluntary program has been established whereby all U.S. and foreign carriers operating in U.S. waters are requested to manage ballast water when sea conditions assure vessel safety. As the lead regulatory agency for ports and waterways safety, the USCG enforces regulations concerning the safe navigation of vessels as well as regulations intended to prevent pollution and environmental hazards from ships. The proper ballast condition of a vessel is essential for safe navigation. Under NISA, the USCG monitors vessel ballast operations and oversees national voluntary guidelines for ballasting ships to prevent the introduction of aquatic alien species into domestic waterways.

While the ballast water program applies to both U.S.- and foreign-flag vessels, other Federal and state environmental protection programs can result in higher operating costs for U.S. shipbuilders and ship operators. Thus, the cost of environmental compliance can place the U.S. maritime industry at a competitive disadvantage relative to foreign competitors.

To assist the industry in meeting these challenges, MARAD and the USCG are working in partnership with the maritime industry and other Federal agencies (including the U.S. Army Corps of Engineers, the Environmental Protection Agency, and USTRANSCOM) to develop national and regional programs and policies with respect to the development and utilization of ports and port facilities, marine-related intermodal transportation systems and advanced cargo handling technologies, and measures to protect the marine environment from ship-generated pollution. MARAD is also pursuing strategies to deter, prevent, and prosecute criminals seeking to exploit the maritime transportation system and its providers and users. The USCG has sought to ensure that loading and transport of cargo along our Nation's inland and coastal waterways is safe and efficient. Targeted towards domestic port and intermodal facilities, as well as water and wildlife resources, these programs meet statutory objectives to:

- Ensure that sufficient civil maritime resources will be available to meet defense deployment and essential economic requirements in support of our national security strategy;

- Ensure that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meets sealift and port requirements in the event of crisis or war; and,

- Implement other relevant maritime policies.

2. Program Description

In cooperation with the U.S. maritime industry and Federal, state, and local governments, MARAD and the USCG have developed a number of programs to facilitate efficient and environmentally-sound intermodal marine transportation within the United States: Technical Assistance, the National Port Readiness Network, Military Intelligence and Security, and the Cargo Handling Cooperative Program.

Technical Assistance and Coordination: A major focus has been on improving landside and waterside access to ports and marine terminals. In addition, MARAD assistance is directed at increasing the efficiency of marine terminal operations and enhancing global competitiveness and defense preparedness through improvements in capital and land use, and the adoption of technologies that improve the overall efficiency of the transportation system.

MARAD also actively supports Coast Guard efforts to shape national and international standards in maritime safety and marine environmental protection issues, assists shipbuilding and ship repair firms in complying with environmental laws and regulations, and assures that operations at MARAD facilities and ship scrapping practices comply with Presidential Executive Orders regarding pollution prevention, recycling, and other environmental issues. Further, MARAD is actively working with other members of the National Dredging Team to resolve differences among participating Federal agencies concerning dredging, and to assist ports and regional dredging teams in resolving dredging and dredged material management problems.

The USCG has established designated local Coast Guard Captains of the Port (COTP) who typically also serve as a designated Federal On Scene Coordinator (OSC) of all government and private "response actions" to pollution incidents that pose a substantial threat to public health or welfare within coastal zones. The OSC is backed up by a National Response Team, Regional Response Teams, Area Committees and Special Teams, and related support entities -- local, State, and Federal.

National Port Readiness Network: MARAD, the USCG, and eight other Federal agencies have established the National Port Readiness network to undertake the planning and coordination needed to ensure the smooth flow of military cargo through commercial port facilities during mobilizations. Formed in February 1985, this network includes national Steering and Working Groups, which are currently chaired by MARAD, as well as local Port Readiness Committees chaired by the local COTP. MARAD is responsible for the prioritized use of ports and related intermodal facilities as part of its emergency planning functions during DOD mobilizations. MARAD also works with DOD to identify port facilities and container and chassis suppliers who can provide needed equipment with minimal disruption of the commercial economy. In addition, MARAD monitors periodic military exercises involving the movement of ammunition and equipment, and works with industry to assure that appropriate commercial equipment is available.

Maritime Intelligence and Security: MARAD works cooperatively with industry and other Federal agencies (including the FBI, the U.S. Customs Service, the Immigration and Naturalization Service, and the State Department) to counteract worldwide security threats to U.S. cargo and vessels. MARAD also publishes a quarterly *Maritime Security* report, disseminates Advisories and Special Warnings to Mariners to warn industry of criminal activity affecting shipping worldwide, and conducts port security training in the United States and abroad to reduce port vulnerability to crime and terrorism.

Cargo Handling Cooperative Program (CHCP): MARAD initiated the CHCP in conjunction with U.S.-flag carriers to develop and test new cargo handling technologies, systems, and methods to increase the productivity of conventional and intermodal cargo handling by U.S. carriers. Since hundreds of millions of dollars are spent on cargo handling annually, even relatively minor productivity improvements (such as an increase in the number of crane lifts per hour) can result in multi-million dollar savings annually. Participants in this consortium include ocean carriers, railroads, port authorities, terminal operators, stevedores, and government entities responsible for marine container transport. The program also has helped to increase the adaptation of commercial intermodal transportation systems and technology for military purposes. For example, this program was directly responsible for the development of the international standard for automatic identification of freight containers (ISO 10374).

Port State Control: More than 8,000 foreign-flag vessels call at U.S. ports annually. The USCG requires these vessels to make repairs when in violation of international standards, such as the International Safety of Life at Sea Convention (SOLAS 48). Regardless of their flag, the USCG aims to eliminate all substandard ships.

3. Recent Accomplishments

Shaping the National Transportation System: In 1995, Congress passed the National Highway System (NHS) Designation Act (Act) which recognizes that major intermodal marine terminals are an important and logical extension of the defense highway network during national emergencies. Subsequently, 240 marine terminals were identified as connectors to the NHS through the cooperative efforts of DOT, the port industry, and state and local governments. (The 240 terminals include 104 connectors identified in the Act and an additional 136 connectors identified by DOT and published in the report "Pulling Together: The National Highway System and Its Connections to Major Intermodal Terminals.")

Intermodal Systems and Technology: Defense and commercial cargo handling efforts have been improved through the CHCP which has just completed its fourteenth year of activities. Defense exercises have shown that containerization of military equipment and materiel for worldwide transport is economically and operationally feasible through use of existing commercial transportation assets. A recent CHCP report concluded, that with proper

management of assets, industry has an adequate inventory of intermodal equipment to meet defense requirements for supporting two major regional conflicts abroad.

Dredging: In December 1994, the Interagency Working Group on the Dredging Process, which was convened by the Secretary of Transportation and chaired by MARAD, completed its Report to the Secretary of Transportation, "The Dredging Process in the United States: An Action Plan for Improvement." The report provides a statement of National Dredging Policy and 18 recommendations for improving the dredging process in the United States, which the participating Federal agencies are now working to implement. As an outgrowth of the Plan, Federal, state, and local officials achieved a breakthrough in the impasse on dredging of the Port of New York/New Jersey.

Military Readiness: Using the framework established by the Port Readiness Network, DOD moved critical sealift and sustainment supplies expeditiously through U.S. ports during Operations DESERT SHIELD/DESERT STORM. Subsequent to the operations, MARAD completed a Container Adequacy study which examines the current and projected inventory of containers worldwide, military container requirements in potential emergencies, and suggestions for assuring the continued availability of intermodal equipment for future contingencies. Further, as chair of the National Port Readiness Network's Steering and Working Groups, MARAD has completed initiatives to improve communications, port assessments, and training to enhance the flow of military cargo and personnel through commercial ports during deployments.

Conveyance of Surplus Federal Property: MARAD administers a Federal surplus real property conveyance program whereby local communities can acquire surplus Federal real property, without charge, to improve port facilities and enhance the flow of transportation. Thus far, MARAD has approved four conveyance applications: the Port of Benton (Richland, WA); Oxnard Harbor District (Port Hueneme, CA); Port of Los Angeles, CA; and the Rhode Island Economic Development Corp. (North Kingstown, RI).

F. International Agreements

1. Background

Several major trading partners of the United States permit restrictive laws and practices that deny U.S.-flag shipping companies and U.S. shipbuilders the opportunity to compete equitably in these markets. For example, in some countries barriers to fair competition prevent U.S. ship operators from establishing branch offices, making it impossible for the operators to solicit, book, and collect payment for cargo. Certain countries prohibit foreign companies from owning and operating container terminals and terminal equipment, or from providing intermodal services such as trucking and rail transport. Although some of these practices are the result of economic and political structures within the host nation and are not directed solely toward U.S. businesses, the effect is to prevent U.S. companies from operating efficiently,

which reduces their competitiveness. In contrast, foreign firms are free to establish full-service shipping operations in our open economy.

Many foreign governments also give substantial direct and indirect subsidies to their national shipyards as a means to foster economic growth and security. These subsidies include direct official support, for instance by the European Community, as well as indirect support, as exemplified by Japan's home credit schemes. Such preferential conditions make it difficult for U.S. shipyards to compete against foreign shipbuilders in the world market.

Federal efforts are required to achieve more equitable treatment for U.S. maritime companies seeking to conduct business abroad. These efforts, which often take months or years of negotiations, support the statutory objective to:

- Ensure that international agreements and practices do not place U.S. maritime industries at an unfair competitive disadvantage in world markets.

2. Program Description

The State Department, USTR, Federal Maritime Commission (FMC), and MARAD are working cooperatively to ensure that international agreements and practices do not place United States maritime industries at an unfair competitive disadvantage in world markets, one of the policy objectives identified by Congress. Indeed, the agencies seek to put American maritime interests on an equal competitive basis with their foreign counterparts.

Conditions overseas requiring Federal intervention are frequently brought to MARAD's attention by U.S.-flag carriers. Often, informal discussions with the foreign government can resolve the issue(s). In more complex situations, the United States may negotiate bilateral maritime agreements. The most frequent issue requiring a maritime agreement concerns fair access by U.S. carriers to cargo being exported from the foreign country. Other issues which have been included in maritime agreements include port access, taxes, and U.S.-flag carriers' access to foreign intermodal transportation networks. Maritime agreements with the People's Republic of China, Russia, Ukraine and Brazil have eliminated numerous barriers that U.S.-flag carriers encountered while doing business in those foreign countries.

MARAD also joins in multilateral discussions under the auspices of the OECD, United Nations, and World Trade Organization (WTO) concerning general economic problems of international transport, global shipping polices and practices, international shipbuilding subsidies, and the impact of national shipping policies on other member nations.

3. Recent Accomplishments

MARAD is continuing efforts to obtain equitable treatment for U.S.-flag carriers in world trade and for the U.S. shipbuilding industry. Recent accomplishments include:

Bilateral Maritime Agreements

- **Renewal of Maritime Agreement with Brazil.** This agreement, signed in May 1996, continues to assure equal access to Brazilian government cargoes for U.S. carriers and underscores the commitment of both countries to liberalize their maritime trade. In 1997, the United States held two consultations with Brazil to protest recently enacted tax benefits for Brazilian carriers that we view as inconsistent with the Agreement. (The tax measures have not yet been implemented.)

- **Understanding with People's Republic of China (PRC).** Discussions were held with PRC maritime officials on renewal of the initial 1988 agreement. In an understanding signed in June 1996, the United States agreed to extend the maritime agreement while Chinese authorities acted to approve licenses for U.S. carriers' container management companies. The current agreement expires on June 15, 1998.

- **Consultations with Japan.** Maritime consultations with Japan in 1996 and 1997 focused on the continued control of most services in Japan's ports by the Japan Harbor Transport Association (JHTA), and the costs to U.S. carriers stemming from the monopolistic manner in which the JHTA allocates these services. After extensive negotiations in October 1997, the Government of Japan provided assurances that it will fully implement during 1998 the meaningful reform of the existing prior consultation system, and will approve applications for issuance of port transportation business licenses to U.S. companies.

- **Negotiations with Russia.** The bilateral maritime agreement with Russia, which expired on October 1, 1997, is continuing under comity and reciprocity until a new agreement can be reached. The major issues of concern to the United States in discussions for a new agreement include U.S. restrictions on Russian merchant vessel access to U.S. ports which have mixed commercial and military facilities, and freight rate filing requirements for Russia's two state-controlled carriers operating in U.S. cross trades. The port access issue is under review by the National Security Council. No new dates have been set to resume negotiations.

Multilateral Agreements

- **Organization for Economic Cooperation and Development.** An OECD Agreement to eliminate shipbuilding subsidies worldwide was signed in 1994. The accord eliminates virtually all direct and indirect subsidies, establishes common rules for government assisted financing, creates an injurious pricing

mechanism to prevent ship dumping, and provides a binding dispute settlement mechanism. The Agreement is expected to help restore the competitiveness of American shipbuilding in the world market, since the accord requires other countries to give up the substantial support they have provided to their yards, while relatively modest changes will be required in our programs. The United States has not ratified the Agreement. Congress must enact legislation before the Agreement can enter into force for the United States. MARAD will continue to work with USTR and other agencies to achieve passage of implementing legislation and will participate in discussions on Agreement issues with the foreign parties.

- **General Agreement on Trade in Services (GATS).** The WTO has been considering improved access to maritime markets. In these negotiations, the U.S. delegation has taken the position that the United States already maintains a high level of access in its maritime sector -- as indicated by the 96 percent of our foreign trade that is carried in foreign-flag vessels -- and needs to maintain its support programs, small as they are, to help assure the availability of national flag tonnage for sealift purposes. After more than two years of extended negotiations in the WTO, delegates from more than fifty maritime nations agreed on June 28, 1996, to suspend any further talks on a maritime agreement until the next round of comprehensive trade negotiations in the WTO, which is scheduled to begin in the year 2000. The decision to suspend the negotiations was strongly supported by MARAD and other members of the U.S. delegation.

- **United Nations Convention on the Law of the Sea.** This 1982 Convention: stabilizes the breadth of the territorial sea at 12 nautical miles; provides innocent and transit passage in territorial seas, straits used for international navigation, and archipelagic sea lanes; and reaffirms the traditional freedoms of navigation and overflight and other internationally lawful uses of the sea. It preserves the right of the U.S. military to use the world's oceans and of U.S.-flag commercial vessels to carry sea-going cargoes among over 122 signatory countries. The United States is the only major maritime power that has not yet ratified this important Convention. DOT supports Administration efforts to attain ratification.

G. Maritime Labor and Training

1. Background

An adequate workforce of merchant mariners trained to operate today's modern, technologically advanced vessels is critical to our Nation's economic and national security needs. The ability of our Nation to carry on its domestic and international waterborne

commerce and successfully implement our national and international policies could be disrupted or impaired without an adequately skilled, knowledgeable, and competent manpower base. Ninety-eight percent or more of the equipment and supplies required for a mobilization effort move by sea; therefore, the United States needs assured access to sealift and cannot rely totally on foreign sources for the success of military initiatives. The success of DOD sealift operations during a crisis clearly depends upon our ability to swiftly and reliably move cargoes to the area of operations on active and reserve U.S.-flag merchant ships crewed by U.S. citizen seafarers.

The importance of labor to our economic growth and national security is reflected in MARAD's goal to foster a sufficient, well-qualified and safety-conscious maritime workforce to serve the Nation's economic and national security needs. Through support of programs to improve the education, training, health, welfare and safety of U.S. citizen seafarers, MARAD is working to ensure the availability of an adequate number of mariners to crew active U.S.-flag commercial vessels during peacetime and in emergencies, as well as RRF ships activated for sealift or humanitarian assistance missions. Complementing other MARAD programs which seek to enlarge employment opportunities for U.S. seafarers, these efforts work toward the statutory objectives to:

- Stabilize the number of mariners available to crew the United States merchant vessels;

- Achieve adequate manning of merchant vessels for national security needs during a mobilization; and,

- Ensure that sufficient civil maritime resources will be available to meet defense deployment and essential economic requirements in support of our national security strategy.

2. Program Description

U.S. Merchant Marine Academy: The U.S. Merchant Marine Academy (USMMA) is recognized worldwide as an outstanding maritime education institution. Approximately 200 licensed officers graduate from the Academy each year. The Federal Government maintains the Academy because it is an integral component of the defense readiness called for in our national security policy, and it is also a declaration that there will be a perpetual source of U.S. merchant marine officers to meet our domestic and international trade requirements.

As a key component of our national security effort, all Academy graduates incur a U.S. Navy Reserve commitment which obligates them to serve in time of war or national emergency if activated. At present, this commitment is eight years. The critical maritime skills developed with their military training and obligations significantly increase our Nation's defense readiness.

Academy graduates also are committed to a five-year maritime service obligation. This requires graduates to obtain a merchant marine officer's license on or before graduation and to maintain the license for at least six years. The service obligation may be satisfied as an officer aboard U.S. merchant ships, or in shoreside maritime or intermodal transportation industry positions if afloat employment is not obtainable. Active military duty also satisfies the obligation.

The Academy has kept its educational program responsive to the needs of America's maritime industry, both in its four-year undergraduate curriculum and with its Continuing Education Program. Over the years, new emphasis has been placed on important emerging areas in the industry, including diesel engine instruction and operator licensing, automatic radar plotting, Global Maritime Distress and Safety Systems (GMDSS), and intermodal transportation systems. The breadth of coursework and hands-on training prepares graduates to become not only merchant mariners, but leaders in the maritime industry.

State Maritime Academies: The six state maritime academies (located in California, Michigan, Maine, Massachusetts, New York and Texas) conduct training and academic programs that yield highly skilled deck and engineering officers for employment in the U.S. merchant marine. In addition to training deck and engineering officers, individual schools specialize in maritime port management, marine sciences, international business, logistics and other maritime-related areas. By authority of the Maritime Education and Training Act of 1980, MARAD provides annual funding for student assistance, schoolship maintenance and repair, and training ship fuel oil (when available) to these six State academies. Qualified students are eligible to receive Student Incentive Payments (SIP) of $3,000 annually for no more than four academic years to offset the cost of uniforms, books, and subsistence for a total Federal program cost of $1.4 million per year. In return, SIP recipients must sail or work in maritime-related employment ashore for three years, accept a commission in the Naval reserve or other reserve component of the U.S. armed forces (making these qualified seafarers available for sealift support), and obtain a U.S. Coast Guard merchant marine officer's license and maintain that license for six years after graduation. Beginning in FY 1999, MARAD is proposing to fund only currently enrolled participants, since there are currently sufficient licensed officers in the workforce to crew the commercial U.S.-flag fleet and to meet initial RRF crewing requirements. This will result in the SIP program being phased out in four years. The USMMA will continue to graduate approximately 200 cadets annually, all of whom are required to join the U.S. Navy reserve if they have not already enlisted for active duty.

MARAD also provides training vessels to the five coastal academies for use in at-sea training and as shoreside laboratories. These training ships are vital to the State Maritime Academy programs to familiarize students with ship systems, and to train students in ship safety, fire fighting, and damage control. The training ships ensure that students are able to gain the practical experience of living and working aboard ship and are able to put to sea more safely.

Other Training: MARAD provides supplemental training for seafarers in critical areas such as marine firefighting, intermodalism, and defense readiness. MARAD-sponsored firefighting training is offered at three locations. Participants include U.S. citizen seafarers and others concerned with maritime fire safety, such as United States Coast Guard personnel and port city professional firefighters.

The National Sealift Training Program for Masters and Chief Mates at the USMMA was developed to improve U.S.-flag strategic sealift support capability and reduce vulnerability to piracy and hostage threats. The course combines the Master Mariners Readiness Course with course modules in Defense Communications and Maritime Security, which integrates defense communications, maritime security and sealift-readiness training.

The MARAD-sponsored "Commercial Intermodal Freight Transportation" course offered at the USMMA provides commercial carrier personnel, military officers and civilians in federal transportation/logistics assignments with in-depth knowledge of intermodal transportation systems and their application to military/contingency logistics.

MARAD and the USCG (through its National Maritime Center's Marine Personnel Division) partner with industry to ensure that industry-sponsored training schools provide appropriate entry-level career-path instruction and sailing for unlicensed mariners, as well as continuing education for experienced licensed and unlicensed personnel to operate the latest shipboard technology. Industry schools provide training in advanced communications such as GMDSS, and implementation of new International Maritime Organization (IMO) standards of training, certification, and watch keeping that apply to all seafarers. MARAD also provides surplus marine equipment to industry-sponsored schools to enhance training and facilitate improvements in instruction.

RRF Crewing: The long-term availability of adequate crewing for a mass breakout of the RRF, as experienced during Operations DESERT SHIELD/DESERT STORM, is a concern. To help assure that a sufficient number of qualified U.S. citizen seafarers are readily available to crew RRF vessels in a contingency, MARAD, in consultation with DOD, has placed crews of 9-10 people on board each vessel in ROS status (56 in FY 1998). These mariners form the core of the full crew upon vessel activation. MARAD is also facilitating public/private partnerships to improve RRF crewing response capability.

3. Recent Accomplishments

Reemployment Rights: Section 10 of the Maritime Security Act provides seafarers with the basic reemployment rights that apply to armed forces reserve personnel in time of war or other national emergency. On February 6, 1997, MARAD published regulations in the *Federal Register* to implement this legislation. The availability of reemployment rights will facilitate the recruitment of civilian American mariners, when needed, to crew U.S. sealift vessels.

Labor Standards: At the 84th Maritime session of the International Labor Organization, a U.S. delegation led by the USCG and MARAD was successful in achieving new labor standards to promote stability in the international seafaring workforce and to eliminate unscrupulous hiring and work practices on commercial ships. In particular, the standards provide for minimum rest hours and maximum work hours which will help reduce shipboard fatigue, a primary factor causing ship incidents. When ratified by respective countries, port states will be empowered to enforce these standards on vessels.

The USCG is taking the lead to insure that the United States is in compliance with amendments to the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW) of 1976, which were adopted by the IMO in July 1995. This code sets standards for work and rest periods, and deals with comprehensive standards for certification and training for both licensed and unlicensed shipboard personnel.

GMDSS Implementation: In order to meet the more stringent IMO GMDSS training standards, MARAD chaired a government/industry committee to develop a GMDSS training course for ships' bridge officers, which has been endorsed by the Coast Guard. The committee is also developing recommendations to the Coast Guard for standardized testing of GMDSS-appropriate skills of deck officers trained in outmoded communications systems.

Mariner Tracking System: The Mariner Tracking System was implemented by the USCG's National Maritime Center, in coordination with MARAD, to collect names and contact information voluntarily from mariners. This information will help MARAD and the industry to supplement the existing high seas maritime workforce in the event of a national emergency or sealift crisis.

H. Cargo Preference

1. Background

Cargo preference refers to the laws and statutes that reserve certain government-impelled, oceanborne cargo for U.S.-citizen owned and crewed vessels, including:

- **Cargo Preference Act of 1904.** All items procured for, or owned by, U.S. military departments and defense agencies must be carried on U.S. vessels. Freight charges may not be higher than the charges made for transporting like goods for private persons. The President may waive the preference requirement if the freight charged is excessive or otherwise unreasonable.

- **Cargo Preference Act of 1954 (as amended).** At least 50 percent (75 percent of certain agricultural cargoes under the Food Security Act of 1985) of the gross tonnage of Government-generated cargo must be transported on privately owned, U.S.-flag commercial vessels, if such vessels are available at fair and

reasonable rates for U.S.-flag commercial vessels. Recent regulatory revisions have replaced individual vessel cost estimates with average costs for similar vessels, and reduced administrative paperwork costs to the industry and Federal Government.

- **Public Resolution 17 (73rd Congress).** All cargo generated by Export-Import Bank programs must be shipped on U.S.-flag vessels if sufficient vessels are available at reasonable rates. If U.S.-flag vessels are not available in sufficient numbers or tonnage, or at reasonable rates, when the cargo needs to sail, then a statutory waiver can be granted. In addition, MARAD also grants general waivers to permit vessels of a recipient nation to carry up to 50 percent of the cargo generated by an individual loan or guarantee agreement, provided that nation has not discriminated against U.S.-flag vessels.

- **Public Law 104-58 (and other laws governing oil tanker movements).** In November 1995, Congress authorized the export of Alaskan North Slope crude oil when transported in U.S.-flag tankers.

Recent studies conducted by the Government Accounting Office and DOD have concluded that much, if not the majority, of the U.S.-flag fleet would reflag under a foreign registry, be sold to foreign buyers, or be scrapped if cargo preference requirements were eliminated. While the new Maritime Security Program will help to maintain a core U.S.-flag fleet, cargo preference is also needed to provide a base of cargo and sustain employment for the U.S.-flag fleet and the trained seafarers who serve on board. Thus, in combination with the MSP and U.S. cabotage laws, cargo preference programs help to:

- Foster and maintain a United States merchant marine capable of meeting economic and national security requirements;

- Reverse the precipitous decrease in the number of ships in the United States-flag fleet and the Nation's shipyard and repair capability;

- Stabilize the number of mariners available to crew the United States merchant vessels; and,

- Ensure that Federal agencies promote, through efficient application of laws and regulations, the readiness of the United States merchant marine and supporting industries.

2. Program Description

The Merchant Marine Act of 1970 established MARAD as the lead agency for overseeing the administration of cargo preference programs. MARAD ensures that Federal agencies comply with U.S. cargo preference laws and regulations, encourages such Federal agencies to maximize the use of U.S.-flag vessels, and identifies discriminatory, or potentially discriminatory, trade practices against U.S.-flag vessels in the shipment of reserved cargoes. Further, as part of its administrative oversight responsibilities, MARAD is working to increase the efficiency of the cargo reservation programs through improvements in data collection and the adoption of appropriate commercial practices.

3. Recent Accomplishments

MARAD held a series of meetings with both ocean carriers and exporters to simplify and clarify the waiver process for Eximbank project cargoes. As a result, policy changes have been implemented to improve communications among all parties, clarify procedures, and provide extended waivers without unduly denying U.S.-flag vessels cargo carrying opportunities.

MARAD is also working with the maritime industry, DOD and the Office of Federal Procurement Policy to revise acquisition regulations governing preference cargoes. These efforts will reduce burdens on commercial acquisition, while maintaining the intent of the cargo preference laws.

Great Lakes Alternative: The Great Lakes ports have indicated that they are unable to participate equitably in cargo preference shipments, due to the physical constraints of the St. Lawrence Seaway. To promote the use of Great Lakes ports, MARAD temporarily modified cargo preference requirements for shipments of bulk agricultural commodities beginning in August 1994. During the test period, bulk cargo can be initially loaded on foreign-flag "feeder" vessels at a Great Lakes port, shipped to a Canadian port outside the St. Lawrence Seaway, and then transferred to an oceangoing U.S.-flag vessel for transport to the final foreign destination. By the end of Year 2000, the Federal Government and industry hope to have collected sufficient data to measure the effectiveness of this routing method and to evaluate the net benefits gained from this option.

Improved Reporting of Cargo Preference Shipments: MARAD and DOD executed a Memorandum of Agreement to improve the reporting of DOD-sponsored shipments of personal effects, which are also an important source of cargo for U.S.-flag ships.

I. Domestic Shipping Operations

1. Background

U.S. domestic shipping laws generally require that U.S.-built, owned, and registered vessels be used in domestic waterborne commerce along the inland waterways, across the Great Lakes, along the U.S. seaboard, and between the U.S. mainland and the noncontiguous states and territories of the United States. The reservation of a nation's coastwise trade (passengers and freight) exclusively to that nation's own vessels, also known as cabotage, has been part of U.S. law and policy, in some form, since the first Congress in 1789, and is common among maritime nations. More than forty industrialized nations have laws similar to ours, including most of our major trading partners -- Japan, Canada, France, Germany, Greece, Italy, Portugal, and Spain.

After World War I proved the importance of waterborne transportation to our national defense and economic security, Congress enacted the Merchant Marine Act of 1920, which includes the Jones Act (46 App. U.S.C. 883). Congress established the goal in the 1920 Merchant Marine Act "... that it is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency...." The Jones Act helps achieve this goal by maintaining reliable domestic shipping services and ensuring the availability of a domestic maritime industry that is subject to national control in time of need.

The Jones Act fleet is an essential component of our most cost-effective sealift resource: the privately-owned civilian merchant fleet, the trained mariners who crew those ships, and the associated worldwide intermodal equipment and logistics management systems that support their profitable employment in peacetime. Over 75 percent of the oceangoing vessels in the Jones Act fleet are militarily useful.

Moreover, domestic carriers on the oceans and inland waterways support the civilian economy and move the cargo necessary to supply wartime production in the U.S. industrial base, including crude oil, petroleum products and coal iron ore, grain, and manufactured goods. During a conflict, domestic carriers (inland waterways, Great Lakes, and deep sea) are part of the pipeline that moves sealift cargoes from inland points to coastal ports for shipment to the theater of operations.

The domestic maritime industry also supports our Nation's peacetime economy. Domestic water carriers move about 24 percent of the cargo in America annually, at less than 2 percent of the entire domestic freight bill ($444 billion in 1996). Over $26 billion in private funds have been invested in a domestic fleet of 44,000 vessels and barges. Approximately 124,000 U.S. citizens are employed in the Jones Act maritime industry as vessel crews, other shipboard

workers, or in shoreside jobs. Of this total, about 80,000 people were employed on board Jones Act vessels.

For many commodities vital to our economy, shipment by water is the least costly, most environmentally sound, and most fuel efficient mode of transport. For example, in 1996, a shipper could move a ton of freight one mile on the inland waterways for less than a cent. By comparison, moving that same ton-mile of cargo would have cost 2.4 cents by rail, 26 cents by truck, and 54 cents by air. The large carrying capacities of ships and barges compared to railcars and trucks make waterborne shipments more fuel efficient, and ships and barges generate less air and noise pollution than other modes per ton of cargo moved across our Nation.

U.S. cabotage laws, in combination with the MSP and cargo preference programs, domestic shipping, and the Jones Act are working to achieve the statutory objectives to:

- Foster and maintain a United States merchant marine capable of meeting economic and national security requirements;
- Improve the vitality and competitiveness of the United States merchant marine and the maritime industrial base, including ship repairers, shipbuilders, ship manning, ship operators, and ship suppliers;
- Stabilize the number of mariners available to crew the United States merchant vessels;
- Achieve adequate manning of merchant vessels for national security needs during a mobilization;
- Ensure that sufficient civil maritime resources will be available to meet defense deployments and essential economic requirements in support of our national security strategy; and,
- Ensure that the United States maintains the capability to respond unilaterally to security threats in geographic areas not covered by alliance commitments and otherwise meet sealift requirements in the event of crisis or war.

2. Program Description

The U.S. Customs Service is responsible for enforcing the U.S. cabotage laws, while MARAD provides a shipper assistance service to preclude potential violations. MARAD responds to questions by all parties concerning domestic water transportation, provides information on available service and vessel capabilities, and provides technical assistance to the domestic shipping industry to foster improvements in efficiency. In addition, MARAD

coordinates with DOD, the Department of Energy, the American Waterway Operators, and other industry groups on Jones Act issues and related port, intermodal, and environmental concerns, in order to ensure the adequacy of the domestic fleet to meet national defense and economic support shipping requirements.

MARAD also works with industry in developing innovative uses for domestic waterways to furnish cost-effective, door-to-door commodity movements and thereby further reduce the Nation's freight bill and improve the competitiveness of U.S. exports. These efforts have: expanded river barge operations in the Great Lakes-inland river trade, reducing the need for cargo transhipment to rail; improved door-to-door shipments of containerized export cargo on the Columbia-Snake River, resulting in major export growth of processed agricultural products and other commodities produced in the Pacific Northwest; and assisted the industry in strategic planning, waterfront land use, and port access.

In addition, USCG Captains of the Port (COTP) enhance mobility, promote safety, and protect the environment. The local COTPs: administer a variety of waterways management tools affecting waterborne commerce; enforce regulations assuring the security of vessels, harbors and waterfront facilities, and anchorages; and direct the use of security and safety zones, regulated navigation areas, and deepwater ports. The COTPs also enlist the support and cooperation of other Federal, State, local, and private agencies to assist when necessary at their respective ports.

3. Recent Accomplishments

Sealift Support: Militarily useful Jones Act ships and crews were called upon to deliver military supplies during Operations DESERT SHIELD/DESERT STORM. Two Jones Act roll-on/roll-off (RO/RO) ships and six Jones Act tankers were chartered by DOD for the sealift operations. In addition to serving the needs of the domestic economy, many seafarers who normally work onboard Jones Act vessels volunteered during the Persian Gulf conflict to crew government-owned ships, including ships in the RRF. Actively sailing crews on Jones Act vessels delayed their shoreside leave, thereby freeing up their normal relief crews to take jobs on sealift support ships.

Jones Act seafarers have continued to volunteer during more recent missions. In 1994, DOD used small coastal dry cargo ships to supply humanitarian relief cargoes to Haitian refugees. During Operation JOINT ENDEAVOR, 70 percent of the civilian crew serving on RRF ships activated for Bosnia had been employed in the domestic fleet at some time during the five years following the Persian Gulf conflict.

More recently, 38 containerships and RO/ROs and 60 barges from the domestic fleet have been enrolled in the Voluntary Intermodal Sealift Agreement.

Enhanced Competitiveness and Cost-Effectiveness of the Domestic Fleet: MARAD's technical assistance efforts help to ensure the availability of a domestic shipping industry for national security and economic support shipping needs. Recent MARAD activities have included: an assessment of the capability of the shallow draft industry to move commercial cargoes efficiently; a study of the long-range competitiveness of the inland barge segment; and a report on the environmental advantages of inland barge transportation. These analyses help identify improvements that the industry needs to make to provide safe and low-polluting, cost-effective transportation of goods.

Technical Assistance to Shippers: In seeking full compliance with the coastwise laws, MARAD responds to over 150 requests per year for clarification of domestic shipping laws, provides contacts for obtaining qualified Jones Act vessels, and replies within 48 hours to Jones Act waiver requests. By providing this information to shippers, MARAD assists the industry to meet the demand for vessels for both commercial and DOD shipments. As a result of these efforts, no waivers were required in FY 1996 and FY 1997. Moreover, as a result of industry-MARAD cooperation, few Jones Act shipping problems reach the formal waiver process.

J. Maritime Research, Development, and Technology Transfer

1. Background

More than ever before, technological leadership is vital to our national interests. As stated in the recent National Science and Technology Council (NSTC) report, *Technology in the National Interest*, "Our ability to harness the power and promise of leading-edge advances in technology will determine, in large measure, our national prosperity, security, and global influence, and with them the standard of living and quality of life of our people." Technology is particularly essential to the health of our transportation system.

If the U.S. maritime industry is to become more competitive in the global marketplace, then all sectors of the industry -- ship operators, shipbuilders, ports, terminal operators, etc. -- will need to keep pace with rapidly changing technology. However, in an era of corporate and government downsizing, few firms or government agencies can maintain substantial in-house research programs. One way to maximize the return on limited research dollars is to pool resources through cooperative research. In today's rapidly evolving transportation markets and national security arrangements, public-private partnerships aimed at furthering industry competitiveness, intermodal development, and shipyard revitalization benefit not only vessel operators, but manufacturers and consumers as well. Moreover, continuing public concern over safety, environmental protection, and national security remain areas of significant Federal responsibility where coordinated action by Government is often vital.

MARAD coordinates maritime and intermodal research by industry, academia, and other government agencies on a cost-shared basis, emphasizing shipyard revitalization, intermodal

development, industry competitiveness, national security, and maritime safety. The overall goal of MARAD's research program is to improve the competitiveness and military utility of U.S. shipbuilding and repair yards, vessel operations, intermodal transportation and port operations through the assessment and deployment of innovative technology and management practices, while protecting the environment and public health and welfare. An essential complement to virtually all maritime programs, this program addresses the Congressional objective to:

- Improve the vitality and competitiveness of the U.S. merchant marine and the maritime industrial base, including ship repairers, shipbuilders, ship manning, ship operators, and ship suppliers.

2. Program Description

MARAD's research program builds on more than 35 years of maritime research experience, emphasizing government-industry cooperation and cost-sharing. While MARAD currently receives no direct funding for research projects, MARAD does act as a catalyst for maritime and intermodal research. The program allows many firms to participate in research that would not be technically or economically feasible to conduct individually. In addition to the MARITECH and environmental activities programs already mentioned in this report, major areas of work include:

Cooperative Programs: Two major projects are directed towards improving international competitiveness and environmental protection. Since 1993, the U.S. maritime industry, the Military Sealift Command, and the National Oceanic and Atmospheric Administration have participated with MARAD in the Ship Operations Cooperative Program. This program is targeted at the development and application of new methods, procedures, and technologies for improving the efficiency, safety, and environmental responsiveness of U.S. vessel operations. In addition, the Cargo Handling Cooperative Program, as described earlier, is developing and testing new technologies, systems, and methods to increase the cargo handling productivity of U.S.-flag carriers.

Center for Commercial Deployment of Transportation Technologies (CCDoTT): In FY 1997, MARAD entered into cooperative agreements with USTRANSCOM to assist in the technical management of CCDoTT, which is located at the California State University at Long Beach. The CCDoTT program demonstrates existing, emerging and developing technologies in cargo handling, tagging, tracking, information management systems and high speed sealift (HSS). These technologies, if adopted, will help expand the ability of commercial transportation to quickly accommodate military cargo, minimize the impact on commercial transportation from military surge deployments and improve the overall ability of terminals to accommodate a variety of ship types.

National Maritime Enhancement Institutes: In 1990, MARAD designated four universities as institutes to lead academic teams in specialized topics: technology for maintaining and operating ships (University of California); maritime transportation systems (Louisiana State University); inland waterways (Memphis State with the University of Tennessee and the University of Kentucky); or a broad range of issues (Massachusetts Institute of Technology). The Agency canvasses the institutes annually for research suggestions that may eventually be approved for cooperative development. The USCG participates in this program for specific problems well-suited to academic investigation. MARAD encourages each institute to establish working relationships with the maritime industry, particularly as cost-sharing is a condition of award.

Small Business Innovation Research (SBIR): DOT is one of 11 Federal agencies seeking to improve small business participation in Federal research by providing an SBIR program. MARAD has made effective use of DOT's SBIR awards by emphasizing commercialization of the technology developed. Past projects included: applying simple shipboard simulation to train seagoing personnel; improving shipboard crane operations; and improving the transfer of containers between ships and trains.

National Research Council: The Marine Board and the Transportation Research Board (TRB) are operating units of the National Research Council (National Academy of Sciences) that are involved in maritime and intermodal research. The Marine Board sponsors research (funded primarily by Federal agencies) on the knowledgeable and safe use of marine resources, development of marine and maritime technology, and protection of coastal and ocean ecosystems. MARAD provides expert advice to the TRB concerning intermodal research proposals that involve various modes of transportation -- air, rail, highway, and water.

3. Recent Accomplishments

Cooperative maritime and intermodal research efforts over the past five years include:

- Processes and procedures for improving shipyard productivity;
- Computer-based system on reliability and maintainability data for ship operations;
- Investigation of better hull monitoring systems, visual detection of structural defects, and corrosion control during fabrication, as well as improvement of the fatigue resistance of vessel structures;
- Market analysis to determine future trade requirements and demand for specific ship types;

- Decision-making methodology for the management of dredged material and contaminated sediments;
- Shipboard training system based on personal computers;
- Procedure for controlling garbage and plastic wastes at sea; and,
- Procedures for controlling the introductions of nonindigenous species by ships' ballast water.

IV. FUTURE POLICIES FOR THE U.S. MARITIME INDUSTRY

The United States must have a strong and vigorous maritime industry to ensure the national and economic security of the Nation. The strategic goals of the Maritime Administration envision, in the long run, a competitive U.S.-flag fleet to carry our domestic and international waterborne commerce, a domestic shipbuilding industry that prospers in the domestic and international marketplace, and a technologically advanced maritime transportation infrastructure.

Over the past four years, the two most important policy accomplishments were the Maritime Security Act of 1996 and the National Shipbuilding and Shipyard Conversion Act of 1993. The overwhelming bipartisan support in Congress for these maritime revitalization initiatives during a time marked by other vital national priorities stands as an affirmation of America's commitment to our Nation's maritime industry. That commitment must continue unabated. Therefore, over the next five years, DOT will advocate the maritime policies presented below to, at a minimum, arrest further decline in the existing U.S. maritime infrastructure and maintain core capabilities in this essential industry.

- **Full funding for the Maritime Security Program:** In order to maintain the militarily-useful nucleus fleet of U.S.-flag commercial vessels which comprise the Maritime Security Fleet, the MSP must be fully funded in Fiscal Year 1998 and beyond, through annual appropriations.

  Full funding for the MSP is paramount to achieving our Nation's maritime policy goals. If sufficient funds are not appropriated each year over the life of the program, then the operators of those vessels not funded will be released from any further obligation under their operating agreement and will be allowed to transfer those vessels to a foreign registry. Once a vessel is transferred abroad, it is highly unlikely that the vessel will be returned to U.S. registry.

  If this were to occur, the United States would risk losing a substantial portion of our international liner fleet, leading to near total reliance on foreign-flag vessels to carry our Nation's waterborne imports and exports and increased outlays by DOD for sealift. The $100 million per year authorized by Congress for the MSP is far less costly than the $800 million estimated by USTRANSCOM as the annual DOD expenditure that would be required to replicate, with government-owned vessels, the sealift capability provided by the Maritime Security Fleet.

- **Continuation of the National Shipbuilding Initiative:** The NSI was originally designed to be a transitional program, consistent with federal assistance to other industries seeking to convert from defense to civilian markets. Federal programs funded under the NSI have been highly successful in helping the U.S. shipbuilding industry become competitive internationally, as evidenced by recent commercial orders from foreign operators. Funding for Title XI loan guarantees, MARITECH and related

shipbuilding research and development, the National Maritime Resource and Education Center, and international shipyard marketing must be sustained at current levels -- at a minimum -- if U.S. shipyards are to make further improvements in shipbuilding designs and production processes, and secure ongoing new construction contracts. MARAD will also continue to support efforts to ratify a multilateral agreement to eliminate trade-distorting subsidies in the international shipbuilding market.

- **Commitment to existing cabotage laws:** The Administration strongly supports U.S. cabotage laws and believes they will continue to serve the Nation's needs well into the 21st Century. The MSP, the NSI, and U.S. cabotage laws represent a three-pronged strategy to promote the U.S. merchant marine and its supporting industries so that critical national security requirements are met.

  The Jones Act and other U.S. cabotage laws guarantee our Nation's control of essential transportation assets and their related infrastructure in both peace and war. U.S.-owned, U.S.-crewed, and U.S.-built ships are an essential part of the transportation pipeline during sealift operations; they are needed to move strategic raw materials used in wartime production, and to support our growing civilian economy. The domestic fleet is also an important source of mariners to support sealift operations. As the greatest trading nation in the world, the United States must continue to exercise American control over its interests as a fundamental aspect of its national security.

- **Continued effective management of the Ready Reserve Force by MARAD:** The RRF is a critical component of DOD sealift operations. Based on current DOD estimates of its sealift requirements, the number of ships and the readiness status of the RRF will largely remain unchanged until the year 2000, when the readiness of 19 of the older breakbulk vessels will be downgraded to 30-day status.

  Full funding of the RRF is required annually in order to maintain the present readiness status of the RRF. Through its management of the RRF and specific sealift enhancement programs, MARAD will ensure that the ships are maintained in an appropriate state-of-readiness, improve the capability and efficiency of Reserve Fleet facilities, and work cooperatively with the shipbuilding and repair industry to enhance its ability to support Reserve Fleet activations.

- **Enforcement of cargo preference requirements:** While the new MSP will help to maintain a core U.S.-flag liner fleet, cargo preference is also needed to sustain employment for the U.S.-flag fleet, particularly the dry bulk fleet and smaller liner companies who are not participating in the MSP and who are most vulnerable to financial problems, and the trained seafarers who serve on board.

Fiscal constraints on agricultural programs have resulted in program reductions. According to Federal budget data, the dollar value of shipments by the U.S. Department of Agriculture (USDA), the Agency for International Development, and the Department of State has declined by 70 percent between FY 1994 and FY 1998. Due to major budget cutbacks planned for USDA aid programs, this decline will deepen significantly in FY 1999.

Over the past four years, DOT has successfully promoted and implemented statutory and administrative changes that have increased the efficiency and equity of spending on transportation for preference cargoes, including the experimental modification of requirements for bulk agricultural shipments on the Great Lakes. Currently, DOT is urging Federal agencies to make greater use of commercial contracting practices, which can reduce land and ocean transportation-related costs now charged to the Government. In order for these improvements to have a beneficial impact on carriers and ports, funding levels for the transportation of preference cargoes should be maintained at least at current levels.

- **Initiatives to increase the efficiency and safety of intermodal freight transportation:** Improving landside and waterside access to ports and terminals continues to be critical to the efficient flow of freight in domestic and international commerce. Actions must be taken to ensure further improvements in access so that our Nation's ports are able to handle the growth in international and domestic waterborne commerce. Further, the legislation reauthorizing the Intermodal Surface Transportation Efficiency Act (ISTEA) must enable the creation of public/private partnerships to finance the intermodal freight connections needed to integrate our national transportation system into a seamless system.

- **Elimination of unfair foreign trade practices.** DOT and MARAD will continue to work with the State Department, the USTR, and the FMC to end unfair trade practices which harm American maritime interests, and to ensure fair access for U.S.-flag shipping companies to international cargo and fair opportunities for U.S. companies to establish full-service intermodal shipping operations overseas. Japan, Brazil and China will continue to be the primary focus, in the near term, to extend and implement market access for U.S. carriers' operations overseas. Implementation of the Agreement reached with the Government of Japan in October 1997 to open the port services sector to U.S. carriers will require careful monitoring. With respect to Brazil, MARAD will continue to seek removal of tax measures that discriminate against U.S. carriers and which are inconsistent with the U.S.-Brazil Maritime Agreement. Finally, preparations are underway on a new Maritime Agreement with China to replace the accord which expires in June 1998, addressing market access impediments faced by U.S. carriers in China, but which do not exist for Chinese carriers doing business in the United States. DOT and MARAD will also continue to support Administration efforts to gain industry and Congressional support for a multilateral agreement in the OECD to end trade-distorting

shipbuilding practices. Further, such an agreement should be extended to include non-signatory countries, and carefully monitored to ensure full compliance.

- **A highly skilled maritime workforce:** To meet ongoing requirements for a qualified maritime workforce, DOT will support high-quality maritime and intermodal transportation education and training programs at the U.S. Merchant Marine Academy and State maritime academies. Further, DOT will lead seafaring and shoreside labor, management, and government agencies in mutual efforts to ensure the availability of adequate personnel to meet DOD's sealift requirements, and to protect the health, welfare, and safety of maritime personnel.

- **Greater use of public-private partnerships to develop and implement advanced maritime technologies:** In past years, Federally-sponsored maritime research focused on technological innovations that yielded long-term benefits for a broad spectrum of the U.S. maritime industry, while private-sector research focused on short-term activities that provided immediate benefits to individuals companies. Given recent efforts to curb discretionary spending, Federal support for maritime research has been extremely limited, and the focus is now on near-term results. Presently, MARAD's research, development and technology transfer program is limited to MARITECH, the Cargo Handling Cooperative Program, and the Ship Operations Cooperative Program.

  The future challenge for MARAD will be to balance the need for long-range technological leadership in the marine transportation industry with the immediate requirement to reduce Federal discretionary spending. With modest funding, however, MARAD can serve as the catalyst to leverage public and private resources into long-range maritime and intermodal research that advances public goals for the maritime industry.