The Maritime Administration and the U.S. Marine Transportation System:

A Vision for the 21st Century

United States Department of Transportation
Maritime Administration

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Introduction:
A Sea Change

The American marine transportation industry has become a highly sophisticated, global, intermodal transportation network that is absolutely vital to the nation's economy and continued prosperity.

To say that America's marine transportation industry is just about ships and mariners is like saying that commercial aviation is only about planes and pilots. As we move forward in the 21st century, a profound sea change is taking shape. The marine transportation industry has become a highly sophisticated, global, intermodal transportation network that is absolutely vital to America's economy and continued prosperity.

Every day, thousands of vessels ply the world's vast ocean highways and America's waterways carrying record quantities of consumer goods and cargo. But the journey today no longer begins and ends at a port. It begins with construction of the ships that carry goods produced around the globe and can conclude at a department store's receiving dock in Indianapolis or any other American city.

Port-to-port grew into door-to-door for the marine transportation industry. America's marine transportation industry led the intermodal revolution and is the most interconnected of all forms of transportation. More than half a century ago, America's marine transportation industry pioneered the use of the container, now the standard instrument of trade all over the world. It also paved the way for double-stacked trains and the development of door-to-door logistical operations, software and tracking systems.

This evolution has transformed the way we think about the business of moving freight and people. It has completely altered the transportation landscape and the role of transportation in our lives. Marine transportation is now a system of systems — an integrated network, not just within the United States, but around the world. It must operate seamlessly.

Taking full advantage of America's wealth of waterways, the Marine Transportation System requires vessels of all kinds suited to all kinds of cargo. It requires an advanced network of ports and terminals, fleets of trucks, rail cars and barges to carry these goods to the customer. It requires highly trained personnel both ashore and afloat. It needs support services and industries to keep the network up and running.

It requires a highly complex logistical choreography of man and machine, an infrastructure of ship construction and repair facilities, pinpoint scheduling and the ability to track and trace all assets 24/7 throughout the supply chain — whether those assets are in the air, or on water or land.

However, marine transportation is not just about physically moving cargo and people across land and bodies of water great and small, but better managing the entire shipment process. It is about providing greater efficiency, reliability and cost savings. It is meeting customer expectations and providing world class customer service.

America's marine transportation industry helped usher in the global economy. It is innovation's partner.

We Are All Customers

We are all customers of the Marine Transportation System. Over the past decade, we have seen an unprecedented increase in the flow of global trade. Much of this is due to the steady growth in the Gross Domestic Product (GDP) of the United States, the European Union, China and India, whose economies have become closely linked. There are now massive global hubs or "gateways" located on every continent and much of this merchandise trade moves through them.

In every case, these gateways connect vessel owners, operators and charterers moving freight trying to satisfy shippers who in turn must deliver orders to satisfy their customers. Today we see an almost continual movement of tankers, bulkers, and mega-containerships filled with merchandise on its way to businesses large and small, ultimately destined for our homes, offices, stores, and factories. We are also seeing an enormous increase in American exports, which keeps our businesses busy and our citizens employed.

Marine transportation touches virtually every aspect of American life — from the clothes we wear, to the cars we drive, to the oil and natural gas we use to heat our homes in winter and cool them in summer. It transports "Made in the USA" labeled goods to customers throughout the world. Without this robust and expanding industry, we would return to the days when consumer choices were limited or in short supply.

America's marine transportation industry helped usher in the global economy. It opened up new markets abroad and met record consumer demand at home. It is innovation's partner. Mega-retailers and shopping malls offering a wide range of competitively priced goods from Australia to Zanzibar could not exist without a reliable and cost efficient marine transportation system.

Yet few people are aware how much the United States depends upon this vital and dynamic industry, and its huge economic footprint.

An Engine of Economic Growth

The marine transportation industry is not just about the shipment of consumer goods: bulk commodities, such as grain; manufactured products; raw materials, such as logs and lumber; and energy products. It begins with shipyards that build and repair the vessels that operate in the Marine Transportation System. The infrastructure and many industries that help sustain it constitute an enormous engine of economic growth on their own. These industries create high paying, skilled jobs throughout the economy that depend on the Marine Transportation System to deliver the goods of America.

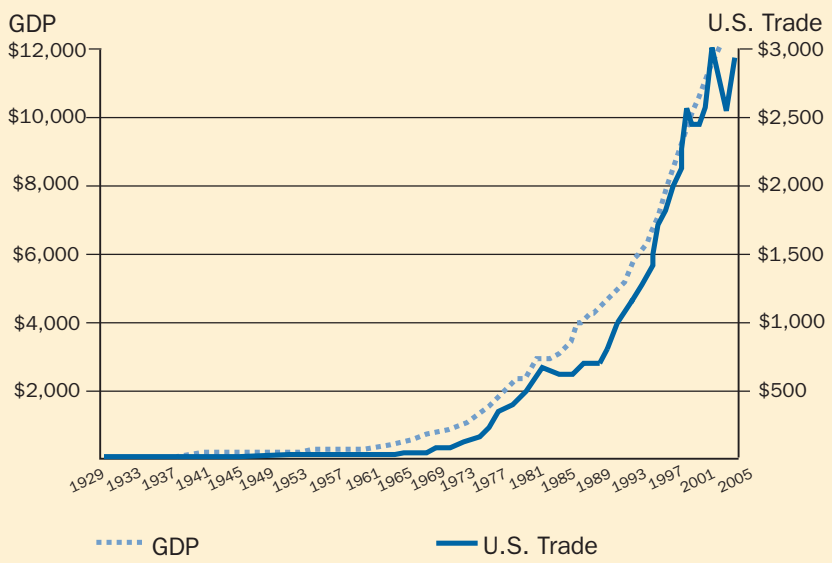
The maritime industry sustains an enormous engine of economic growth on its own.

For example, the trade activity of the Port of Los Angeles and the Port of Long Beach created 3.3 million jobs across the nation in 2005, a 200 percent increase from 1994. Nationally, state and local taxes generated from trade activity grew from an estimated $6 billion in 1994 to more than $28 billion in 2005. The U.S. commercial shipbuilding and repair industry adds billions of dollars to U.S. economic output annually. The marine transportation industry even contributes to U.S. commercial aviation. The cruise ship industry is among the largest purchasers of airline tickets; all those passengers have to get to their ships. Overall, the Marine Transportation System supports 13 million jobs. The success story does not end there.

Since 2000, the total value of international trade has risen by over 40 percent and it is becoming a larger part of our national economy. The combined value of foreign trade (imports and exports) represented 13 percent of GDP in 1990, rising to nearly 22 percent in 2006. If this trend continues, it is projected that the value of U.S. foreign trade will be equivalent to 35 percent of the Nation's GDP in 2020 and 60 percent in 2030. Marine transportation will become even more important to our economy as 95 percent of America's foreign trade is moved by ship.

U.S. Trade and Gross Domestic Product

billion dollars



Source: U.S. Department of Transportation based on U.S. Department of Commerce data

America's network of waterways moves more than 2.3 billion tons of domestic and foreign cargo each year. The top 50 ports in the U.S. handle about 84 percent of all waterborne domestic and international cargo tonnage; more than 1.9 billion tons annually. In the coming years, demand at almost all U.S. ports will at least double. These volumes were unimaginable at the dawn of the container era just 50 years ago.

Indeed, the marine transportation industry is the circulatory system of the global economy and will play an even greater role in the U.S. economy as international trade continues to grow in importance.

To meet the demands of our Nation to grow and prosper, the U.S. transportation infrastructure is being stretched to the limits of its capacity.

Capacity Stretched to its Limits

America's great economic growth brings with it enormous challenges. To meet the demands of our Nation to grow and prosper, the U.S. transportation infrastructure is being stretched to the limits of its capacity, and as a result, functions less efficiently and reliably.

American ports, the critical link in freight movement, are already challenged to face a projected surge in cargo over the next 10 to 15 years. The difficulties posed by increased volume of cargo are compounded by environmental challenges, a limited supply of land to expand and congested road and rail linkages.

In addition, there is a growing backlog of dredging projects that must be completed in order to maintain or improve channel and harbor depths. Without these improvements, some vessels cannot travel fully loaded and new, larger oceangoing vessels have limited access to our ports.

Congestion is not limited to ports. It is a systemic national problem that will get far worse with devastating repercussions on the economy and U.S. global leadership. Shoreside transportation capacity is already at a premium. Chokepoints and gridlock are routinely encountered. There are 24/7 "rush hours" on the busiest highways and routine freight backups on rail lines. Packed airports and crowded skies are a given. Idling ships, trains and trucks seem to have become a fact of life.

Congestion is literally contagious, as are the inefficiencies. Congestion is more than an inconvenience. Congestion constrains growth, distorts business decisions and threatens continued U.S. leadership as the world's largest global trading partner.

Since 1775, the marine transportation industry has met the needs of our Nation during peace and war.

A Legacy of Success

Since 1775, the marine transportation industry has met the needs of our Nation during peace and war. Our fleet continues to be a critical component of the Nation's transportation infrastructure and military readiness.

The domestic "Jones Act" component, a fleet of over 38,000 vessels, is "Made in America" and represents an aggregate $48 billion investment. Building and maintaining the Jones Act fleet sustains roughly 150,000 jobs throughout the U.S. economy. This fleet is being continuously upgraded and renewed, with domestic maritime carriers moving almost one billion tons of cargo annually along our coasts, on our rivers and lakes, the Great Lakes, and to and from Alaska, Hawaii, Puerto Rico and Guam.

In addition to their commercial functions, U.S.-flag ships and their connecting intermodal systems play an integral but often unheralded role in bringing critical supplies to military missions across the globe. The Nation's sealift assets, strategic ports and supporting infrastructure are integral links in the defense logistics chain and the projection of American power.

The U.S.-flag industry also brings life-saving food to the world's neediest people. U.S. ships furnish support in our own time of need, such as using vessels in the aftermath of Hurricanes Katrina and Rita to support first responders and those involved in the rebuilding efforts.

It supplies jobs for highly trained and qualified American officers and mariners, not only for our commercial interests but for future national security needs. It provides well-paying shoreside and shipyard jobs as well.

Now, it is time to take this legacy of success to new horizons and even greater economic growth.

The New Maritime Administration: Positioned for Leadership

The Maritime Administration is ideally situated to assist in addressing the pressing issues facing the Marine Transportation System. Moreover, it is well positioned to mediate the sometimes competing, disparate goals of those involved in this complex process, and to forge workable partnerships that serve the long-term interests of those providing the Nation with an efficient, reliable and profitable maritime presence in the global marketplace.

The Maritime Administration is the advocate for the maritime industry within the U.S. Government. Beyond that, the Agency brings to the table considerable technical and professional experience in vessel design, construction, maintenance and repair, port operations, vessel operations and the financial acumen needed to understand industry investment capabilities and limitations.

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Yet, unlike other government agencies dealing in the maritime field, the Maritime Administration is not an enforcement or regulatory agency. Rather, it works in concert with industry developing best management practices and voluntary measures to enhance operation and viability of the U.S. Marine Transportation System.

In recognition of its unique role with industry, and to revitalize its position as industry facilitator, the Maritime Administration recently engaged in a realignment of resources to:

- focus more effort and attention on the development of a seamless transportation system serving the Nation's gateways, waterways and ports
- oversee the Agency's current U.S. industry support and workforce development activities
- effectively manage maritime assets in support of the Department of Defense; prepare for maritime emergencies; and implement best practices in the disposition of obsolete ships in the National Defense Reserve Fleet, and
- address growing regulatory and compliance challenges facing the maritime community in areas affecting environment, security and safety.

This realignment is, in reality, the embodiment of, and tangible commitment to achieving the Maritime Administration's "Vision for the 21st Century."

A Vision for the Future

The Agency is working with the diverse marine transportation stakeholders to plan and implement a better future.

The Maritime Administration is committed to working collaboratively with all stakeholders including other governments, foreign and domestic ports and all transportation sectors and modes to ensure that the United States has a marine transportation network capable of accommodating whatever the future may hold. Such a system must meet these critical needs:

- It must move a larger volume of goods and people with high levels of reliability and efficiency
- It must be flexible, resilient, cost effective and environmentally friendly
- It must make the best use of available and advanced technology
- It must have a global perspective and be able to meet changing market conditions and customer needs
- It must encourage new business models and a dynamic set of “door-to-door” services
- It must promote innovative financing mechanisms in partnership with the private sector to improve and expand the transportation network
- It must ensure a stable shipyard industrial base to effectively build and repair the ships and barges that serve the Marine Transportation System
- It must be available to serve American interests in time of national or international emergency
- It must preserve and promote American economic interests and encourage American content and participation

The Maritime Administration embraces this challenge and leadership role in the debate about how this system of systems should look and operate—on sea and on land. Indeed, the Maritime Administration is working to bring to bear its experience and expertise to provide practical, cost-efficient solutions at the international, national and local levels. The Agency is working with the diverse marine transportation stakeholders to plan and implement a better future for the Marine Transportation System.

The Nation faces profound changes in marine transportation not seen since the revolution in containerized shipping that launched the intermodal era in the 1960s. And with change comes an extraordinary opportunity to keep this great engine of economic growth producing at peak performance for this and future generations of Americans. Accomplishing this task will require vision, determination, hard work, unprecedented engagement and cooperation across all modes of transportation.

Delivering the Goods for America: Intermodal System Development

Stress on the Nation's Port System

The problem is the depth of supporting ship channels, inefficiencies in the supply chain, and the capacity of highway and rail infrastructure needed to transport freight to its final destination.

Think of the great marine highways as a vast beltway encircling the globe with almost unlimited lanes and capacity–every commuter's and transportation planner's rush hour dream. But these ocean highways share a common feature with their more congested urban loops surrounding major U.S. cities. Both have bottlenecks lying in wait as vehicles and ships exit them to get into or out of a city or port.

A state-of-the-art containership that made the 5,700 nautical mile Pacific crossing in 11 days is suddenly brought to a crawl as it tries to enter the port facility and unload its cargo onto trucks and double-stack rail cars. The problem is not so much the ability of ports to unload the additional containers, but rather the depth of supporting ship channels, inefficiencies in the supply chain, and the capacity of highway and rail infrastructure needed to transport freight to its final destination.

These challenges are not limited to the United States. Overall, many port complexes worldwide face the interconnected challenges of creating greater capacity to meet future growth, improving the efficiency of freight movements and being good environmental stewards.

The Pressure Is On

With the 10 busiest U.S. ports now handling 85 percent of all containerized cargo, demand is quickly outpacing available capacity. These busy U.S. ports experienced a staggering 54 percent increase in container movements between 2001 and 2006. Similar trends are seen at the ports serving the markets for energy, chemicals, grain and other raw materials.

The bottom line: to sustain expected growth, it is estimated the U.S. must expand its overall port capacity by 10% annually.

U.S. CONTAINER SHIPPING FACTS

- The United States ranks second in world maritime container traffic after China with one in nine maritime containers in the world either bound for or coming from the United States.
- U.S.-container trade in 2005 and 2006 was more than double the trade of a decade earlier. An estimated 46.3 million containers (twenty-foot equivalent units) passed through U.S. ports in 2006, up from 22.6 million in 1996.
- Container traffic in the United States is becoming more concentrated as larger, faster and more specialized vessels call at the limited number of ports capable of handling them. The top 10 U.S. container ports accounted for 85 percent of U.S. containerized traffic in 2006 up from 78 percent in 1995.
- Nearly 55 percent of U.S. containerized merchandise trade passed through West Coast ports in 2006, up from 42 percent in 1980.

Source: Department of Transportation, Bureau of Transportation Statistics. April 2007

Government and private forecasts of increased international trade and cargo expansion include double digit annual growth rates in the eastbound transpacific trade. West Coast ports are nearing capacity due in large measure to congested roads and rail lines. Ports have a very difficult challenge in trying to grow these links due to cost and environmental concerns and competition for space for other purposes, such as industry, housing, recreation and tourism.

Their East Coast counterparts, such as New York/New Jersey, Norfolk and Savannah, are on track to experience similar growth and have their own unique challenges, including channel dredging and adequate highway and rail access to the intermodal networks. It is expected that the improved Suez Canal and the

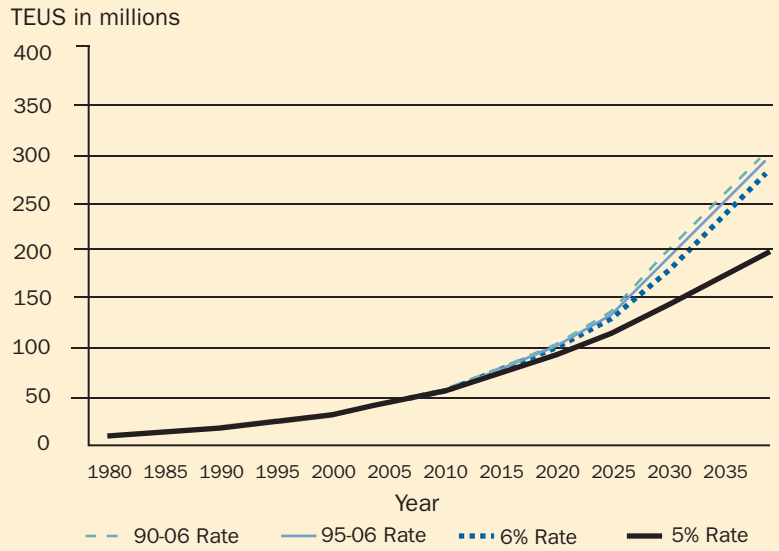
expanded Panama Canal will make all water routes from Asia more competitive. This will enable shippers to send more freight to and from East and Gulf ports on ever larger ships.

The bottom line: to sustain expected growth, it is estimated the U.S. must expand its overall port capacity by 10 percent annually. That is the equivalent of adding capacity equal to the Port of Oakland every year.

Large ports are challenged by mega-containerships, which may unload almost twice as many containers in a single port of call as compared to 10 years ago.

U.S. Port Container Traffic

projected to 2037



Source: U.S. Department of Transportation, Maritime Administration

In addition, large ports are further challenged by the size and capacity of the new generation of mega-containerships which may unload almost twice as many containers in a single port of call as compared to ten years ago. Of the more than 1,200 containerships being built for the global trade, nearly 200 are of the mega-containership variety. The implications for berthing delays, terminal congestion and pollution are obvious, especially given limited storage space and capacity at ports and intermodal connections.

These new containerships, as well as very large tank vessels, bulkers, and cruise ships are competing for increasingly scarce port infrastructure space and resources. Furthermore, critical channel maintenance and deep draft construction projects are not keeping pace with dredging requirements.

As a result, the number of ports capable of meeting the deep draft, cargo handling and intermodal transportation requirements of these larger, faster and more specialized vessels is limited.

Stress on the Nation's Intermodal System

Moving a large volume of cargo between ships, trucks, railcars, barges, or pipelines from origin to destination can produce congestion. Congestion is a systemic problem because it is not limited to ports but can have an impact on port throughput even hundreds or thousands of miles inland. As the transportation funnel narrows further, congestion increases, driven by the cargo surging through the Nation's ports.

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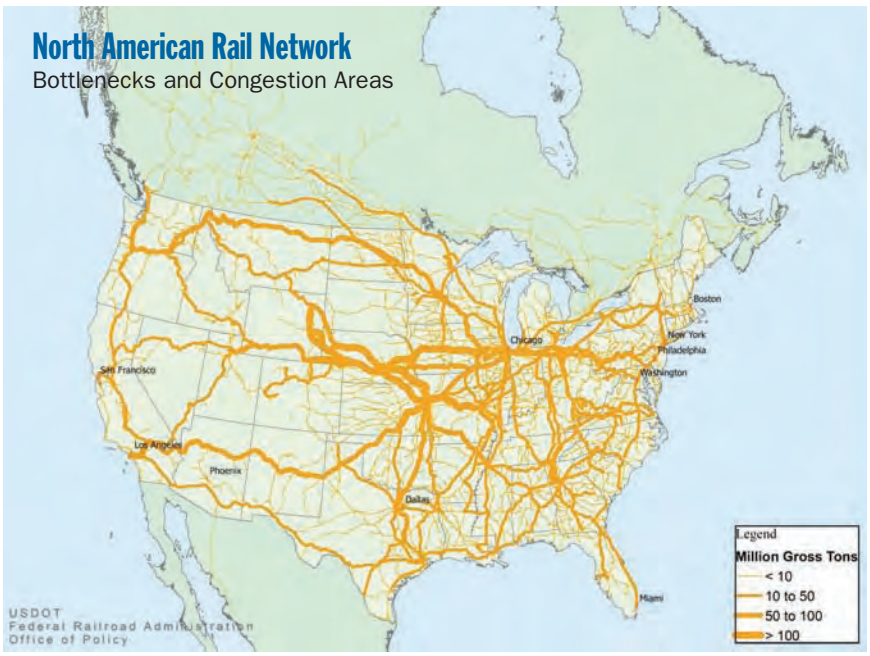
The growth in foreign trade and domestic freight movements threatens to overwhelm the current intermodal and shoreside transportation system. The inland freight distribution supply line suffers from a lack of capacity–whether it is not enough drivers for trucks carrying containers on gridlocked highways or a rail system that struggles to keep up with freight demand. Although ports and their intermodal connections are continually making improvements, any benefits can be offset by the rapid pace of growth in shipments and the relatively slow process of financing and constructing infrastructure.

When a problem occurs in one part of the system, it can have a ripple effect throughout both the waterborne and surface transportation network. System capacity and flexibility have been squeezed so tightly that a disruption on the West Coast can cause freight delays and shipment re-routing throughout the entire United States.

Vessel Calls at U.S. Ports, 1999-2006

Vessel Type	1999	2000	2001	2002	2003	2004	2005	2006
Tanker	17,279	18,535	18,387	17,320	18,503	19,316	20,118	22,577
Double Hull	6,942	8,742	9,568	10,045	11,903	12,925	15,802	18,076
Product	10,875	11,868	11,780	10,949	10,998	11,572	12,217	13,610
Double Hull	3,996	5,184	5,755	5,770	6,576	6,759	8,758	9,752
Crude	6,404	6,667	6,607	6,371	7,505	7,744	7,901	8,967
Double Hull	2,946	3,558	3,813	4,275	5,327	6,166	7,044	8,324
Container	16,625	17,410	17,076	17,138	17,287	18,279	18,542	19,509
Dry Bulk	11,946	12,013	11,628	11,112	10,271	11,631	11,406	12,558
Ro-Ro	5,073	5,542	5,712	5,632	5,191	5,317	5,663	6,319
Vehicle	3,072	3,646	3,646	3,605	3,113	3,065	3,652	4,177
Gas Carrier	683	708	739	739	926	916	969	971
Combo	767	856	770	761	666	459	414	344
General	4,354	4,318	4,076	3,894	3,915	3,967	3,935	4,096
All Types	56,727	59,382	58,388	56,596	56,759	59,885	61,047	66,374

Source: U.S. Department of Transportation, Maritime Administration



Source: U.S. Department of Transportation, Federal Railroad Administration

Recognizing Congestion's High Price

Congestion's heavy price is eventually passed on to the American consumer.

What about the cost of congestion? Every person in the country bears congestion's heavy price: close to $200 billion is incurred each year in lost revenue and wasted time and fuel, which is eventually passed on to the American consumer. Savings gained from economies of scale and other efficiencies, such as advanced vessel and cargo handling designs, are quickly wiped out if vessels are not fully loaded, there are delays in loading or unloading ships, highways are gridlocked, or rail systems are at capacity.

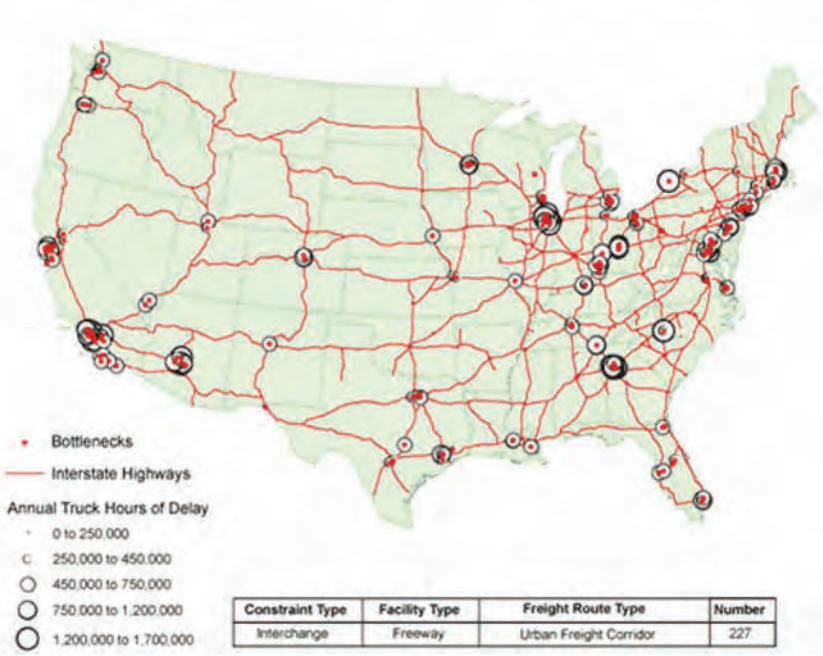
Congestion constrains not only growth but distorts business decisions. The lack of reliability in the transportation infrastructure drives up costs for retailers who must hold more inventory to counter supply chain delays. This can lead to increased prices for goods, which has a negative impact on businesses, consumers and the U.S. economy. It means lost export opportunities for American businesses, particularly agricultural products. These are but some of the problems congestion brings, but there are also solutions to them.

Taking a System-wide View

It is imperative to develop better and smarter approaches to moving cargo and people through the entire intermodal system and to their eventual destinations. That means we have to look at the entire system, not just the immediate vicinity of a port.

To this end, we must develop a framework to help guide decisions on Federal, state, local and private involvement and investment in the overall Marine Transportation System. This includes: looking at where the major waterside and shoreside bottlenecks exist; identifying the best way to eliminate these bottlenecks; estimating the public and private funds necessary to make a difference; and coordinating project execution.

Major Freight Truck Bottlenecks



Constraint Type	Facility Type	Freight Route Type	Number
Interchange	Freeway	Urban Freight Corridor	227

Source: U.S. Department of Transportation, Federal Highways Administration

The Agency has begun a major effort to examine the Marine Transportation System with the port as the nexus.

The Maritime Administration is doing exactly that. The Agency has begun a major effort to examine the Marine Transportation System with the port as the nexus. This is a significant step forward and includes reaching out to interested parties and the public, especially the many stakeholders of the Marine Transportation System and America's ports.

This effort will provide a national perspective on the many issues affecting the Marine Transportation System and port development, while including and incorporating objectives from the local and regional level. We are also examining the diversion of trade to other modes of transportation and nearby ports due to congestion and bottlenecks, as well as the ability of the ports to support a surge in military cargo during an emergency.

As a follow-on to this effort, the Maritime Administration is working with the port community, carriers, and shippers to identify new methods and technologies that will allow the United States to use its shoreside and waterborne transportation infrastructure to move freight and passengers in more cost-effective, safe, secure, environmentally friendly and efficient ways. Better use of these transportation systems will reduce tie-ups in ports and on roads and railways.

Finally, while the international market for maritime transportation services is relatively open, there are still instances where governments impose anti-competitive barriers that restrict market access for U.S. marine transportation interests. The United States concludes bilateral maritime agreements only in rare situations where such circumstances warrant action. We must work together to monitor America's trade agreements to ensure that they do not impair U.S. carriers' market access or distort the flow of cargo.

Gateway Presence

There is no better way to gain insight into the challenges facing the industry and finding ways to address them than by having a presence "on the ground."

The Maritime Administration is providing a presence at major U.S. gateway ports, starting with 10 of the largest ports on the West, East and Gulf Coasts, the Great Lakes and the inland river system. Offices are planned or already located in these critical areas. Replicating the model of the Agency's Gateway Office in Southern California, these offices work with headquarters staff, state and local authorities and a broad range of port, shipper and carrier stakeholders to cooperate on projects, identify Federal and state funding, and work on environmental and community challenges in the ports and their intermodal connections.

The Maritime Administration is focusing on the 10 major U.S. gateways, with offices planned or already located at these critical hubs.

These offices identify bottlenecks and ways to improve freight movement. They work with stakeholders to promote collaboration among Federal, state, local and private partners on challenges facing the Marine Transportation System in their areas of responsibility, focusing particularly on planning and environmental issues. These offices act as liaisons for the Agency to help ensure that measurable progress is made on specific projects as well as to bring Agency and Departmental expertise to the table.

The potential for these offices has been clearly demonstrated in the Maritime Administration's first Gateway Office in Southern California. That office has worked with public and private sector participants to better understand the con-

Gateway Offices

nection between improved cargo flow, economic vitality, community improvement and environmental sustainability. The effort has led to an interagency agreement to specifically address congestion in and around our nation's busiest port area.

The Gateway Offices are the Agency's day-to-day presence throughout the Marine Transportation System. They are critical to the viability and effectiveness of the Maritime Administration and its future programs.

The Maritime Administration is the lead federal agency in a public-private partnership with the Port of Anchorage to redevelop its port complex.

Port Development

Getting the most out of ports and their existing infrastructure must be a major focal point of state and local port interests. Port development has become a costly and time consuming process. Just obtaining the necessary permits can take years.

A good example of what can be done is the ongoing redevelopment of the Port of Anchorage. As a major gateway to the state, the Port of Anchorage has seen steady growth. It does, however, need improvements in order to accommodate larger ships with deeper drafts and state-of-the-art technology.

In an effort to speed up this process, the Maritime Administration was designated the lead Federal agency in a public-private partnership with the Port of Anchorage for the redevelopment of its port complex. This effort includes major infrastructure improvements to enhance the transportation of goods within the state.

The Port of Anchorage project includes the construction of new berths and piers. Newer, advanced container cranes, on-site rail and railroad trailers, together with a modern container yard will improve efficiency and reduce truck traffic. The end result will be a modern, safe and efficient regional port that streamlines the movement of goods into and out of south-central Alaska.

Because of the Maritime Administration's efforts, several years have been shaved from the permit and construction process. This multi-faceted approach to port revitalization can be replicated at other U.S. ports.

The Marine Highway: A Vital Link in the Nation's Economy

America is blessed with an abundance of navigable rivers, lakes, seaways and coasts. For much of the history of the United States, these waterways were the primary means of interstate commerce and transportation for goods and people. As a result, the majority of America's large metropolitan areas, as well as preponderance of the U.S. population, are located along the coasts and navigable waterways.

Over time, these waterways were first supplemented and then replaced by rail, road and air as the principal means of transportation in the United States. While the inland river system, Great Lakes and coastal fleets still move a billion metric tons of cargo between American ports each year, there is incredible marine capacity that remains unused.

The greater use of America's Marine Highways is one answer to congestion on our highways and railroads.

America's Marine Highways: A Solution

Ports and Navigable Waterways of the United States

Source: U.S. Department of Transportation, Maritime Administration

The greater use of America's Marine Highways is one answer to congestion on our highways and railroads. The use of vessels could reduce major bottlenecks, such as bridges and tunnels, as well as congested interstates, such as I-95 which parallels the U.S. Atlantic coastwise routes. Properly developed, the Marine Highway can greatly relieve the increased stress on the overall transportation system.

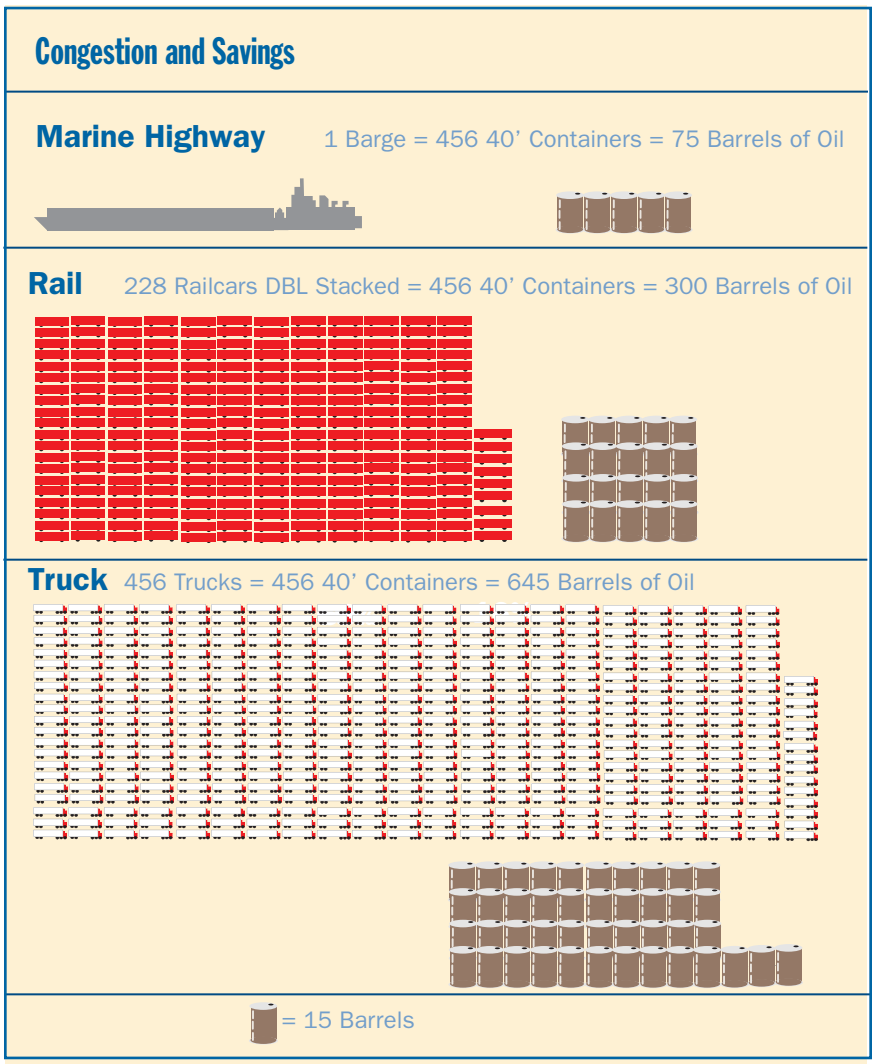
The use of Marine Highways can reduce overall fuel consumption and limit the amount of air pollution. Moreover, studies have shown the fuel efficiency and pollution reduction benefits by switching to newer, environmentally friendly vessels.

The Maritime Administration is working with U.S. shipyards to develop and promote new vessel designs and construction efficiencies to build and repair the vessels needed to expand the Marine Highway System.

Using the Marine Highways is cheaper too. However, a barrier exists in those areas in which the Harbor Maintenance Tax is imposed and collected. Efforts have been undertaken to address this impediment to greater use of U.S. waterways. Shippers and maritime community stakeholders have sent the message that the time for talk is over. They want to expand America's Marine Highway to ease landside congestion problems, improve transportation efficiencies and grow the economy.

The Maritime Administration supports the development of new North American Marine Highway services and aligning and integrating them into the national, state and local transportation planning process. The Agency is also working with U.S. shipyards to develop and promote new vessel designs and construction efficiencies to build and repair the vessels needed to expand the Marine Highway System.

Everyone must work together with transportation users and providers to identify and eliminate impediments to expanding the use of waterborne transportation; accelerate the shift from surface to waterborne transportation; and build support for such an innovative approach. Action cannot come soon enough.



Source: U.S. Department of Transportation, Maritime Administration

Public Private Partnerships

Funding for marine infrastructure projects cannot come from the government alone. In a time of tight Federal, state and local government budgets for the foreseeable future, improved and innovative private financing methods are an absolute necessity.

Public Private Partnerships–also known as P3s–are increasingly viewed as a major component of funding and developing a seamless, reliable and cost-efficient 21st century transportation system. Some of these partnerships are also involved in the actual management of these assets, such as ports and terminals.

Banks and private investment firms are already rushing to invest in private infrastructure, including highways, bridges and ports. States such as Texas, Virginia, Florida and Georgia are relying more heavily on private capital to expand their highway systems. Billions of dollars are flowing into these projects.

However, bringing an infusion of private capital to the marine transportation infrastructure cannot merely be a good monetary investment with a high rate of return for a few people. Rather, investments in vessels, facilities, ports and waterways must yield dividends for the Nation, including easing congestion, spurring economic growth and helping to increase America's presence within the global marine transportation marketplace. The Maritime Administration will be working to attract capital for the marine transportation sector as a good and solid investment in America's future.

Funding for marine infrastructure projects cannot come from the government alone.

Vision: The Buck Stops Here

At no other time since the early days of the United States has the country been so dependent on trade and marine transportation. It is imperative that the Maritime Administration work with public and private stakeholders to identify, broker and implement solutions to facilitate the movement of goods and people.

Together, we and our partners must examine and encourage the use of every available alternative to address the high level of transportation congestion due to booming trade and the increasing use of larger ships that currently exist. Without such collaboration, the problem of congestion will only grow and be a serious threat to America's economic prosperity.

It is critical to transform the intermodal transportation system–starting naturally with the ports, the nexus of the system–but not stopping there. Piece-meal or isolated fixes merely encourage "stove-piping" and kick the problem down the supply chain to a different mode of transportation.

A comprehensive and integrated strategy and implementation effort that considers how the transportation system works as a whole is needed to help ease congestion, enhance freight mobility, increase capacity, reliability and efficiency, improve service and reduce costs to government, shippers, operators and consumers.

Business and Workforce Development

While the marine transportation industry is increasingly global in nature, it is critically important to encourage and sustain American involvement and investment in it. This is important for the economy during times of peace and a matter of survival during times of war or national emergency. The maritime industry is also an important source of jobs and positive revenue for America's balance of payments. The Maritime Administration must preserve and expand the U.S. maritime industry and increase investment in U.S. marine transportation infrastructure, including domestic shipping, shipyards and maritime personnel.

Increasing America's Global Maritime Presence

Opportunities are still great and the Maritime Administration is ready to help the industry seize them.

The fortunes of the U.S. maritime industry have ebbed and flowed like the tide. During different periods of American history, this Nation has enjoyed a massive merchant fleet, support industries such as shipyards, and a large number of trained and experienced mariners and shoreside labor. Although times have changed, the opportunities before the industry are still great and the Maritime Administration is ready to help the industry seize them.

The Maritime Administration administers a number of statutory programs, such as the Maritime Security Program, cargo preference, shipbuilding loan guarantees, tax deferred funds, training of entry level licensed mariners and implementation of U.S. cabotage laws. These programs are intended to foster a strong merchant marine and protect American jobs and investment.

Cargo preference is a good example of how these programs can succeed. For example, in 2006, 118 U.S.-flag vessels carried preference cargoes which in turn, provided more than 5,500 mariner jobs and a larger number of shoreside maritime and transportation-related jobs. The cargo preference programs generated over $10 million revenue tons of cargo and $1.4 billion of ocean freight revenue. These cargoes represent from seven percent to more than 50 percent of some U.S. carrier's annual revenues and are vital to retaining vessels under the U.S. flag.

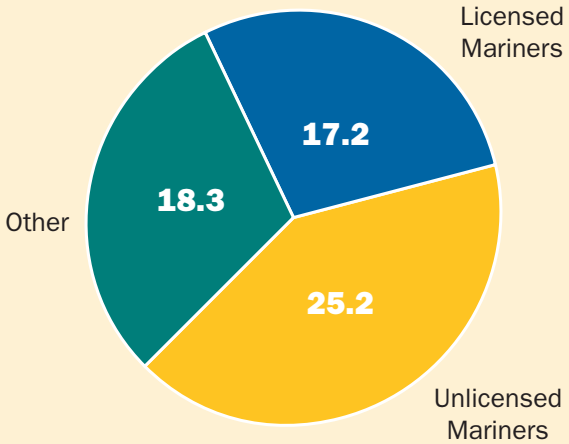
Maintaining a Strong Presence at Home

The U.S.-flag domestic fleet of more than 38,000 vessels transports about a billion metric tons of cargo between U.S. ports on the oceans, along the coasts, inland waterways and the Great Lakes. The business opportunities provided by U.S. cabotage laws, such as the Jones Act, have encouraged large investments in vesels, shipyard modernization and other marine transportation assets.

Over the last five years, U.S. domestic carriers have significantly upgraded their fleets, contributing to a 25 percent increase in the value of the industry's vessel assets, the highest five-year growth in 25 years. The U.S. Jones Act fleet and trades are strong and healthy. The fleet employs tens of thousands of Americans ashore and afloat. It is the backbone of America's merchant marine and a solid foundation upon which to build and expand the U.S. merchant marine into the future. At the same time, U.S. shipyards have made significant investments in infrastructure and building technologies to better serve the Nation's Marine Transportation System.

The U.S.-flag domestic fleet transports about a billion metric tons of cargo between U.S. ports on the oceans, along the coasts, inland waterways and the Great Lakes.

Occupations in U.S. Water Transportation, 2006
(in thousands of employees)



Source: U.S. Department of Transportation, Maritime Administration

In addition to being an essential link in our national transportation infrastructure, the domestic trade fleet is a critical component of America's military readiness. This is especially true for vessels in the non-contiguous trades to and from the mainland and Alaska, Hawaii, Puerto Rico and Guam. Eighty-five percent of the oceangoing vessels in the fleet are militarily useful.

Furthermore, of the more than 60,000 water transportation workers, almost 36,000 are mariners, and nearly 8,000 of these are qualified to crew Ready Reserve Force and Department of Defense sealift ships.

America's principal Marine Highway, the 25,000 mile U.S. inland and inter-coastal waterway system, is one of our greatest natural resources and adds $5 billion a year to the U.S. economy. Employing mostly tugs and barges, transportation on our inland waterways is the most economical mode of commercial transportation. Today's fleet of nearly 4,000 modern tugboats and towboats and more than 27,000 barges moves over 800 million tons each year of raw materials and finished goods and directly serves 87 percent of all major U.S. cities.

We need to look no further than the Great Lakes and Saint Lawrence Seaway to see how critical water transportation is to the Nation, and especially to the region encompassing New York, Pennsylvania, Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Ontario and Quebec. Water transportation is essential for the movement of industrial raw materials and grain from the Upper Midwest to regional and international markets.

This region is home to over 156 million people, about one-half of the combined U.S. and Canadian population, and possesses the greatest concentration of manufacturing in each country. The eight states in the region contributed 26 percent to the U.S. Gross Domestic Product in 2004. In 2005, U.S. intra-lakes trades totaled 153 million tons, of which 97 million tons moved in U.S. domestic trade; 56 million tons moved in U.S./Canada trade; and an additional five million tons in overseas trade.

U.S. shipyards also play an important role in bolstering our maritime presence. Not only do they build and repair the domestic fleet, but they have a significant impact on our national economy. Shipyards directly contribute to the output of the U.S. manufacturing sector and also purchase components produced by other industries throughout America. In addition, the shipbuilding and ship repair industry supports the growth and development of a skilled workforce.

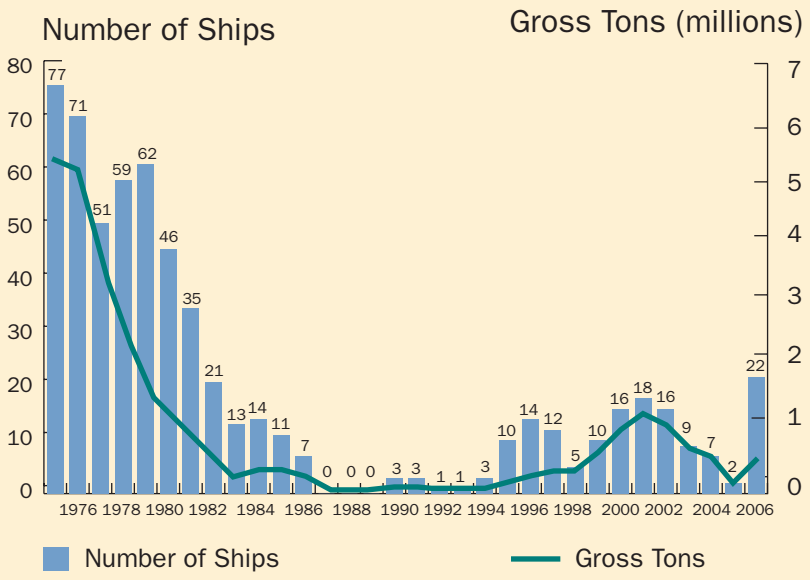
U.S. shipyards also play an important role in bolstering our maritime presence.

America's shipyards are also successfully building the most efficient and environmentally sound tankers and tank barges in the world to replace single hull vessels retired under the Oil Pollution Act of 1990 (OPA 90). Almost $5 billion worth of double hull construction and conversion work will take place by 2015 to meet the double hull requirement under OPA 90.

A good example is the Aker Philadelphia shipyard. Once an abandoned U.S. Navy shipyard, it is scheduled to deliver six vessels with a combined value of $700 million and has a backlog of over 11 vessels worth in excess of $1 billion. In addition, the shipyard went from zero jobs in 1997 to a workforce of over 1,300 employees today.

Commercial Shipbuilding Orderbook History

(Ships of 1,000 Gross Tons and Over as of December 31, 2006)



Source: U.S. Department of Transportation, Maritime Administration

The Maritime Administration recognizes that the construction of vessels for the Marine Highway System could result in significant new construction and repair in U.S. shipyards. The Agency's support for innovative vessel financing and shipyard modernization will be necessary for U.S. shipyards to accommodate the expansion of the Marine Highway System.

U.S.-flag drill rigs and support vessels play a key role in the development of oil and gas resources contained in the Outer Continental Shelf (OCS) area, which accounts for about 20 percent of our natural gas production and about 30 percent of our domestic oil production. Undiscovered OCS resources could potentially account for another 60 percent of the oil and 40 percent of the natural gas resources of the United States. The Offshore Marine Services Association (OMSA) has announced that its members will build $3 billion worth of vessels to service this market over the next several years.

People are a Critical Element

Without trained and qualified people, the marine transportation industry cannot perform its essential role in the U.S. economy. Such a workforce must include licensed and unlicensed seamen, shoreside and shipyard workers and managers and operators of ships and facilities. This need is especially acute given a global shortage of skilled seafarers. The Agency must support the recruitment and retention of American seafarers for our domestic and international trades.

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To this end, the Maritime Administration continues to make a significant investment in maritime training and education. The Agency supports numerous outreach and continuing education programs, six state maritime academies (California, Great Lakes, Maine, Massachusetts, New York and Texas) and the U.S. Merchant Marine Academy.

Graduates of these academies are noted for their skills and accomplishments on sea and on land. They are highly sought-after and valued employees of both the domestic and global marine transportation industries. These programs must be expanded to address domestic and international trade labor shortages for licensed officers.

While these schools are the Nation's principal source of entry-level merchant marine officers, called licensed mariners, needed to help replenish the Nation's pool of more than 160,000 jobs directly in the water transportation and port services segment of the economy, U.S. maritime labor unions play a significant role in ensuring the availability of entry-level unlicensed mariners as well providing refresher and upgrade training. The unions provide this instruction through advanced training facilities located on the East and West Coasts and the Great Lakes region. These schools are essential to the retention and expansion of a highly-skilled seagoing workforce and their programs should also be expanded to satisfy employer needs.

The challenge is clear. Booming trade, a strong U.S. labor market and ever-changing technology have created a shortage of shoreside and shipboard workers in the maritime industry. U.S. shipyards are facing a critical labor shortage. High-paying jobs exist in shipyards, terminals, and in company offices, but often go unfilled. The Maritime Administration is committed to working with the U.S. Department of Labor to develop and implement new recruitment and training programs to meet shipyard demands for a skilled workforce. The Maritime Administration is also collaborating with employers, labor organizations and the Federal and state Departments of Labor to develop and implement programs to recruit and retain skilled workers for ashore and afloat.

Energy Security

The Maritime Administration actively pursues voluntary agreements to employ U.S. citizens on the vessels serving offshore LNG receiving facilities.

The Deepwater Port Act authorizes the Secretary of Transportation through the Maritime Administration to approve licenses for offshore oil and liquefied natural gas (LNG) receiving facilities, known as deepwater ports. The Maritime Administration is working with the private and public sectors to increase the number of highly qualified U.S.-citizen mariners with LNG training and skills to enter this service, thereby bolstering the safety, security and efficiency of this vital energy sector. As part of the licensing process, the Maritime Administration actively pursues voluntary agreements to employ U.S. citizens on the vessels serving offshore LNG terminals.

In an innovative public-private partnership that the Maritime Administration championed with the international LNG industry and maritime labor, companies will provide training and employment opportunities for U.S. citizen officers, cadets and unlicensed mariners aboard their tanker fleet and at their planned deepwater port terminals in the United States. These agreements represent sound public policy and open up vital training and employment opportunities for U.S. mariners in the LNG industry.

Vision: Laying Down the Foundation for Change

The core programs of the Maritime Administration will continue to provide tangible support to the entire U.S. marine transportation industry, in particular the commercial fleet. While a great deal has already been accomplished, the Maritime Administration is not satisfied that sufficient progress is being made. More must be done in a coordinated manner to ensure a strong American presence in the domestic and international trades and to expand opportunities for American businesses and workers. The United States must take advantage of the opportunities in the current world marketplace and return America to a dominant position in maritime transportation. The Maritime Administration will work to facilitate this progress to ensure a vibrant U.S. industry and maritime workforce.


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National Security

The U.S. merchant marine has been an integral part of America's defense establishment since the founding of the Nation.

The U.S. merchant marine has been an integral part of America's defense establishment since the founding of the Nation. America's first naval officers and seamen came from the merchant fleet and a majority of the naval vessels used during the Revolution were converted merchant ships. Since then, time and again the men, women and vessels of the merchant marine have supported America's armed forces in periods of war and national emergency. Thousands of American mariners have died, been wounded or taken prisoner during those conflicts.

Since the 9/11 terrorist attacks, the United States learned that it faces a growing number of security threats in many far-flung parts of the globe, but also close to home. The entire concept of national security is changing; it no longer begins and ends at the Nation's shorelines.

Those who would do great harm to the United States, its people and interests pose a real danger. Safeguarding freedom and security involves a global commitment. The U.S. merchant marine has had and will continue to take a leading role in that struggle in times of peace as well as war and national emergency.

A Proud Tradition Lives On

The U.S. merchant marine has a proud history of protecting the Nation and helping to win the peace. For more than two centuries, our national defense has relied heavily on the U.S. commercial sector–and continues so today. This includes using ships as naval auxiliaries, vessels to transport military personnel and supplies and trained seafarers for naval service.

For the Marine Transportation System today, defense mobilization still equates to having a strong industrial base as well as sufficient U.S. commercial ships and civilian crews available to meet defense sealift requirements, but now also includes the shoreside equipment and infrastructure necessary to keep the intermodal system moving.

Within the Maritime Administration, there are four core programs that support Department of Defense sealift requirements:

The United States simply cannot respond to conflicts or emergencies overseas without sealift.

- The interlocking Maritime Security Program and Voluntary Intermodal Sealift Agreement Program provide the Department of Defense assured access to U.S. commercial ships and crews as well as their intermodal equipment and facilities. The 60-vessel Maritime Security Program also provides employment and training opportunities to U.S. seafarers in order to ensure their availability in times of national crisis.

- The National Defense Reserve Fleet (NDRF) comprised of government owned militarily-useful cargo vessels that can be used in time of national emergency. The NDRF includes the Ready Reserve Force (RRF) made up of vessels in an enhanced state of readiness that permits them to be underway to support military operations in only a few days time.

- The graduates of U.S. maritime academies with service obligations who are essential to ensuring that sufficient officers are available to meet both commercial and national defense requirements.

- The National Shipping Authority that permits the Maritime Administration to assume responsibility for the Nation's vessels and ports during a national emergency. This responsibility includes the peacetime planning oversight of 15 DOD-designated strategic commercial ports needed by the military for deployment during contingency operations.

The United States simply cannot respond to conflicts or emergencies overseas without sealift. It is figuratively and literally a lifeline to U.S. armed forces and their missions. This is being proven once again during the current Global War on Terrorism.

The U.S. marine transportation industry has established itself as an indispensable and effective tool for projecting and sustaining military operations, no matter where they may be. Under the leadership of the U.S. Transportation Command, U.S.-flag ships have carried more than 90 percent of the materiel destined for Middle East combat theaters. This includes RRF vessels operated by the Maritime Administration under the control of the Military Sealift Command (MSC) and MSC's own surge assets. The Maritime Administration works closely with the U.S. Transportation Command and the MSC to ensure that ships are available to support the military.

It is also essential that the active commercial U.S. flag fleet and its intermodal systems are available to serve the United States' military and economic needs. The Maritime Security Program and the Voluntary Intermodal Sealift Agreement Program are critical to ensuring that a core of U.S. vessels are available to transport munitions, food, weapons and equipment to support our troops.

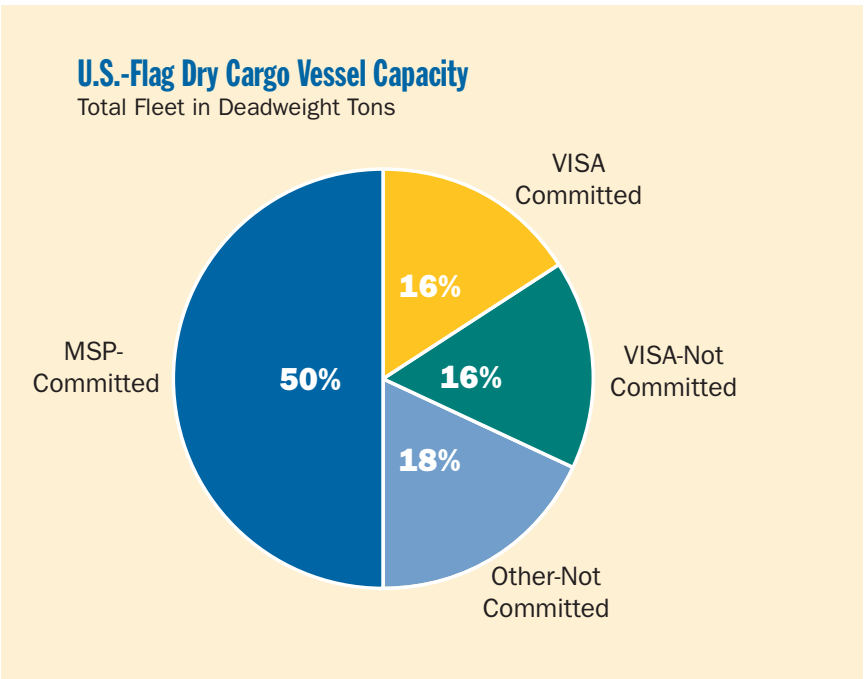
More needs to be done to expand the U.S. merchant fleet to ensure that vessels, seafarers, facilities and equipment are available to serve national defense and economic needs during times of national emergency. The Maritime Administration is reaching out to stakeholders to initiate plans to build on the core industry that currently exists. This will be a long-term effort that is essential to our economy and national defense.

Maritime Security Program and Voluntary Intermodal Sealift Agreements

Industrial globalization and consolidation have led to the decline of many traditional maritime fleets, including the U.S.-flag general cargo fleet.

Defense sealift continues to rely heavily on the U.S. commercial sector. The National Security Sealift Policy of October 5, 1989, which remains in force today, states that a vital objective of the Nation is to ensure that sufficient military and civil maritime resources will be available to meet defense deployment and essential economic requirements.

Industrial globalization and consolidation have led to the decline of many traditional maritime fleets, including the U.S.-flag general cargo fleet. In order to ensure that an active U.S. fleet of militarily-useful general cargo ships will continue to adequately serve both the economic and national security objectives of U.S. maritime policy in the future, the Maritime Administration administers the Maritime Security Program (MSP) and Voluntary Intermodal Sealift Agreement (VISA), a complementary sealift readiness program approved by the Secretary of Defense.



Source: U.S. Department of Transportation, Maritime Administration

The MSP and VISA programs work together to provide militarily useful commercial vessels and the crews to operate them (and Government-owned reserve vessels). MSP vessel operators receive financial support to partially offset the higher operating costs of keeping these vessels under the U.S.-flag and also obtain priority consideration in the award of DOD peacetime cargoes.

Through MSP and VISA, U.S.-flag vessel operators have made an extraordinary commitment. Over 80 percent of all U.S.-flag dry cargo ships are enrolled in one or both programs, obligating two-thirds of the carrying capacity of the entire U.S.-flag dry cargo fleet.

The vessel capacity, crews and intermodal systems made available through MSP and VISA advance the Department of Transportation's Security, Preparedness and Response strategic goal by ensuring that the transportation system can respond to emergency needs. These programs also help ensure that DOD meets its strategic goals. Moreover, the design of MSP and VISA provides for a coordinated seamless transition from peace to war or national emergency while these vessels continue serving in the commerce of the United States.

Since 1976, the Ready Reserve Force fleet has been an important component of the Maritime Administration's sealift capability.

The MSP also provides support for U.S.-flag tankers operating in international trade. These tankers as well as others participate in the Maritime Administration-sponsored Voluntary Tanker Agreement (VTA). The VTA, like VISA, is a program designed to make commercial vessels (in this case, tankers) available to support contingency operations of DOD.

For the Marine Transportation System today, defense mobilization still equates to having sufficient U.S. commercial ships and civilian crews available to meet defense sealift requirements. Prior to implementation of the MSP and VISA programs, projections indicated that the continued decline in number of U.S.-flag general cargo vessels would reduce the number and types of vessels available to the U.S. military to unacceptable levels. Together these programs have resulted in an improvement in the amount of U.S.-flag sealift capacity that is readily available for U.S. military use. From a qualitative standpoint, these readily available U.S.-flag vessels are also more modern and the mix of vessel types better meets the needs of the military.

Ready Reserve Force

Since 1976, the Ready Reserve Force (RRF) fleet has been an important component of the Maritime Administration's sealift capability that supports Department of Defense sealift requirements.

Sized to support national emergencies, the RRF includes Roll-on/Roll-off (RO/RO) vessels designed to carry wheeled and tracked vehicles, heavy lift vessels, specialized Offshore Petroleum Discharge Ships (OPDS), Auxiliary Crane Ships, three special mission and two Aviation Logistic Support ships. As of October 1, 2007, the Maritime Administration also maintains eight Fast Sealift Ships as surge vessels, bringing the RRF to a total to 52 vessels. The RRF provides approximately half of DOD's "early surge" requirements for 10 million square feet of sealift. DOT

also owns its own sealift vessels that provide the other half of Federally-owned surge sealift capacity.

This government-owned surge fleet provides jobs to U.S merchant mariners. More than 90 percent of the vessels have a nucleus crew of 10 mariners per ship, called a Reduced Operating Status (ROS) crew. These highly skilled mariners work on a daily basis onboard the ships which they also operate during an emergency When activated, the ROS crews are supplemented by commercial mariners available through U.S. maritime unions.

In the first Gulf War, 72 RRF ships carried nearly 700,000 tons of unit cargo on 123 voyages to the area of operations. Since then, the RRF has supported more than 400 operations and training exercises for the Department of Defense, including 267 missions for Operations ENDURING FREEDOM/IRAQI FREEDOM and emergency relief for U.S. citizens after Hurricanes Katrina and Rita, serving over 269,000 meals and providing more than 83,000 beds for workers.

The RRF has a 99 percent success rate in activations which surpasses its goal of 80 percent of RRF readiness at any given time. Operating RRF vessels maintain a 98 percent operation responsiveness rate following activations, making them seapower's reliant partner.

RRF ships and crews have proved their mettle and value here at home during the immediate aftermath of Hurricanes Katrina and Rita.

Civil Response

Disaster relief missions closely parallel the RRF's military support mission. RRF ships have inherent capabilities needed to support recovery efforts. These include petroleum or potable water storage, large areas suitable for shelters or field-grade hospitals, electrical power generation capability, emergency communications, dining facilities, command and control platforms and room to carry large equipment. As noted, these vessels and crews have proved their mettle and value here at home during the immediate aftermath of Hurricanes Katrina and Rita.

These hurricanes demonstrated the utility of the Maritime Administration's assets in responding to both national and homeland security needs. The Maritime Administration is working with Federal, state and local emergency responders to determine the Agency's role in future events and to plan for those responsibilities. Given that the majority of the American people live on or near the water, the Maritime Administration can play a critical role in recovery efforts after a natural or manmade disaster.

The National Shipping Authority

The National Shipping Authority (NSA) was established in 1951; the Maritime Administrator is its Director. The NSA organization includes an operations center staff, NSA foreign representatives and Federal Port Controllers (FPC).

During a national emergency, the Maritime Administration may activate the NSA. The NSA has authority to:

- activate ships from the RRF
- requisition ships from the privately-owned commercial fleet
- charter available ships on commercial terms
- obtain shipping capacity and services under voluntary agreements
- obtain the priority or exclusive use of berths, containers and chassis
- provide War Risk Insurance

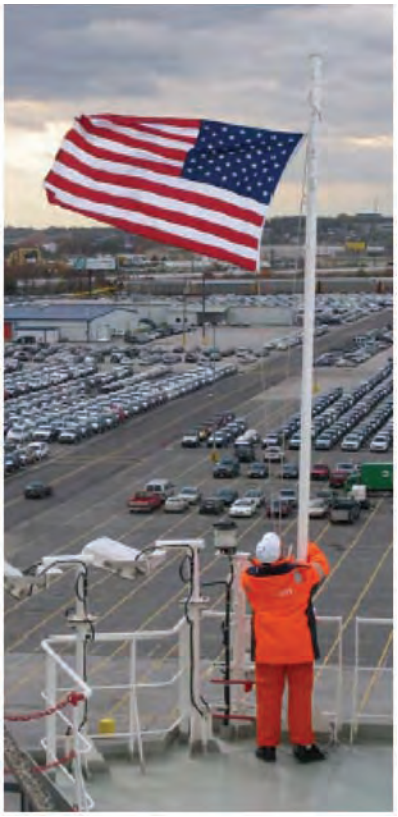
The NSA mission may be adapted to other purposes such as homeland security crises and domestic disruptions.

Federal Port Controllers are identified at strategic ports. The FPCs coordinate ship and cargo operations at the port. FPCs also assist the U.S. military in loading combat unit equipment during deployments, while minimizing commercial disruption.

The NSA in its current configuration was designed to support U.S. operations in a national defense emergency or war. However, the NSA mission may be adapted to other purposes such as homeland security crises and domestic disruptions.

The Maritime Administration will examine taking the NSA beyond the Cold War emphasis on managing the civil shipping industry for use in a major armed conflict. It will make the NSA more relevant and responsive by adding flexibility to its structure to assist in the aftermath of a natural or manmade disaster and acts of terrorism.

Recent history proves that preparedness can help the Nation in times of disaster and emergencies at home.



Vision: Standing Ready

Since our Nation began, the U.S. marine transportation industry has been an integral part of America's security. The history lessons taken away are clear. The United States cannot address military conflicts overseas without sealift, strategic commercial ports and an efficient and reliable intermodal networks. Recent history also proves that these same capabilities and commitment to preparedness can be applied in innovative ways to help the Nation in times of disaster and emergencies at home.

The Maritime Administration will continue to play a major role in ensuring that these assets are available. It stands ready. However, sealift and emergency planning cannot be seen in isolation; they are part of a much larger transportation system intended to serve both national security and economic needs.

In 2006, America celebrated the 50th anniversary of the launch of the Interstate Highway System. This signature national infrastructure project fueled one of the greatest economic booms the Nation has ever known. Yet, few remember that it was also created to meet national security and emergency preparedness needs. Today, there is yet another opportunity to match security and prosperity. It is on the marine highway.

Environment and Compliance

The maritime community must obey an ever-growing list of international regulations and conform to building and operating standards affecting the environment.

For most Americans, compliance means such routines as filing and paying taxes, obeying “No Smoking” signs, stopping at a red light and adhering to other traffic regulations. For many shoreside businesses, it could mean obeying workmen’s compensation and child labor laws, meeting health, occupational, building and other safety codes, or complying with anti-discrimination and fair labor practices.

However, for the marine transportation community–on both sea and land–compliance means more than just satisfying domestic workplace rules and meeting norms of interpersonal conduct. Rather, the maritime community must also obey an ever growing list of international regulations and conform to building and operating standards affecting not only the environment but extending to global security and safety concerns, as well.

In its recent Agency-wide realignment, the Maritime Administration created a new Office of Environment and Compliance. This office is committed to assisting industry in affecting the development of regulations related to safety, security and environmental protection as well as developing best management practices to ensure compliance.

Safety

In the last century, the "safety first" mantra was at the heart of U.S. marine transportation industry operations. Today, it still is a top priority, although it now shares that preeminent position with concerns over security and the environment.

Today, the industry complies with literally hundreds of safety regulations, including: construction specifications of U.S.-flag ships; the most strict shipyard safety standards in the world; rules on how those ships are operated; and procedures on the handling of cargo in ports. Mariners must meet strict training requirements and pass rigorous exams.

Domestic maritime safety regulations are issued and enforced by a number of Federal and state agencies, most notably the U.S. Coast Guard, but also the Occupational Safety and Health Administration. The U.S. marine transportation industry complies with International Maritime Organization (IMO) safety agreements and protocols to which the United States is a signatory and International Labor Organization (ILO) maritime labor conventions.

Safety assurances are increasingly a prerequisite for the day-to-day operations of the marine transportation industry—especially close to shore.

The Maritime Administration has a key role in developing both the IMO rules and the International Organization for Standardization (ISO) standards by reason of its expertise in ship design and engineering, operations, repair and maintenance experience; its relationship with the marine transportation community; and its contribution of ships for testing platforms. The Maritime Administration is a member of several technical committees including both the IMO and ISO committees.

The Agency is a principal in the interagency Ship Structure Committee (SSC). Currently, SSC is examining wind and wave loads and their impact on ship and offshore structures; the fatigue and fracture characteristics of composite, steel and aluminum building materials; hull inspection and maintenance issues; and detail design and fabrication technologies. The Agency also works in concert with the American Bureau of Shipping (ABS) Technical Committees to review proposed rule changes governing shipbuilding.

Furthermore, the Maritime Administration represents the U.S. Navy Program Office overseeing various technical panels of the National Shipbuilding Research Program/ Advanced Shipbuilding Enterprise (NSRP/ASE). This program is designed to address technical, management, training and other issues related to military and dual use vessel construction.

Maritime safety also takes on a much broader meaning in the context of today's global economy. Safety assurances are increasingly a prerequisite for the day-to-day operations of the marine transportation industry–especially close to shore. A good example is the energy transportation sector which brings foreign oil and liquefied natural gas to the United States to literally fuel the economy.

Despite the dramatic growth in the use of LNG worldwide, at present the continental United States has only five operational LNG import terminals, with a capacity equal to only six percent of the Nation's gas consumption. Keeping this vital ener-

gy lifeline open will require allaying community fears by demonstrating operational safety at levels not seen before. The Maritime Administration is at the forefront of the safe and secure transportation of LNG, with an emphasis on licensing new, safe offshore ports that will be used by LNG tankers.

In the shipbuilding and repair industry, workplace safety is a priority, and shipyards are committed to reducing injuries and accidents. In recent years, the industry and OSHA have formed and renewed partnerships to focus on specific areas of shipyard safety, improve communication between OSHA and the shipyards and enhance the safety of shipyard workers.

It is evident from these partnerships that all sides recognize the value of establishing a collaborative relationship in order to foster a safer and more healthful working environment at America's marine transportation, shipbuilding and related industries. Without this collaboration, America could not build, and the marine transportation industry then operate, the safest and most technologically advanced vessels in the world.

To sum up, the United States needs real leadership when it comes to integrating these various requirements and regimes. The goal is to address public concerns about safety in the marine field, while still allowing efficient operations. The newly aligned Maritime Administration is working with stakeholders to not only develop such requirements but to find the most efficient and effective methods to actually implement them.

Environmental Protection for Maritime Interests

The Maritime Administration is committed to high standards of environmental excellence in the management of its own ships as well as those in its ship disposal program.

The maritime transportation industry has increasingly become the focus of new environmental rules and regulations. Civil and criminal litigation against maritime interests has increased, resulting in judicial decisions that have widespread impacts on maritime operations. The Maritime Administration is committed to high standards of environmental excellence in the management of its own ships as well as those in its ship disposal program. It is also committed to encouraging and supporting environmental compliance efforts by the maritime community generally.

The maritime industry must now comply with a broad array of environmental requirements in the areas of air and water quality, hazardous waste disposal, and aquatic species protection, including preventing the introduction of harmful invasive species. However, the mobile and temporal nature of the maritime industry requires that standards be set at the international and national levels so that mobility is not hampered.

Vessels that transit through many different countries and ports in different parts of the United States should not be expected to meet different and often conflicting rules and regulations. Further, burdensome local and state regulations may result in diversions of some ships to ports in neighboring countries. Therefore, the Maritime Administration plays a key role in asserting the need for consistent, uniform international and national laws and policies necessary for the protection of the environment.

Concerns relating to air quality in ports have increased as other sources of air pollution have been addressed. Diesel fuel burned by ships, while very efficient, produces sulfur dioxide, nitrogen oxide and particulate matter. Ships continue

to burn diesel while sitting idle in port; therefore, the Maritime Administration is leading national and international efforts to reduce the burning of fuel from idle ships through new technologies and fuels.

It is also encouraging cooperative research programs and participation in regional and international bodies that are attempting to solve these problems. The Agency has been involved in testing of technologies such as “cold ironing” which allows a retrofitted ship to plug into a port’s electrical system and turn off its engines, thus reducing air emissions in the ports.

These efforts require collaboration between the public and private sectors to address environmental and congestion concerns and to call attention to the important linkage between marine transportation and local economies. An example of such an initiative is the Southern California National Freight Gateway Collaboration, which has brought together many stakeholders to develop solutions to environmental and congestion concerns in Southern California.

The Maritime Administration is also working with the shipbuilding industry to find technological solutions to environmental problems associated with the construction and design of ships. Shipbuilders can help solve ballast water problems through new shipbuilding designs and technologies. In addition, discharges associated with shipbuilding must be handled properly. Shipbuilders working closely with both the Maritime Administration and the Environmental Protection Agency (EPA) can develop new means of dealing with ship waste.

Aquatic nuisance species have been identified by the International Maritime Organization as a substantial threat to the world’s oceans and waterways.

The Environment—Aquatic Invasive Species, Ballast Water and Hull Fouling

While carrying goods that people want and need, vessels also can carry unwanted travelers–non-indigenous species. They are transported in ballast water, on vessel hulls and decks, or even in shipping containers. Once introduced, they can displace native species causing harm to the local ecosystem and commercial and recreational fishing.

These aquatic nuisance species have been identified by the International Maritime Organization as a substantial threat to the world’s oceans and waterways. However, ballast water must be carried in order to insure safe and efficient vessel operation by providing balance and stability to ships.

The Maritime Administration continues to provide leadership on both ballast water policy and treatment technology as they affect marine transportation and freight movement. Although not mandated to do so, the Agency has stepped in to do its part. The Maritime Administration provides its ships as testing platforms for promising technologies for ballast water treatment.

In 2006, the Baltimore-based *Cape Wrath* and *Cape Washington* were modified to allow skid-mounted technologies easy access to the ships' ballast water systems, without disrupting engine room operations. The Agency is currently in talks with the State of Maryland for developing a long-term testing program for technologies for ballast water treatment. IMO-compliant testing of a treatment technology is scheduled to commence in early 2008.

As in other areas, the Maritime Administration participates in the development of laws and standards both at the national and international level related to ballast water management and hull fouling. It is vital to the Nation to harmonize environmental protection with healthy commerce.

The Environment– Ship Disposal

The Maritime Administration has a unique perspective and interest in international solutions designed to affect ship recycling.

Environmental concerns related to ships do not end when they cease operation. The Maritime Administration retains the National Defense Reserve Fleet, a reserve of ships that may be activated to meet shipping requirements in national emergencies. Along with the custody of these ships, comes the responsibility of properly disposing of them once they become obsolete. The Maritime Administration continues to pursue all feasible disposal alternatives.

The domestic ship recycling industry (an employer of some 3,000 trained and skilled workers) is heavily dependent on the supply of the Maritime Administration ships and the continued robust market demand for ferrous and non-ferrous scrap metal by both domestic and foreign smelters. The Maritime Administration works closely and cooperatively with the EPA and OSHA to ensure that domestic ship recycling facilities have the capability of dismantling ships in a manner that protects the environment, worker safety and health.

Moreover, as a ship owner, operator and ship disposal agent for the Federal government, and as a representative of a ship recycling nation, the Maritime Administration has a unique perspective and interest in international solutions designed to affect ship recycling. With this unique perspective, the Agency has an opportunity to share its complex challenges, experience and accomplishments as a basis for shaping ship recycling processes that will ultimately improve environmental and worker protection standards on a global scale.

Security—Thinking Security for Transportation

The paradigm for security permanently changed for the United States and the world in the aftermath of September 11th. Concerted efforts to improve security have been undertaken not only in America's 300 ports and 3,700 cargo and passenger terminals, but globally as well. Our Nation is part of a global transportation system. Our economic prosperity and our global efforts to secure the transportation system are now inextricably linked with our trading partners around the world. Today, more than any other time in our history, the global transportation system is a foundation for prosperity.

Securing the Marine Transportation System includes the full spectrum of prevention, detection, response, and recovery.

Securing the Marine Transportation System includes the full spectrum of prevention, detection, response and recovery. The challenge is to enhance commercial mobility to meet future growth while decreasing the risk of a transportation incident, whether it is natural or manmade.

Resiliency in the transportation system decreases the vulnerability, and hence the risk of an incident impacting the economic security of the United States. Knowledge of the conditions and performance of the transportation system provides a means for Federal, state, local, and private stakeholders to prioritize resources to improve the efficiency and resiliency of transportation. This means we must have transparency and accountability for public private partnerships to manage our disparate and competitive distribution systems.

With this in mind, the President devised a National Strategy for Maritime Security (NSMS). One key element of this new initiative is the Global Maritime Situation Awareness program (GMSA) in which the Maritime Administration plays an important role.

GMSA provides a collaborative information sharing environment within the government to support what has been termed "Maritime Domain Awareness." It utilizes the "eyes and ears" of the maritime industry as the first line of defense in support of the War on Terror by reporting suspicious activity observed around the world during the course of normal commercial, maritime operations. The Maritime Administration holds a position of leadership, in concert with the Department of Defense and the Department of Homeland Security, in organizing, disseminating and publishing the critical intelligence harvested from industry sources by this interagency cooperative venture.

It could well be said that the best asset in the preparation of the maritime industry to meet security threats is people.

The Maritime Administration also plays a significant role in providing security training for mariners and shore-based maritime personnel. Agency assets, including government-owned vessels and the facilities of the U.S. Merchant Marine Academy, are used for such training. We also support the State Academies and union schools in their efforts to educate mariners in this area of security. It could well be said that the best asset in the preparation of the maritime industry to meet security threats is people.

One obstacle to success in this regard is, however, the inconsistent array of rules and regulations applicable to both vessels and ports to reduce vulnerabilities. Once again, the realigned Maritime Administration is collaborating with other government agencies and industry to develop a rational response to security threats in the form of international standards for managing these threats.

The Maritime Administration can help identify and manage risk and ensure that the Nation's Marine Transportation System security plans reflect the real world of the commercial marine transportation industry. The Agency can work to ensure that the implementation costs of these vital security enhancements to the Marine Transportation System do not unduly burden or impede the flow of commerce into the Nation.

Vision: An Integrated Approach to Compliance

It often comes as a surprise to those outside of the industry, but the Maritime Administration is not a regulator, nor does it enforce compliance with regulations.

The Agency does not issue safety or other rulemakings, nor does it enforce compliance with such rules or have the power to force industry to embrace its own voluntary consensus standards. It is not the policeman on the marine highway issuing citations for safety infractions or a department of motor vehicles technician measuring vehicle emissions.

With its broad reach across industry from the classroom to the shipyard to the deck of an operating vessel, to the work force supporting the Marine Transportation System, the Maritime Administration can work to see that international, Federal, state and local programs are being developed and applied harmoniously and effectively. But its role does not stop there. As both a vessel and facility owner and operator, the Maritime Administration provides honest, objective and experienced guidance in domestic and international forums regarding industry issues and policy development.


PROTECT THE ENVIRONMENT
NO SMOKING
OVERSEAS LONG BEACH

The Way Ahead

The Maritime Administration understands the full scope of the global marine transportation industry and speaks its language. It can advocate best practices to ensure the implementation of methods and technologies that will address today's and tomorrow's challenges and opportunities. In fact, this is already happening today.

Moreover, the Agency's current realignment will not be a one time event. Rather, it will be an iterative process by which the Maritime Administration regularly assesses its effectiveness as a leader and advocate for industry. The strategic position it now enjoys should never be taken for granted. Instead, every conscious effort should be made to strengthen its critical role in facilitating a safe, environmentally friendly and competitive U.S. maritime industry.

The Agency understands the full scope of the global marine transportation industry and speaks its language.

To that end, existing industry partnerships must be revitalized and strong new ones formed that will support, not inhibit, a robust maritime industry. With its industry partners, the Maritime Administration must participate in and encourage the innovative research and development that will show the way to new approaches and new opportunities for industry growth without in any way compromising its obligations to provide a safe, secure and environmentally responsible marine transportation system.

The Maritime Administration has a lead role in the advancement of the United States' 21st century marine transportation system. A system that will:

- Support the growing importance of international trade to the continued prosperity of the United States by easing congestion throughout the intermodal transportation network–from door to door
- Enhance America's leadership and prominence in the international marine transportation community while continuing to promote a strong domestic merchant marine, a highly skilled workforce and making better use of the Nation's marine highways
- Promote U.S. shipbuilding and repair facilities
- Stimulate competition, innovation and efficiency and involve the private sector more fully in the financing, development and management of transportation infrastructure
- Meet national security transportation needs no matter where in the world a conflict may arise
- Help overcome impediments to maritime system growth while addressing the concerns over safety, security and the environment

The inevitable creation of this 21st century marine transportation system will come about more effectively as a result of this Agency's efforts. These efforts will not solely be focused on the development or application of new technology, building bigger ports or smarter rails and highways. The focus will be, as is more appropriate, the execution of the Agency's mission and the building of a consensus and commitment to make meaningful progress in improving the U.S. Marine Transportation System. This will result in a seamless and reliable network of transportation services.

All parties, including federal, state and local governments, shippers, operators and ultimately, consumers must recognize that such a system is critical to the economic future of the United States and their future well-being. The Maritime Administration serves to foster this greater understanding.

As it has done for more than 50 years, the Maritime Administration functions to bring together the public and private sectors in a spirit of collaboration and agreement and provide the leadership necessary to frame public policy on the future of the Nation's Marine Transportation System.

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