

MARITIME ADMINISTRATION

Maritime Administration Strategic Plan

Navigating the Future

2017-2021

Table of Contents

MESSAGE FROM THE EXECUTIVE DIRECTOR, IN LIEU OF THE MARITIME ADMINISTRATOR.....	5
THE MARITIME ADMINISTRATION MISSION AND VISION	7
ABOUT THE MARITIME ADMINISTRATION.....	8
THE STRATEGIC PLAN.....	11
DOT STRATEGIC PLAN (2014-2018).....	11
MARAD STRATEGIC GOALS.....	11
RELATIONSHIP BETWEEN DOT AND MARAD GOALS.....	12
MEETING THE GOALS.....	14
STRATEGIC GOAL 1: SUPPORT U.S. MARITIME CAPABILITIES.....	14
Objective 1.1 Secure maximum preference cargo for U.S.-flag vessels.....	16
Objective 1.2 Seek to reduce U.S.-Flag operating costs.....	16
Objective 1.3 Improve support programs for domestic shipbuilding/repair capability.....	16
Objective 1.4 Continue to ensure ready availability of ships, training billets, crews, and strategic ports.....	16
STRATEGIC GOAL 2: MAINTAIN AND MODERNIZE THE MARITIME WORKFORCE ...	17
Objective 2.1 Ensure that U.S. mariner requirements for economic and national security are identified and met.....	18
Objective 2.2 Modernize the USMMA and SMA school ships, training and education facilities or facilitate other suitable alternative training opportunities that meet international requirements.....	18
Objective 2.3 Standardize certification of shipyard job types to promote labor mobility among shipyards.....	18
Objective 2.4 Facilitate an educational and workplace environment that is unbiased and safe from sexual harassment and sexual assault, as well as any other discriminatory practices or behavior.....	18
Objective 2.5 Engage the K-12 and post-secondary (non-maritime academy) institutions to promote Science, Technology, Engineering and Math (STEM) education and maritime career opportunities.....	18

STRATEGIC GOAL 3: IMPROVE, EXPAND AND PROTECT WATERBORNE TRANSPORTATION.....	19
Objective 3.1 Leverage DOT funding and financial resources to assist in reducing national landside port congestion.....	20
Objective 3.2 Establish marine highway services to certain congested large urban port areas and along major freight corridors.....	20
Objective 3.3 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate fully-loaded containerships of up to 24,000 TEU capacity.	21
Objective 3.4 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate fully-loaded containerships of up to 16,000 TEU capacity.	21
Objective 3.5 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate dry bulk and tanker vessels of 50 feet in draft.....	21
 STRATEGIC GOAL 4: MINIMIZE ENVIRONMENTAL IMPACTS.....	 22
Objective 4.1 Collaborate with public and private entities to expand carriage of cargo by water, to reduce pollution and congestion in other transportation modes.....	23
Objective 4.2 Support research, testing and innovation to enable ports to minimize their environmental footprint through improved technology and practices.....	23
Objective 4.3 Support research, development and demonstration of alternative non-carbon energy sources and cleaner burning carbon based fuels and technology that will enhance vessel energy efficiency, reduce pollution and lower costs.....	23
Objective 4.4 Dispose of government-owned merchant-type ships in an efficient and environmentally responsible manner in domestic shipyards.....	23
 STRATEGIC GOAL 5: MARITIME INNOVATION.....	 24
Objective 5.1 Leverage existing ITS technologies and innovations and applications to benefit maritime/intermodal transportation.....	24
Objective 5.2 Leverage technologies to improve information flow for secure door-to-door tracking of cargoes including movements of cargoes on vessels, through ports, and on connecting surface transportations systems.....	24
Objective 5.3 Leverage the development of innovative ship designs and business processes suitable for U.S. domestic carriers and shipyards.....	24
Objective 5.4: Sustain progress in research, innovation, and deployment, including advanced technology for automation, ship design, shipyards, ports, and carriers.....	24
Objective 5.5: Position the USMMA as a leader and partner in maritime research and innovation.....	25

STRATEGIC GOAL 6: ORGANIZATIONAL EXCELLENCE 26

Objective 6.1 Maintain and improve a talented, dedicated, and diverse workforce that ensures that MARAD personnel remain well-trained, engaged and committed to achievement of the agency’s annual and long term performance targets..... 26

Objective 6.2 Maintain effective and efficient administrative support to meet DOT and MARAD strategic priorities and leadership imperatives. 26

Objective 6.3 Ensure execution of MARAD’s and the USMMA’s IT Strategic Plans and Enterprise Architecture Transition Strategy and meet Federal Enterprise Architecture and other Federal mandates. 27

ACRONYMS USED IN THIS DOCUMENT

CRF	Capital Construction Fund
CCF	Construction Reserve Fund
CMTS	Committee on the Marine Transportation System
DOD	Department of Defense
DOT	Department of Transportation
ESA	Endangered Species Act
FAST Act	Fixing America's Surface Transportation Act of 2015
FASTLANE	Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies
IMO	International Maritime Organization
ISO	International Organization for Standardization
ITS-JPO	Intelligent Transportation System Joint Program Office
MARAD	Maritime Administration
META	Maritime Environmental and Technical Assistance
MSP	Maritime Security Program
MTS	Marine Transportation System
MTSNAC	Marine Transportation System National Advisory Council
NDRF	National Defense Reserve Fleet
PEAR	Position Enrichment and Realignment
R&D	Research and Development
RRF	Ready Reserve Force
SMA _s	State Maritime Academies
TEU	Twenty-foot equivalent unit
TIGER	Transportation Investment Generating Economic Recovery
Title XI	Maritime Guaranteed Loan Program
TRB	Transportation Research Board
USMMA	United States Merchant Marine Academy
USCG	United States Coast Guard
VISA	Voluntary Intermodal Sealift Agreement

MESSAGE FROM THE MARITIME ADMINISTRATOR

I am pleased to present the Maritime Administration Strategic Plan for fiscal years 2017-2021. This Plan identifies the priorities and expected accomplishments of the Maritime Administration (MARAD) during a time of significant challenges and opportunities for the Agency, the maritime industry and the United States maritime transportation system.

MARAD is the only agency in the Department of Transportation that was created specifically to perform a national security mission. By law, and by Presidential directive, the U.S. military must rely on American mariners and the American commercial fleet, to meet our national defense needs. MARAD is charged with ensuring that the U.S. merchant marine – vessels and mariners – is large enough to meet the military’s requirements.

Our mission is to improve, strengthen and promote the U.S. maritime transportation system to meet the economic, environmental and security needs of the Nation. In our work across the Government and the U.S. maritime industry, we support and advocate advancements in the business of shipping and maritime transportation, both domestically and internationally.

MARAD is responsible for ensuring that the U.S. maritime transportation system is up to the task of meeting these needs, now and in the future. The U.S. maritime transportation system continues to face significant challenges due to aging ships and infrastructure, and foreign competition making it difficult to retain the resources that meet the needs of our country.

The maritime transportation system of the United States—including waterborne transportation, landside infrastructure, the shipbuilding and repair industry, and labor—integrates our economy with a vast global network of systems that moves more than 90 percent of world trade tonnage, including consumer goods, agricultural products, energy and raw materials.¹ Of the goods that the U.S. imports and exports, approximately 72 percent by weight and 44 percent by value move by water transportation and through our national port system.²

To meet the National policy mandate, our programs and advocacy of the U.S. maritime industry are founded on the broad objectives of education, jobs, economic competitiveness, safety, and environmental sustainability. MARAD programs encompass cargo development, international and domestic trading vessels, sealift and national security, the maritime workforce, ports and intermodal infrastructure, shipbuilding and ship repair, and maritime operational solutions. These programs are linked to help assure the National policy goal of a healthy U.S. maritime transportation system to support the Nation’s economic and national security.

From around the country at our Gateway Offices, the U.S. Merchant Marine Academy, the Ready Reserve Force sites, and at our Headquarters, our workforce fully embraces its

¹ Source: United Nations, International Maritime Organization. <https://business.un.org/en/entities/13>

² DOT/Bureau of Transportation Statistics, Freight Facts and Figures 2015, Figure 2-9 U.S. International Merchandise Trade Value and Weight by Transportation Mode: 2014. http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/data_and_statistics/by_subject/freight/freight_facts_2015/chapter2/fig2_9

commitment to our mission and to our Strategic Plan goals. It is through our workforce's dedicated and determined commitment to organizational excellence that we will accomplish these vitally important goals. By doing so, we will help to ensure the strength of the U.S. economy, ensure our national security and readiness, achieve environmental sustainability, create new jobs, and inspire and educate the next generation of mariners.

A handwritten signature in black ink, appearing to read 'Joel Szabat', with a stylized, cursive script.

JOEL SZABAT
Executive Director
in lieu of the Administrator

THE MARITIME ADMINISTRATION MISSION AND VISION

MISSION

To foster and promote the U.S. Merchant Marine and the American maritime industry to strengthen the maritime transportation system – including landside infrastructure, the shipbuilding and repair industry, and labor – to meet the economic and national security needs of our nation.

The Maritime Administration (MARAD) is charged with carrying out the National policies established by the Merchant Marine Act of 1936 (1936 Act), as amended, which provide for the U.S. government's support of the merchant marine.³ This statute declares it necessary for the national defense and the development of the domestic and foreign commerce of the United States to have a merchant marine:

- (1) sufficient to carry the waterborne domestic commerce and a substantial part of the waterborne export and import foreign commerce of the United States and to provide shipping service essential for maintaining the flow of the waterborne domestic and foreign commerce at all times;
- (2) capable of serving as a naval and military auxiliary in time of war or national emergency;
- (3) owned and operated as vessels of the United States by citizens of the United States;
- (4) composed of the best-equipped, safest, and most suitable types of vessels constructed in the United States and manned with a trained and efficient citizen personnel; and
- (5) supplemented by efficient facilities for building and repairing vessels.

For this reason, Congress declares in the statute that *“It is the policy of the United States to encourage and aid the development and maintenance of a merchant marine satisfying the objectives described.”*

Since 1775, the marine transportation industry has met the needs of our Nation during times of peace and war. The U.S.-flag fleet, the maritime workforce, seaports and the nation's shipbuilding and repair capability continue to be critical components of the transportation infrastructure and military readiness.

VISION

An innovative, competitive U.S. maritime system that enhances our Nation's multimodal mobility and ensures our national and economic security in an increasingly globalized world.

³ 46 U.S. Code § 50101

ABOUT THE MARITIME ADMINISTRATION

MARAD is the agency within the U.S. Department of Transportation (DOT) that supports the United States maritime industry. Its programs promote the use of waterborne transportation, and its seamless integration with other modal components of the transportation system, and the viability of the U.S. Merchant Marine.

Commercial mariners, vessels, and intermodal facilities are vital for supporting national and economic security. MARAD is charged with maintaining the health of all U.S. maritime industry components, including ships and shipping, the U.S. Merchant Marine, shipbuilding and repair, education and workforce development, landside port infrastructure, waterways and intermodal connectors, maritime safety and security, environmental protection, port operations, vessel operations and national security.

MARAD also advocates for the maritime industry; manages assets in support of the Department of Defense (DOD), including maintaining a fleet of government-owned cargo vessels; administers and funds the Maritime Security Program (MSP); operates the U.S. Merchant Marine Academy (USMMA) at Kings Point, NY; provides training ships, funding and other support for the six State Maritime Academies (SMA) (Maine, Massachusetts, New York, Texas, California and Michigan); and administers the Federal Ship Financing Program (Title XI).⁴

To encourage a strong U.S. Merchant Marine for both national defense and economic security, the Jones Act (46 U.S.C. § 55101) requires that cargo being transported by water between U.S. points must travel in U.S.-built and U.S.-citizen owned and crewed vessels that are registered in the United States. MARAD strongly supports the Jones Act, the U.S. commercial fleet, and the highly trained mariners who crew those vessels.

As an advocacy organization, MARAD works with many valued partners including other Federal government agencies, port authorities, state, local and regional transportation planning organizations, schools and maritime academies, and others that own and operate key transportation infrastructure or provide transportation services. Other agencies of the Federal government have diverse responsibilities for maintaining infrastructure- such as navigation channels, shipping lanes, locks, and inland and other waterways. Our strategy seeks to strengthen coordination among government agencies and between the U.S. maritime industry and international organizations. Many of these organizations provide a service, capability, or requirement relevant to MARAD's mission, which necessitates strong partnerships as a vital factor to our success.

⁴ The Federal Ship Financing Program (commonly referred to as Title XI) was established by the Merchant Marine Act of 1936 (46 U.S.C. Chapter 537) and provides for a full faith and credit guarantee by the U.S. Government to promote the growth and modernization of the U.S. Merchant Marine and U.S. shipyards.

CHALLENGES FACING THE U.S. MARITIME INDUSTRY

The U.S. maritime industry, including operating companies, ports and waterways, shipbuilding, and maritime jobs has not kept pace in recent years with advances in global trade and technology. Even though the United States is the world's largest trading nation, growth in global trade has outpaced the ability of the U.S. maritime industry to efficiently meet increasing demand.

To meet the current and future needs of the Nation, the U.S. maritime industry and MARAD must address a host of challenges. These include:

- Maintaining U.S.-flag ships in international trade,
- Ensuring that ports and related infrastructure can accommodate the largest vessels operating in global trade,
- Maintaining a supply of qualified merchant marines to crew reserve ships for defense and emergency sealift,
- Maintaining capacity to build and repair large ships,
- Mitigating maritime transportation impact on the environment and communities,
- Supporting innovative and clean technology for ports and vessels, and
- Ensuring that MARAD can effectively carry on its mission into the future.
- Advocate for adequate landside and waterway infrastructure to support our nation's future maritime transportation needs.

To carry out its mission and statutory responsibilities, MARAD provides expert technical and professional skills for a variety of programs, including national security planning and operations, cargo movement, environmental compliance, safety, maritime security, vessel design and construction, infrastructure development, international and domestic vessel operations, and maritime finance. These programs are intended to foster a strong merchant marine, American jobs, and investment in the maritime transportation infrastructure. To meet these needs, MARAD has prepared this Strategic Plan with broad strategic goals, and strategic objectives to attain these goals.

In coordination with other DOT modes, MARAD addresses the most pressing issues facing the maritime transportation system, including the need for expanding the capacity of our Nation's seaports, landside infrastructure, and intermodal connections to accommodate larger ships and increased cargo volume. DOT/MARAD also mediates competing interests for transportation investments, forges working partnerships with both industry and other government agencies (at the Federal, State and local level), and administers Federal maritime related grants supporting Transportation Investment Generating Economic Recovery (TIGER), Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE), and America's Marine Highway projects.

The availability of a sufficient number of qualified U.S. mariners is a growing concern. In times of national emergency, mariners are needed on short notice to crew U.S. government-owned ships, while also maintaining domestic and international maritime commerce that is the lifeblood

of the U.S. economy. With the declining number of oceangoing ships in the U.S.-flag fleet, the supply of readily available qualified mariners is correspondingly in decline. This critically important issue is addressed in the Maritime Workforce Strategic Goal.

Stipends paid under the MSP and U.S.-flag carrier access to government-impelled preference cargoes serve to help compensate carriers for the operating cost differential between U.S.-flag and foreign-flag vessels. Most of the U.S.-flag ships operating in international trades receive a stipend under the MSP or rely on preference cargoes to remain profitable. Although the MSP stipend has been increased to cover inflation in recent years, reductions in Department of Defense (DOD) and other preference cargoes since 2012, and increasing operating costs, have caused many non-MSP ships to leave the U.S.-flag fleet.

The shipbuilding and repair industry is a vital part of this country's transportation system and is part of the strong industrial base that assists in meeting the DOD and Department of Homeland Security (U.S. Coast Guard (USCG)) shipbuilding and repair requirements. A recent MARAD economic study shows that shipbuilding activity extends to all 50 states, from vendor and supplier contributions to actual shipbuilding and repair operations.⁵ Although no new large oceangoing vessels for the international trades have been built in U.S. shipyards for more than two decades, U.S. shipyards are constructing limited numbers of state-of-the-art commercial vessels for domestic use. U.S. shipyards currently produce fewer than 5 large self-propelled commercial vessels per year, relative to world production of 1,440 such ships per year. The U.S. production rate is expected to continue this decline as demand for tanker construction is likely to fall off over the next decade.

The ability to sustain commercial shipbuilding is critical to the Nation's ability to expand production during national emergencies. In addition to adequate shipbuilding infrastructure, it is imperative to maintain a skilled shipyard labor force, which has regrettably declined in recent years due to U.S. shipyard closures, a decline in the U.S. vendor base, and low-cost international competition.

⁵ Maritime Administration, *The Economic Importance of the U.S. Shipbuilding and Repairing Industry*, November 2015.

THE STRATEGIC PLAN

As an operating administration within DOT, MARAD's strategic goals are aligned with the Department's strategic goals. A primary MARAD responsibility within DOT is to support and develop the Nation's maritime transportation system so that it can move sufficient foreign and domestic commerce to accommodate economic growth, and provide military sealift and humanitarian aid response during national emergencies. MARAD also connects with maritime industry stakeholders and partners to help support, advocate for, and focus public/private infrastructure investments on the national freight network and on multi-modal freight corridors.

DOT STRATEGIC PLAN (2014-2018)

The Department of Transportation Strategic Plan sets the direction for DOT to provide safe, efficient, convenient and sustainable transportation choices through five Strategic Goals;

- **Safety** – Improve public health and safety by reducing transportation-related fatalities and injuries for all users working toward no fatalities across all modes of travel;
- **State of Good Repair** – Ensure the U.S. proactively maintains critical transportation infrastructure in a state of good repair;
- **Economic Competitiveness** – Promote transportation policies and investments that create ladders of opportunity, support strong communities, and bring lasting and equitable economic benefits to the Nation and its citizens;
- **Quality of Life in Communities** – Foster quality of life in communities by integrating transportation policies, plans, and investments with coordinated housing and economic development policies to increase transportation choices and access to transportation service for all; and
- **Environmental Sustainability** – Advance environmentally sustainable policies and investments that reduce carbon and other harmful emissions from transportation sources, reduce our nation's dependence on foreign oil, improve air quality, and promote public health.

In addition to the five mission-aligned strategic goals listed above, DOT also includes other goals for **Organizational Excellence, Security, Preparedness, and Other Supporting Objectives**.

MARAD STRATEGIC GOALS

To support accomplishment of the DOT Strategic Goals and to achieve the MARAD mission in support of the U.S. maritime transportation system, the following MARAD Strategic Goals are established:

- I. **Support U.S. Maritime Capabilities** - strengthen and ensure the safety, security, and efficiency of maritime capabilities that are essential to U.S. economic and national security.

2. **Maintain and Modernize the Maritime workforce** – inspire, educate, and expand opportunities for the next generation of mariners, including maximizing the potential of the USMMA.
3. **Improve, Expand, and Protect Waterborne transportation** – improve and expand waterborne transportation to reduce landside congestion and increase mobility throughout the domestic transportation system and expand capacity of U.S. international gateway ports. Protect maritime and other transportation infrastructure from the growing adverse impacts of a changing climate.
4. **Environmental Impacts** – minimize adverse environmental impacts and maximize the public benefits of water transportation on communities.
5. **Maritime innovation** – drive innovation in the U.S. maritime industry.
6. **Organizational Excellence** – in parallel with the Department’s goals, MARAD embraces Organizational Excellence through strong leadership and workforce development within available resources.

The following table shows the relationship between the Maritime Administration’s and Department of Transportation’s goals.

RELATIONSHIP BETWEEN DOT AND MARAD GOALS

STRATEGIC RELATIONSHIP BETWEEN THE DEPARTMENT OF TRANSPORTATION AND MARITIME ADMINISTRATION GOALS	
MARAD	DOT
<p>Support U.S. Maritime Capabilities - strengthen safe, secure, and efficient maritime capabilities that are essential to economic and national security.</p> <p>Maritime workforce – inspire, educate, and expand opportunities for the next generation of mariners, including maximizing the potential of the USMMA.</p>	<p>Safety –Improve public health and safety by reducing transportation-related fatalities and injuries for all users working toward no fatalities across all modes of travel.</p> <p>Note: DOT does not have a specific strategic goal for security, but includes it as a supporting goal.</p>
<p>Improve, Expand and Protect Waterborne transportation – improve and expand waterborne transportation to reduce congestion and increase mobility throughout the domestic transportation system and expand capacity of U.S. international gateway ports. Protect maritime and other transportation infrastructure from the growing adverse impacts of a changing climate.</p>	<p>State of Good Repair – Ensure the U.S. proactively maintains critical transportation infrastructure in a state of good repair.</p>

<p>Support U.S. Maritime Capabilities - strengthen safe and efficient maritime capabilities that are essential to economic and national security.</p> <p>Maritime Workforce – inspire, educate, and expand opportunities for the next generation of mariners, including maximizing the potential of the USMMA .</p> <p>Improve and Expand Waterborne Transportation – improve and expand waterborne transportation to reduce congestion and increase mobility throughout the domestic transportation system and expand capacity of U.S. international gateway ports. Protect maritime and other transportation infrastructure from the growing adverse impacts of a changing climate.</p> <p>Maritime Innovation – drive innovation in the U.S. maritime industry.</p>	<p>Economic Competitiveness – Promote transportation policies and investments that create ladders of opportunity, support strong communities, and bring lasting and equitable economic benefits to the Nation and its citizens.</p> <p>Note: DOT does not have a specific strategic goal for security, but includes it as a supporting goal.</p>
<p>Support U.S. Maritime Capabilities - strengthen maritime capabilities that are essential to economic and national security, including maritime education.</p> <p>Environmental Impacts – minimize the adverse environmental impacts and maximize the public benefits of water transportation on communities.</p>	<p>Quality of Life in Communities – Foster quality of life in communities by integrating transportation policies, plans, and investments with coordinated housing and economic development policies to increase transportation choices and access to transportation service for all.</p> <p>Note: DOT does not have a specific strategic goal for security, but includes it as a supporting goal.</p>
<p>Environmental Impacts – minimize the adverse environmental impacts and maximize the public benefits of water transportation on communities.</p>	<p>Environmental Sustainability – Advance environmentally sustainable policies and investments that reduce carbon and other harmful emissions from transportation sources, reduce our nation's dependence on foreign oil, improve air quality, and promote public health.</p>
<p>Organizational Excellence - Ensure that MARAD and the USMMA is best achieving the goals of the Department within available resources.</p>	<p>Organizational Excellence - develop an innovative, world-class organization to advance the U.S. Transportation system and serve the nation's long-term safety, social, Economic, security, and environmental needs.</p>

MEETING THE GOALS

MARAD's strategic goals and associated long-term objectives.

STRATEGIC GOAL I: SUPPORT U.S. MARITIME CAPABILITIES

Strengthen and ensure the safety, security, and efficiency of maritime capabilities that are essential to U.S. economic and national security.

The strategic goal of Supporting U.S. Maritime Capabilities is intended to ensure that essential U.S. maritime transportation resources, including waterborne transportation, the shipbuilding and repair industry, and associated workers, are ready and available to meet the economic and security needs of the Nation.

U.S.-flag ocean-going ships in international trade and the U.S. citizen mariners they employ have long been relied on to serve as a naval and military auxiliary in times of war or national emergency and are still integral to the defense of our Nation. To meet these needs, the U.S. relies on its privately-owned commercial oceangoing fleet and a fleet of government-owned cargo ships. Most government-owned ships are kept in reduced operating status with partial crews. The same pool of qualified mariners that crew U.S.-flag ocean-going ships are called upon to meet emergency requirements on both commercial and government-owned ships. This arrangement has worked well for decades but now faces challenges of aging government-owned ships, declining numbers of privately-owned U.S.-flag ships in international trade, and the availability of sufficient qualified crews needed to fully activate reserve ships.

The number of vessels in the U.S.-flag international fleet, crewed by U.S. Merchant Mariners, has dropped from 249 as of three decades ago to just 78 (as of October 1, 2016). Declining volumes of government-impelled cargoes, significantly higher U.S. vessel operating costs, and low international freight rates make it difficult for commercial U.S.-flag ships to remain economically competitive with lower-cost foreign flag carriers unless assisted by U.S. government incentives.

The U.S.-flag commercial fleet must be maintained to provide assured access to emergency sealift, training platforms and billets, and crews. Ocean-going ships are maintained under the U.S.-flag for defense and national emergencies through the MSP and the Voluntary Intermodal Sealift Agreement (VISA) program, cargo preference for U.S.-government sponsored cargoes, and Coastwise trade laws.⁶ Government-owned ships in the National Defense Reserve Fleet and Ready Reserve Force (RRF) are also maintained for immediate emergency response. Ships from these sources ensure that requirements are met for sealift, shipboard labor, and landside infrastructure resources for the Nation during peace and war.

⁶ The MSP and VISA programs serve in both peacetime and during emergencies to provide assured access to U.S.-flag commercial vessels, U.S. citizen crews and worldwide intermodal facilities for the DOD. The VISA program is a partnership between the U.S. Government and the maritime industry to provide the DOD with “assured access” to commercial sealift and intermodal capacity to support the emergency deployment and sustainment of U.S. military forces. The VISA program is authorized under MARAD’s authorities under the Defense Production Act of 1950, and the Maritime Security Act of 2003, and was approved as a DOD commercial sealift readiness program on January 30, 1997. MSP ships are required to enroll in VISA, for others the program is completely voluntary.

There are numerous challenges to meeting this goal. These include the availability of cargo for U.S.-flag ships, competition from lower-cost foreign vessel operators, competition from lower-cost foreign shipbuilding and repair, and meeting emergency readiness needs for ships and intermodal networks with a declining number of large ocean-going ships in the U.S.-flag fleet.

The U.S.-flag fleet relies on commercial and government cargoes as well as U.S. cabotage laws that reserve domestic waterborne commerce for U.S.-flag vessels.⁷ The recent reduction in U.S. military presence overseas has affected the availability of preference cargoes for U.S.-flag carriers. Without sufficient cargo, it has been more difficult for U.S.-flag carriers to maintain a presence on international routes that are vital for sealift and for the U.S. economy. Enforcement of cargo preference laws is critical to maintaining ships in the U.S.-flag fleet. Also, collection of accurate and consistent data from government shippers is essential to monitoring compliance with these laws.

The great majority of the U.S. commercial fleet of just over 40,000 vessels (including barges) and most of the U.S. mariner workforce are sustained by cabotage law. U.S. cabotage law (i.e., the Jones Act) has proven to be crucial to sustaining this large fleet of domestic trading vessels of all sizes and capabilities. MARAD continues to strongly support the Jones Act, the U.S. commercial fleet, and the highly trained mariners who crew these vessels.

The major share of the cost differential is associated with crew costs. The most effective actions to close the differential must be directed at this category of costs, including mariner income tax relief and liability insurance reform. Modernization of the fleet to improve efficiency will help reduce operation costs and improve the ability of U.S.-flag carriers to compete more effectively for cargo in the global transportation marketplace.

MARAD also leads the National Port Readiness Network which ensures readiness of commercial ports to support force deployment during contingencies and other defense emergencies. Nine Federal agencies and organizations have responsibilities for support of the secure movement of military forces through U.S. ports; these include: MARAD, U.S. Army Corps of Engineers (USACE), Surface Deployment and Distribution Command (SDDC), U.S. Coast Guard (USCG), Military Sea-lift Command (MSC), U.S. Army Forces Command (USFORSCOM), Transportation Security Administration (TSA), U.S. Northern Command (USNORTHCOM) and U.S. Transportation Command (USTRANSCOM).

With better promotion and improved operation of support programs, MARAD can develop and implement a wider range of potential solutions to meet the U.S. shipbuilding and ship repair industry's needs and concerns. Protection of cabotage, use of Title XI loan guarantees, Capital Construction Fund (CCF)⁸ and Construction Reserve Fund (CRF)⁹, and the Small Shipyard

⁷ Cabotage is trade or transport in coastal waters or airspace or between two points within a country.

⁸ The CCF program was created to assist owners and operators of United States-flag vessels in accumulating the large amounts of capital necessary for the modernization and expansion of the U.S. Merchant Marine. The program encourages construction, reconstruction, or acquisition of vessels through the deferment of Federal income taxes on certain deposits of money or other property placed into a CCF. CCF vessels must be built in the

Grant Program can help strengthen U.S. shipbuilding and ship repair and ensure that shipyard and maritime industrial capacity is maintained.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective I.1 Secure maximum preference cargo for U.S.-flag vessels.

Objective I.2 Seek to reduce U.S.-Flag operating costs.

Objective I.3 Improve support programs for domestic shipbuilding/repair capability.

Objective I.4 Continue to ensure ready availability of ships, training billets, crews, and strategic ports.

United States and documented under the laws of the United States for operation in the Nation's foreign, Great Lakes, Short-Sea Shipping or noncontiguous domestic trade or its fisheries. Participants must meet U.S. citizenship requirements.

⁹ The CRF, authorized by 46 U.S.C. Chapter 533 (the Act), is a financial assistance program which provides tax deferral benefits to U.S.-flag operators. Eligible parties can defer the gain attributable to the sale or loss of a vessel, provided the proceeds are used to expand or modernize the U.S. merchant fleet. The primary purpose of the CRF is to promote the construction, reconstruction, reconditioning, or acquisition of merchant vessels which are necessary for national defense and to the development of U.S. commerce.

STRATEGIC GOAL 2: MAINTAIN AND MODERNIZE THE MARITIME WORKFORCE

Inspire, educate, and expand opportunities for the next generation of mariners, including maximizing the potential of the USMMA.

The United States maintains a workforce of highly qualified maritime professionals, reflecting a strong tradition of education and training. However, the maritime workforce qualified for blue ocean vessel operations has been declining in recent years to the point that it may be difficult in the future to activate and crew all government-owned sealift capacity during surge operations. An aging workforce, stricter credentialing and certification requirements, and importantly, the lack of mariner positions in the industry as U.S.-flag commercial vessels leave the fleet are the primary contributing factors to this pending shortage.

A critical component of the Nation's ability to respond to national emergencies and meet defense sealift requirements is the availability of a sufficient number of highly trained merchant marine officers to safely and efficiently operate our fleet. Although the number of ships and crew requirements have been in decline, as older mariners retire there remains consistent demand for U.S. citizen mariners who are skilled in the best practices and latest technologies used in marine transportation.

To respond to an emergency, a sufficient pool of mariners must be available for employment at any time. Because employment on reserve ships is completely voluntary, it is difficult to determine the number of qualified mariners that are actually available and willing to serve on short notice. A better method of identifying the supply of mariners who are qualified and available needs to be developed.

MARAD is a major contributor to the replenishment of the U.S. maritime workforce, ensuring that sufficient mariners are available for national security purposes through its support of the USMMA and the six SMAs (Maine, Massachusetts, New York, Texas, California and Michigan). Maritime Academy graduates who receive Federal assistance must satisfy an obligation to work in the maritime industry for a minimum number of years and also serve as naval reservists, or enter active military service.

Also critical to the Nation's ability to respond to global events and to participate in world trade is the ability to innovate and manage shipping services. The USMMA and the SMAs educate the next generation of shipping executives and leaders. Therefore, the USMMA and the SMAs must be capable of providing a first-rate education to our young people – an education that encourages innovation and is aligned with the global nature of international shipping.

The industry will also need to diversify if it is to attract the best talent. In order to diversify, the industry will need to increase diversity recruitment and update policies and introduce practices to make it a more welcoming environment for women and minorities. In a June, 2016 "Call to Action," ship owners and labor leaders committed to work with MARAD to address sexual assault and harassment issues in the maritime industry. MARAD will continue this work to ensure that the educational and workplace environment is safe from sexual harassment and

sexual assault and any other discriminatory practices as the workforce becomes more diverse.

Another challenge facing training of merchant mariners is the aging of government-owned reserve sealift and training ships. RRF vessels have an average age of 41 years, though many are now approaching 50 years old. Many of these vessels are outdated and inefficient to operate and require larger crews than modern ships. Similarly, the training ships supplied to the USMMA at Kings Point, NY and the six SMAs are also inadequate to train mariners to operate modern ocean-going vessels. For example, the New York Maritime Academy's training vessel EMPIRE STATE is now 54-years old (built 1962). In contrast, today's commercial vessels have a typical operational life of 20 to 25 years.

The marine transportation workforce includes those employed in the shipbuilding and repair industry. These highly skilled specialized workers are essential for operation of this industry. MARAD does not directly educate these workers but can act as a catalyst to train this workforce for shipyard jobs in construction and repair.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective 2.1 Ensure that U.S. mariner requirements for economic and national security are identified and met.

Objective 2.2 Modernize the USMMA and SMA school ships, training and education facilities or facilitate other suitable alternative training opportunities that meet international requirements.

Objective 2.3 Standardize certification of shipyard job types to promote labor mobility among shipyards.

Objective 2.4 Facilitate an educational and workplace environment that is unbiased and safe from sexual harassment and sexual assault, as well as any other discriminatory practices or behavior

Objective 2.5 Engage the K-12 and post-secondary (non-maritime academy) institutions to promote Science, Technology, Engineering and Math (STEM) education and maritime career opportunities

STRATEGIC GOAL 3: IMPROVE, EXPAND AND PROTECT WATERBORNE TRANSPORTATION

Improve and expand waterborne transportation to reduce landside congestion and increase mobility throughout the domestic transportation system and expand capacity of U.S. international gateway ports. Protect maritime and other transportation infrastructure from the growing adverse impacts of a changing climate.

To enhance the safety, efficiency, productivity and capacity of our Nation's intermodal transportation system, each component of the marine transportation system including the U.S.-flag fleet, the marine highways, ports and intermodal connectors, the shipbuilding and repair industry, a highly trained and educated workforce, and related services, must be fully integrated into the overall transportation system. Currently, domestic water transportation is underutilized and our ports serving international trade have limited ability to accommodate the newer generation of larger vessels.

MARAD will continue to employ a variety of means to assist port development activities including: technical assistance, transfer of surplus Federal properties, support for the America's Marine Highways program, and deep water port licensing. In the interest of improving port efficiency, we will conduct port and infrastructure development activities that focus on the development of port infrastructure in locations throughout the country. One major means of expanding this collaboration is through the U.S. Marine Transportation System National Advisory Council (MTSNAC).¹⁰

Through the Department, MARAD continues to further integrate water transportation in the domestic supply chain. The Fixing America's Surface Transportation Act of 2015 (FAST Act) created the National Surface Transportation and Innovative Finance Bureau (Bureau) to provide assistance and communicate best practices to project sponsors looking to take advantage of DOT credit programs. The FAST Act explicitly incorporates ports and waterways into the National Freight System. The Bureau will streamline the application process for DOT credit programs, promote innovative financing, and coordinate the progress of environmental review and permitting processes.

MARAD also manages port-related development projects funded through the DOT TIGER grant process and FASTLANE Grants. In several cases, MARAD's port modernization projects have had the added benefit of improving DOD mobilization and major defense re-positioning efforts that contribute to improved national defense.

MARAD champions preservation of cabotage protections for U.S.-flag domestic vessels with coastwise endorsements to enable the support of the domestic self-propelled vessel fleet. This includes establishing marine highway services in congested urban areas and along major freight

¹⁰ The MTSNAC is a chartered, non-federal body that advises the U.S. Secretary of Transportation through the Maritime Administrator, on matters relating to the U.S. maritime transportation and its seamless integration with other segments of the transportation system, including the viability of the U.S. Merchant Marine. The MTSNAC is comprised of over 40 leaders from commercial transportation firms, port and water stakeholders, labor, and Federal, state and local public entities.

corridors, potentially relieving some traffic and environmental impacts on overcrowded highways.

Looking to the future of global trade, our Nation must ensure that port and near-port infrastructure can accommodate growing cargo volumes by integrating ports into the Federal-aid planning process so as to increase water, road and rail connectivity at ports. Enhancements and modernization are needed to keep our ports competitive with other North American ports. At least some of our ports will need to accommodate fully-loaded ships with a capacity of up to 24,000 Twenty Foot Equivalent Units (TEU)¹¹ and dry bulk and tanker vessels of up to 50 feet in draft (the maximum depth permitted by the expanded Panama Canal locks). The landside infrastructure at these ports must also be able to more efficiently load and offload these ships and have intermodal connectors with the capacity to handle large volumes of cargo in a shorter period of time than can be currently achieved.

MARAD will continue to grow cargo opportunities for U.S.-flag vessels by preserving and advancing U.S. maritime policies and commercial interests in the global economy. By working closely with other Federal government agencies, including the United States Trade Representative (USTR), we can ensure that U.S. maritime interests are adequately represented in all U.S. trade talks and international venues that impact the U.S. maritime industry (e.g., IMO). Additionally, MARAD will continue to participate in maritime related bilateral and multilateral trade talks and work closely with the USTR on World Trade Organization issues to grow cargo opportunities for U.S. flag vessels. MARAD can also continue to identify and facilitate commercial opportunities in foreign countries for U.S. businesses engaged in maritime-related goods or services.

MARAD can help coordinate with stakeholders to leverage DOT funding and financial resources to utilize, develop, and modernize Public-Private Partnerships that support the development and modernization of our ports and port-related facilities to increase economic competitiveness, assure and improve port access for national security, and enable equipment upgrades for more sustainable ports. These enhancements will help to better integrate the U.S. waterborne domestic trade system with the other modal components of the freight system and meet future commercial and national defense requirements in a safe and environmentally sound manner.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective 3.1 Leverage DOT funding and financial resources to assist in reducing national landside port congestion.

Objective 3.2 Establish marine highway services to certain congested large urban port areas and along major freight corridors.

¹¹ A TEU is a standard of measurement equivalent to a single 20-foot long by 8-foot high and 8-foot long container used to describe the capacity of a shipping container. Container ship capacity refers to the number of TEUs that the ship can physically carry.

Objective 3.3 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate fully-loaded containerships of up to 24,000 TEU capacity.

Objective 3.4 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate fully-loaded containerships of up to 16,000 TEU capacity.

Objective 3.5 Leverage DOT resources to enable additional U.S. ports to have landside facilities that can accommodate dry bulk and tanker vessels of 50 feet in draft.

STRATEGIC GOAL 4: MINIMIZE ENVIRONMENTAL IMPACTS

Minimize adverse environmental impacts and maximize the public benefits of water transportation on communities.

Measured in terms of ton/miles of freight moved, maritime transportation is less polluting than rail, air or highway transportation. MARAD programs such as the America's Marine Highways capitalizes on this efficiency by encouraging greater use of maritime transportation of freight, thereby also relieving congestion on the roads. Though relatively low polluting overall, maritime transportation does create nodes of relatively higher pollution in some areas, such as in major intermodal ports where ships, cranes and other port equipment, harbor craft, railways and drayage trucks are concentrated. MARAD is actively working with other DOT modes, federal, state and local agencies, the maritime industry and academia to find solutions that reduce environmental impact of maritime transportation and support socio-economic mobility for communities in port areas and beyond.

MARAD regularly participates in the development of international treaties, conventions, U.S. statutes and regulations pertaining to maritime environmental protection and maritime transportation impacts on the environment. Representing the commercial maritime perspective, MARAD ensures the development of pragmatic requirements that are effective in protecting human health and the environment, but also feasible in the maritime context and affordable for the maritime industry.

MARAD strives to minimize the environmental impact of its own operations throughout the country by developing, implementing, and annually updating the integrated Strategic Sustainability Performance Plan. The Plan establishes and tracks progress toward achieving goals relating to carbon and other greenhouse gas emissions, energy conservation, water consumption, fuel consumption, high performance sustainable buildings, green procurement and electronic stewardship), reduced carbon emissions, and energy conservation. U.S. DOT and other agencies participate in the development of international environmental standards and regulations through the International Maritime Organization (IMO) and International Organization for Standardization (ISO) to balance the need for U.S. maritime expansion with the issues and effects that are, and will continue to result from that expansion, along with opportunities to partner to minimize and avoid those negative effects.

MARAD also administers the Maritime Environmental and Technical Assistance (META) Program to foster innovation and assist the maritime transportation industry in meeting current and future environmental challenges. MARAD has been instrumental in establishing three U.S. facilities capable of testing ballast water treatment systems, and the development of technology to combat invasive species spread through hull fouling. META studies have explored the expanded maritime use of alternative fuels such as biofuels and liquefied natural gas (LNG), and alternative energy technologies such as hydrogen fuel cells, high-capacity batteries for marine use, and hybrid power systems for port and vessel operations including shore power. Other areas of interest include hybrid technology for vessel propulsion, stack gas cleaning systems and analytical tools with which to better understand the impacts of maritime and other transportation systems on the environment.

When Federally-owned, merchant-type vessels are determined to be no longer useful for defense or humanitarian relief missions, MARAD arranges for their disposal. MARAD's Ship Disposal program contracts for domestic ship disposal, primarily through vessel dismantling/recycling in an environmentally responsible manner that further reduces the risk of environmental contamination while contributing to the domestic recycling industrial base.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective 4.1 Collaborate with public and private entities to expand carriage of cargo by water, to reduce pollution and congestion in other transportation modes.

Objective 4.2 Support research, testing and innovation to enable ports to minimize their environmental footprint through improved technology and practices.

Objective 4.3 Support research, development and demonstration of alternative non-carbon energy sources and cleaner burning carbon based fuels and technology that will enhance vessel energy efficiency, reduce pollution and lower costs.

Objective 4.4 Dispose of government-owned merchant-type ships in an efficient and environmentally responsible manner in domestic shipyards.

STRATEGIC GOAL 5: MARITIME INNOVATION

Drive innovation in the U.S. maritime industry

Research and innovation have the potential to revitalize the maritime industry by providing mobility solutions, improved processes and next-generation technologies, which can spur employment opportunities for the industry and generate new spin-off industries. Some of these include investment to support maritime research and development (R&D), innovation in shipbuilding and design, identifying and supporting research and development needs for improved dredging techniques and dredged material placement options, and identifying and supporting training, research, and development for more effective oil spill prevention planning, and response.

MARAD will work within the framework established by the National Academies of Science/Transportation Research Board (TRB) and the Committee on the Marine Transportation System (CMTS), to encourage research and programs to develop tools that identify maritime-related bottlenecks and make reliable predictions to assist in evaluating strategic choices, setting priorities and justifying investments.¹²

In addition to its ongoing work to minimize environmental and community impacts, MARAD will work to expand its involvement with DOT's Intelligent Transportation System Joint Program Office (ITS-JPO), to identify strategies, best practices, and new operational and analytical tools that can be applied to the maritime industry.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective 5.1 Leverage existing ITS technologies and innovations and applications to benefit maritime/intermodal transportation.

Objective 5.2 Leverage technologies to improve information flow for secure door-to-door tracking of cargoes including movements of cargoes on vessels, through ports, and on connecting surface transportations systems.

Objective 5.3 Leverage the development of innovative ship designs and business processes suitable for U.S. domestic carriers and shipyards.

Objective 5.4: Sustain progress in research, innovation, and deployment, including advanced technology for automation, ship design, shipyards, ports, and carriers.

¹² The CMTS is a Federal Cabinet-level, inter-departmental committee chaired by the Secretary of Transportation. The purpose of the CMTS is to create a partnership of all Federal departments and agencies with responsibility for the marine transportation system. The role of the CMTS is to ensure the development and implementation of national marine transportation system policies that are consistent with national needs and to report to the President its views and recommendations for improving the marine transportation system. Source: Committee on the Marine Transportation System website,

Objective 5.5: Position the USMMA as a leader and partner in maritime research and innovation.

STRATEGIC GOAL 6: ORGANIZATIONAL EXCELLENCE

Embrace Organizational Excellence through strong leadership and workforce development.

We must meet demands placed on MARAD to ensure the success of our mission through strong leadership, a well-trained and diverse workforce and achievement of our strategic goals. Working toward the goal of organizational excellence is a process of continuous improvement and adaptation to changing mission and organizational support needs of the Department.

To work towards this goal, MARAD optimizes and aligns personnel, financial and infrastructure resources to meet current and future strategic goals, as well as the priorities of both DOT and MARAD. Training and continuity of corporate knowledge to the future workforce is imperative.

MARAD has initiated a Knowledge Management Team to strengthen knowledge transfer among employees. MARAD has also established and is implementing a Position Enrichment and Realignment (PEAR) initiative to better position the organization for future mission requirements by building a highly effective pipeline for leadership positions. MARAD will continue to operate a robust training program, including internal and external training and tuition assistance, to further the skills of the workforce.

A modern, secure, and efficient information technology (IT) system is essential for the MARAD workforce to meet mission-essential program requirements and security priorities. Organizational excellence requires that MARAD meet Federal and Departmental guidance specific to digital services while increasing operational efficiency within available resources. To accomplish this, MARAD will continue to leverage new technologies and best practices to improve management and deliver timely, authoritative data for effective decision-making across all programs. Note: MARAD maintains a separate IT Strategic Plan with specific goals and objectives for its information technology infrastructure.

We must ensure that the USMMA meets and exceeds every requirement for maintaining its accreditation from the Middle States Commission on Higher Education. MARAD must ensure that the appropriate authorities for administration and governance are restored to the USMMA Superintendent. The problems of sexual assault and harassment must be addressed and overcome. The USMMA must be positioned to meet its mission in a manner fitting a unique National institution of higher education, maritime expertise, and military training.

To make progress toward this goal, MARAD will take action on the following objectives:

Objective 6.1 Maintain and improve a talented, dedicated, and diverse workforce that ensures that MARAD personnel remain well-trained, engaged and committed to achievement of the agency’s annual and long term performance targets.

Objective 6.2 Maintain effective and efficient administrative support to meet DOT and MARAD strategic priorities and leadership imperatives.

Objective 6.3 Ensure execution of MARAD's and the USMMA's IT Strategic Plans and Enterprise Architecture Transition Strategy and meet Federal Enterprise Architecture and other Federal mandates.

Objective 6.4: Support the USMMA Strategic Planning process to ensure that the USMMA aligns with DOT objectives and meet its unique mission.