Marine Transportation System Fact Sheet

Components and Functions

The U.S. Marine Transportation System (MTS), the waterborne element of the National Transportation System, is complex, decentralized, and made up of an array of interdependent components, including ports, passengers, terminals, vessels, channels and connectors. It is also a highly interdependent system of services, including thousands of aids to navigation, to support over 25,000 miles of navigable waterways, 239 locks at 193 locations, and 8,231 U.S. waterway facilities (Table 1).

The U.S. is blessed with an abundance of navigable rivers, lakes, seaways, and coasts—as a result, the MTS was critical to the start of our nation and today remains the backbone of the country's commerce, carrying 71.6 percent by weight and 44.2 percent by value of U.S. International merchandise in 2015.

Table 1. Key MTS Facts	
Miles of U.S. coastline	12,380[i]
Miles of commercially navigable channels (2012)	25,000[ii]
U.S. Waterway facilities (2014)	8,231[iii]
US Merchant Mariners , active (May 2015)	
Captains, mates, and pilots	33,110[iv]
Engineers	9,940[iv]
Lock chambers at 193 sites (2014)	239[iii]
Vessel calls at U.S. ports (2013)	74,188[v]
Total U.S. waterborne commerce, short tons(2013)	891.2 million[iii]
U.S. foreign waterborne commerce, short tons (2013)	1.4 billion[iii]
Passenger ferry passengers (2009)	103 million[vi]
Household participation in recreational boating (2012)	32.3 million[vii]
Fishing vessels (2008)	78,903[viii]
Jobs supported by recreational and commercial fishing (2012)	1.7 million[ix]
Cruise passengers (2011)	10.9 million[x]
Federal Aids to Navigation (2014)	48,60[xi]

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 used to heat and cool our homes. The MTS also supplies daily the food and materials that American citizens expect to find on the shelves of their supermarkets and shopping centers. The U.S. Census Bureau has predicted that the U.S. population will increase by 98.1 million people between 2014 and 2060[xii]—and the MTS will need to be able to accommodate a corresponding port calls to support our way of life.

The MTS annually serves 106 million ferry passengers, 32.2 million recreational boating households, and almost 11 million cruise ship passengers. Moreover, in 2015, deep sea, coastal, and Great Lakes water transportation generated over $4 billion in annual wages. Port -related activities generated 23.1 million jobs.

When compared with other transportation modes, marine transportation is a safe, competitive, efficient and environmentally sound means of moving people and cargo. For example, a typical top of 15 barges can take over 1,000 trucks off of the roads, and move a ton of freight almost 600 miles on a gallon of fuel[xiii]. Use of the MTS by ships also alleviates road maintenance, repair, and traffic congestion, all having environmental benefits.

The MTS is vital to national security and military mobility. The MTS enables most U.S. military power to move around the world by ship, providing logistical support for the rapid deployment of American forces and materials. The MTS is also vital to the re-opening of ports, channels, and supply chains following extreme weather events.

For more facts about the MTS, go to www.CMTS.gov

Challenges

The MTS is at a crossroad, with segments of the system showing signs of strain, as operational and maintenance challenges, and system chokepoints increase. At many points, the MTS physical infrastructure is fragile and at risk. The capacity of many ports face an uncertain future to be able to service and supply larger and larger ships, made possible in part by the expansion of the Panama Canal in 2016. Today's largest container vessels are more than 300% larger than 5,000 TEU PANAMAX vessels while the American Association of Port Authorities (AAPA) repots that even the nation's 59 busiest ports on an average have authorized channel dimension available just 35% of the time[xiv]. This situation negatively impacts navigational safety and efficiency, increasing costs to consumer and reducing competitiveness of U.S. exports.

An overburdened MTS increases the possibility of systemic supply-chain disruptions and delays, potentially resulting in enormous losses to the U.S. economy and increased costs to the consumer. For example, the Congressional Budget Office estimates that a one week shut down of the container ports of Los Angeles and Long Beach may result in losses of $65 million to $150 million per day[xv].

The expected increase of vessel traffic will place burdens on waterway management and port safety and security services, and raise the risk of accidents. In conjunction with international authority, state, local, industry, and other public partners, the Federal Government is responsible for ensuring the safety and security of the MTS. In 2012, the US Coast Guard conducted more than 10,000 Port State Control and Security examinations on foreign flagged vessels, completed over 25,575 container inspections, over 9,100 fishing vessel and 1,500 towing vessel examinations[xvi].

As waterborne trade increases, stresses to port proximate sensitive marine and freshwater environments will continue. There is a clear relationship between environmental protection and MTS efficiency, safety, and environmental protection. The more that is able to be done to make the MTS safer and more efficient, for example through the use of emerging navigational technologies, there will be a corresponding decrease in the risk to the environment.

Federal expenditures to maintain and improve MTS infrastructure is not keeping pace with its use and importance to the U.S. economy. Federal investments in MTS infrastructure have been relatively flat for years. Unless new and innovative financing is instituted, the U.S. will fall farther and farther behind other countries in the global competitive market place. Sharing and coordinating Federal agency infrastructure funding priorities has never been more important to ensure that the MTS is supported for future needs. Examining alternative financing and methods for increased system efficiencies will be critical.

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