

Maintaining a Vibrant U.S. Maritime Workforce

Challenges and proposed solutions.

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America's rich, often turbulent history and economic growth has always been indelibly interwoven with, and deeply dependent upon, the strength and influence of the U.S. merchant marine. Dating back to the late 1700s, when merchant mariners transported the goods that sustained the colonists as they forged a new nation, to the present-day benefits it affords our nation, the merchant marine has been a major force in making the United States a superpower.

A Proud History

The merchant marine's role in our nation's security and growth was recognized as early as 1775, when the first Congress granted a tax break to U.S. shipping importers and exporters, encouraging them to transport all of their cargo on U.S.-made vessels manned by American seafarers. Nearly 200 years later, having fueled the westward expansion and transformed our coasts and inland waterways into boundless commercial conduits—while also defending our nation in multiple wars—the merchant marine was granted direct federal support through the Merchant Marine Act of 1936. That legislation underscored the need to ensure a robust merchant marine and mandated that a substantial portion of foreign commerce should be carried on U.S.-flagged ships.

After merchant mariners served heroically in World War I, supporting our nation's economy and sustaining the war effort, World War II brought yet another opportunity for service, which was won largely on the backs of the U.S. merchant marine. However, by 1970, Congress enacted new legislation in response to a dramatic decline in the number of U.S.-flagged vessels following the end of WWII, approving massive shipbuilding subsidies. This allowed private maritime industry to grow and develop, pioneering massive container ships that now dominate the oceans and, more

recently, engineering new, clean, energy-efficient propulsion options like liquefied natural gas-fueled ocean-going ships.

National and international shipping helped grow America into a global economic force while supporting massive troop deployments in Korea, Vietnam, Iraq, and Afghanistan. The merchant marine also provided unprecedented essential humanitarian assistance in a series of disasters: September 11, 2001; a devastating earthquake in Haiti; massive hurricanes Rita and Katrina along the Gulf Coast; and Super Storm Sandy, which severely damaged New York and New Jersey.

Current Struggles

Today, the U.S. merchant marine continues to provide humanitarian support and food aid to war-torn nations and refugee outposts across the globe. Even so, the tides of maritime history continue to shift, and the industry today finds itself again at a critical crossroads, poised between a glorious past and an uncertain future.

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The U.S.-flagged fleet of globally trading ships has gone from 106 vessels in 2012 to just 79 today. That 27 percent decrease (representing a loss of more than 2,400 seafaring jobs) reflects an alarming trend for an industry penalized by high costs, plummeting prestige, public and congressional indifference, a struggling port and maritime infrastructure, and a fleet of training vessels well past their prime.

Perhaps the most telling factor is that today less than two percent of our international cargo is carried on U.S.-flagged ships. And even while we are blessed with the world's most enviable network of rivers, lakes, and waterborne transportation corridors, this nation moves only six percent of its domestic freight by water.

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These unpleasant trends coincide paradoxically with skyrocketing domestic and international freight volumes and intensifying global competition for available cargoes. They accompany highways choked with traffic and overloaded by a rapidly growing population. At a pivotal moment in its history, the nation has once again lost touch with its life-sustaining maritime roots, seemingly heedless of the maritime industry's enormous potential to relieve—if not resolve—many of these escalating pressure points.

Declining Sealift Capacity

In dealing with these many challenges, the Maritime Administration (MARAD) operates under one mandate: to guarantee America's ability to deploy military forces anywhere in the world on short notice and sustain them while they are in theater through logistical support.

Our forefathers certainly understood the importance of this. With the world's largest oceans at our three coasts and the planet's biggest freshwater lakes on our northern border, they foresaw that the U.S. needed to build and maintain a vibrant maritime industry. This is still true today, but rather than forging ahead with a fortitude and foresight borne of two centuries of proven success, our generation is instead witnessing a dramatic and potentially disastrous decline in the strength and vitality of the U.S. maritime sector.

The rapid decline in the U.S.-flagged fleet has also captured the attention of U.S. military leaders, some members of Congress, and federal transportation leaders. Of the world's 36,000 large deep-sea merchant ships of 1,000 gross tons or larger in international registries, only 79 today fly the U.S. flag. Another distressingly small fleet of 91 U.S.-flagged ships are registered for U.S. coast-wise trade. The fact that this has all happened in a stunningly short interval is particularly alarming. Since January 2010 alone, 58 large ocean-going ships (about 20 percent of the fleet) in international and domestic trades have departed the U.S. registry.

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What is the reason for this precipitous decline? The answers are complex, but, not surprisingly, are tied to simple economics. Suffice it to say that the owners of U.S.-flagged vessels find it challenging to make a profit—or at least keep losses to a minimum—flying the U.S. flag.

Compared with transporting cargo on ships operated by other nations, it simply costs more—often much more—to sail U.S.-flagged vessels manned and operated by American mariners. The U.S. maritime industry, for example, upholds health and safety standards that many other nations largely ignore, and which cost more to enforce. We also pay our seafarers more due to our nation's cost of living. Consequently, many ship owners choose to fly “flags of convenience” due to the lower operating costs and tax benefits enjoyed.

Declining Mariner Workforce

The declining U.S. sealift capacity has created a troubling domino effect, leading to a dramatic drop in the mariner workforce. This drop includes an already aging and shrinking pool of experienced mariners fully qualified to operate large seagoing vessels. Again, the causes are complex and to some degree interdependent, but in a very short amount of time, as noted earlier, the industry has lost more than 2,400 jobs—a stunning number with far-reaching implications, given the small size of our U.S.-flagged fleet.

It means, for one, that the nation barely has enough qualified mariners—about 11,280—to crew existing government-owned sealift vessels. These are the vessels that would lead an initial surge of equipment and supplies to deploy our

troops to defend our national interests, but anything beyond an initial surge would leave the fleet quickly undermanned and our troops potentially in jeopardy.

Moreover, given that it takes about 10 years for a new sea-

farer to gain the credentials and experience needed to become master of a ship or rise to chief engineer, one thing is certain: Tomorrow's mariners are simply not entering the workforce pipeline today at a rate sufficient to meet domestic needs—present or future. Add to this a growing trend of young mariners leaving the industry prematurely for other professions, and the challenges of recruiting, training, and retaining qualified seafarers become painfully clear.

These workforce challenges are compounded by the unique set of qualities required of successful merchant mariners. These highly skilled men and women are typically characterized by self-discipline of the highest order, a willingness to be separated from family for prolonged periods under

stressful circumstances, and simple common sense, often called a “seaman-like manner.”

In a high-tech world, moreover, modern merchant mariners must also be tech-savvy, multi-skilled, and ideally possess cross-cultural or even multilingual abilities. Whereas licensed officers once served on any commercial ship of a certain size, international regulations now mandate specific additional certifications for specialized ships like LNG carriers, oil tankers, and chemical carriers. This makes crewing ships a challenge and underscores the importance of both recruiting and educating the best and brightest young candidates.

Recruiting the Next Generation Mariner

Given the challenges of recruiting the younger generations to maritime professions, we must pay attention to education and recruitment in the public schools. The maritime community must redouble its efforts to spread the good news about the industry to upcoming generations so that they may fully appreciate the importance of a career in the U.S. merchant marine.

Further, we must not only recruit and train young mariners—we must prioritize and protect their future maritime employment. Mariners’ jobs take years to develop, and once they are lost, they won’t be coming back!

The National Security Multi-mission Vessel

Educating merchant mariners would be incomplete, of course, without extended time at sea aboard actual ships, which speaks directly to MARAD’s mission.

We must act immediately to provide uninterrupted availability of licensed merchant mariners to operate U.S.-flagged vessels in commercial and military operations, and to sustain shipbuilding and repair capability in support of U.S. economic and national security. These multiple challenges call for a multifaceted approach, which MARAD is addressing through a number of measures:

- enforcing U.S.-flagged cargo preference quotas;
- providing direct stipends to retain militarily useful vessels in the commercial fleet;
- collaborating with ports and state transportation agencies;

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Where are the Young Mariners?

Many young mariners leave the profession early, before they gain the experience needed to rise to the senior ranks, simply due to the lack of traditional appeal for a career at sea among the millennial generation. The exodus is tied to personal and quality of life reasons.

A ship is a unique environment. It is not only a workplace, but also a mariner’s dwelling for potentially months at a time. This self-contained environment can cause even small difficulties and discomforts to become magnified. Coupled with extended periods away from loved ones, the rigors of sea life discourage many from seriously considering a long-term maritime career.

Recruitment Challenges

The Maritime Administration has tracked this trend for some time and is deeply invested in recruiting bright young cadets to learn, serve, and grow into the experienced, fully credentialed mariners needed to fill a host of maritime positions already in critical demand.

It is not an easy task. The allure of adventure once tied to a seafarer’s life has all but disappeared.

A globalized economy and the relatively invisible role mariners play within it have altered the seafaring landscape. Shipping operations, while still vitally important and, in reality, irreplaceable in our domestic and global economy, today sail silently, facelessly, beyond the public eye, and, in their continual feeding of global supply chains, effectively off the grid.

The vanishing charms of the 21st century maritime industry, therefore, have triggered a worldwide shortage of merchant mariners, which is bad news for an interdependent global economy and even worse news for U.S. commerce and national security.

- providing millions of dollars in diverse funding streams, grants, and loans to help modernize maritime infrastructure and boost domestic commercial enterprise;
- directing enormous energy and resources to promote recruitment, training, and retention for young mariners.

Integral to this effort is recapitalizing or replacing the aging fleet of federal government training vessels that state maritime academies use. MARAD hopes to accomplish

this through its program to design, modernize, or build a national security multi-mission vessel (NSMV).

On average, training vessels at the six state maritime academies are 37 years old. The oldest, *Empire State VI*, at the State University of New York Maritime College, was built in 1962. That's like getting behind the wheel of your great-grandfather's Studebaker! The younger generation is accustomed to the very latest in modern technology, and the prospect of training on an aging (and in some cases, less-than-fully functioning) training vessel is quite unappealing.

The proposed NSMV is a high-tech, modern maritime platform designed as a special-purpose training ship, with further capability to support federal humanitarian response efforts and disaster relief missions. Most importantly, it would serve as a state-of-the-art maritime cadet education and training environment.

MARAD has worked with leadership at the U.S. Department of Transportation to include \$5 million in funding to design this NSMV—a top priority that cannot be overstated. Without the vessel, training protocols will become increasingly compromised, making it harder to recruit and train the next generation of mariners this nation desperately needs. These limitations, already felt, will continue to undercut recruiting and retaining a highly specialized, tech-savvy maritime workforce.

The National Maritime Transportation Strategy

The future holds great challenges as well as exciting opportunities for the U.S. merchant marine. To maximize its opportunities and fulfill its promise, however, our nation has no choice but to rediscover—and *revive*—its great maritime heritage. Today's increasingly overcrowded, congested U.S. landside transportation infrastructure necessitates a significant, ongoing transition to underutilized maritime assets.

Looking Ahead

Our nation's history has repeatedly demonstrated the value and utility of moving freight on the water; of assuring the sealift capacity to support the nation in times of need; and the commitment to train, employ, and retain a highly skilled merchant mariner workforce. As the past has proven, this nation's future rests on the strength and vitality of the U.S. merchant marine.

About the author:

Mr. Paul "Chip" Jaenichen served as MARAD's maritime administrator from July 2014 through January 2017. He was a career naval officer who retired after 30 years as a nuclear-trained submarine officer in the U.S. Navy. He has served as deputy chief of Legislative Affairs; commanding officer of the USS Albany; submarine squadron commander; director, submarine/nuclear officer distribution; and chief, European and North Atlantic Treaty Organization Policy Division. He holds a B.S. in ocean engineering from the U.S. Naval Academy and a master's in engineering management from Old Dominion University.

For more information:

History and statistics courtesy of the Maritime Administration. Visit the website at: <https://www.marad.dot.gov>.