

MARAD Announces Vessel Construction Manager for National Security Multi-Mission Vessel



An artist's rendering of the National Security Multi-Mission Vessel (NSMV). TOTE Services Inc. has been chosen as the vessel's construction manager. U.S. Maritime Administration
WASHINGTON – Maritime Administrator Rear Adm. Mark H. Buzby announced

May 21 that TOTE Services Inc. of Jacksonville, Florida, has been chosen as the vessel construction manager for the newest class of training ship, the National Security Multi-Mission Vessel (NSMV).

TOTE Services was selected by MARAD as the construction manager for selecting a shipyard and ensuring that commercial best practices are utilized to deliver the NSMV on time and on budget, MARAD said in a May 21 release.

"The U.S. shipbuilding industry is vital to America's economic strength and security," Buzby said. "The selection of TOTE Servicesto work with a U.S. shipyard to deliver this class of vessels is an investment in our nation's vital maritime infrastructure and underscores our mission to foster and promote the U.S. Merchant Marine."

The 2017 National Defense Authorization Act directed MARAD to "provide for an entity other than the Maritime Administration to contract

for the construction of the NSMV.” This procurement process has allowed MARAD to leverage existing marketplace expertise and target companies experienced in the production of innovative U.S.-built ships.

“The construction of this new NSMV will continue to showcase our nation’s shipbuilding standard of excellence,” Buzby said. “Ultimately, it will provide an excellent training platform for future generations of mariners.”

TOTE Services is a full-service company that will oversee and manage the detailed design, construction, testing and delivery of the final NSMV. The NSMV is a new class of purpose-built ships to provide for the replacement of the current training ships at the State Maritime Academies (SMA). SMA training ships are primarily used to meet regulatory requirements for training standards and to offer at-sea training experiences.

Upon award of the contract, TOTE Services will issue a request for proposal to shipyards. Pursuant to the contract, the company is expected to select a shipyard within six months of the VCM contract award and will begin the management oversight of the final vessel design and construction, with an expected delivery date of fall 2022.

The NSMV will feature numerous instructional spaces and a full training bridge and have space for up to 600 cadets to train in a maritime academic environment at sea.

In addition to serving as an educational platform, the NSMV will also be available to support federal government responses to national and international disasters such as hurricanes and earthquakes. In this role, the NSMV will be equipped to support major federal relief and response efforts, providing hospital facilities, a helicopter landing pad and berthing for up to 1,000 first responders and recovery workers. The vessel's roll-on/roll-off ramp and crane to facilitate container storage will enable it to provide critical supplies to damaged port facilities.

Robots are Real, but AI's Full Promise is Still on the Horizon



The "Human-Machine Teaming and AI" panel May 8 at Sea-Air-Space 2019. Chuck Fazio

NATIONAL HARBOR, Md. – Artificial intelligence in all its forms, from machine learning algorithms to unmanned systems, is a sure thing for the sea services and its partners, but there is still much to determine in terms of the technological and operational challenges it presents for warfighting.

In a panel discussion on May 8 at Sea-Air-Space, U.S. Coast Guard Rear Adm. David Dermanelian, assistant commandant for C4IT and commander

of Coast Guard Cyber Command, framed the conversation as a relevant, real-world issue for the sea services.

“This is not the art of the future. It’s happening today,” Dermanelian said.

U.S. Marine Corps Brig. Gen. Christian Wortman, vice chief of naval research, said the Corps has an expansive approach to AI and is seeking to embed it into everything the service does, including machine learning to make war more efficient and help make more informed decisions. But he stressed that users “can’t look at this in isolation,” and the Marines also need enhanced network capabilities and to use the cloud so algorithms can take advantage of the data that is harvested.



“AI” panelist Steven Escaravage, senior vice president for the Strategic Innovation Group at Booz Allen Hamilton. Chuck Fazio U.S. Navy Rear Adm. Casey Morton, who was on day three of his job as program executive officer of Unmanned and Small Combatants, said his service is “firmly” moving in the direction of adding more unmanned elements to its assets, from unmanned surface vehicles to unmanned underwater vehicles and beyond.

“They are going to be a part of our team,” Morton said. “It’s not a matter of if; it’s a matter of when and how fast and how can we get there.”

Right now, he believes the Navy is not yet at human-machine teaming but is working toward that future where Sailors and

machines work closely together. He cautioned that there are still a lot of unanswered questions about AI, like what infrastructure it will need, where it will be based in the fleet, how it will be supported, if it will be forward-deployed and other policy issues.

"We are at the early stages of this still," Morton said. "There are a lot of questions here that are still unanswered."

"This is not the art of the future. It's happening today."

U.S. Coast Guard Rear Adm. David Dermanelian

The U.S. Maritime Administration's Christopher Walher, who focuses on the education programs of MARAD's six state maritime academies, sees AI as a pedagogical challenge, since sometimes subject matter experts are too advanced to be excellent teachers, often skipping over critical points that, to them, appear obvious.

He prefers a "crawl, walk, run" approach to the training pipeline, where MARAD leverages a training process so AI can manage what it excels at and humans can focus on their strengths, much like the current relationship between smartphones and users.

Key for MARAD going forward will be working with other organizations, including a meeting the agency has next month with AI experts so they can share information, versus starting from ground zero on research and development.

“As we talk about crawl, walk, run in the Maritime Administration, we are the little ship that could,” he said. “We don’t have a lot of money for R&D.”

Steven Escaravage, senior vice president for the Strategic Innovation Group at Booz Allen Hamilton, briefly went over his company’s 60 current programs that involve machine learning and robotics, including areas like sensor data processing, electronic warfare, predictive maintenance and optimized planning.

Escaravage said the field of AI in the last six to 12 months has focused on taking what has been written about and researched in the lab and tried to operationalize those concepts so they can be used in real-world environments. He said while AI has suffered from being overhyped, there are some rich capabilities for it today.

“Although today’s capabilities are probably over-extended and somewhat brittle, what’s going to happen in a matter of months is going to be real capability that changes pretty much everything we do.”

Nation’s Sealift Struggling, but Gaining Attention



Panelists at the Strategic Sealift discussion on May 7 at Sea-

Air-Space 2019 talk about maintaining capability overseas.
Charles Fazio
NATIONAL HARBOR,
Md. – The nation's strategic sealift has languished for too many years, a panel of experts told an audience May 7 at Sea-Air-Space 2019. And the panel, representing the military and civilian sea services, told the morning program attendees that the time for revitalizing sealift is now.

Countering the somewhat bleak picture they drew, they all expressed optimism with the fact that the issue is finally garnering the attention it deserves.

"We are facing one of the greatest maritime challenges in U.S. history," said Kevin Toharsky, the associate administrator of the U.S. Maritime Administration, who moderated the panel. "The good news is the sea power we need ... is back on the radar screen."

Toharsky outlined the significant decline in the number of U.S.-flagged merchant ships, which meant the loss of jobs for mariners. The commercial fleet is essential to the nation's commerce and national security, he said. Commercial cargo of fuel and goods rely on it, as does the military. In contrast, potential adversaries like China are bolstering their maritime industries – and their world presence in the process, he said.

“I’m encouraged by the greater awareness ... and the conversation about the problem,” said Coast Guard Rear Adm. John Nadeau, who is assistant commandant for prevention policy.

Resolution, however, “won’t be easy,” Nadeau said. “The material condition [of the merchant fleet] didn’t happen overnight and won’t be corrected overnight.”

Ensuring that the parties involved – including military and commercial stakeholders – are striking the right partnerships, engaging in transparency and carrying out open and frank dialogues, will set the nation on the right track, Nadeau said.

“We need industry support,” said Erica Plath, the Navy’s director of strategic mobility, as she described the Navy’s plans to modernize its fleet of deep-sea transports through the acquisition of both new and refurbished older vessels.

Chris Thayer, director of ship management at Military Sealift Command, alluded to a downward trend in available sealift capacity during the past two years.

The command is implementing a “robust effort” to restore readiness that would require a holistic approach to address aging ships and construction and refurbishment efforts as well as crew-training requirements.

Capt. Christian Spain, vice president of government relations for the American Maritime Officers Union, said revitalization is essential if the nation intends to address the current shortage of 1,800 merchant seamen.

“It doesn’t affect sealift at the initial [point],” Spain said. “But at four to six months, it does.”

Similar to submarines, merchant ships require two crews that rotate sea tours, Spain said. The crew shortage figure has been steady since 2013, he said, but would increase to 2,000 within the next two to three years if not addressed.

“The time is now,” Spain said.

Indo-Pacific Policy More Complex Than Only China and Russia



Panelists discuss the complexities of a region dominated by two near-peer superpowers but also full of friendly nations.
Seapower / Victoria Bottlick

NATIONAL HARBOR, Md. – As the nation grapples with striking a balance between competing with great power challenges and preparing for the possibility of conflict, the Indo-Pacific region poses perhaps the most significant challenge, Dr. Mara Karlin believes.

Karlin, director of strategic studies at the Johns Hopkins School of

International Studies, made that observation as she introduced a panel of four military and civilian government experts, each of whom plays a key role in formulating related policies in the region.

It stands to reason that each panelist recognized the increasing threats posed by China and Russia. Still, they noted that the matrix is considerably more complicated. Eyes cannot be focused on the two large superpowers at the expense of other friendly nations in the region. Also, while China and Russia loom as potential adversaries, it is imperative that the U.S. and its partners work as closely together with them on areas of common interest.

Representing the Coast Guard and Marine Corps, Vice Adm. Linda Fagan and Gayle Von Eckartsburg discussed how each respective service shares a forward-deployed mission that makes their presence essential in the Pacific. Both Fagan and Von Eckartsburg emphasized that neither service is a "garrison force."

"The Coast Guard has never been more relevant," said Fagan, the service's Pacific Area commander. "The demand for the signal we bring into the region has never been higher."

Besides watching Chinese and Russian activities and fostering goodwill among

allies, Fagan placed equal importance in “modeling legitimate behavior,” so that “China can see what a responsible Coast Guard looks like.”

If the Chinese can learn from the U.S. Coast Guard how to conduct, for example, more effective search-and-rescue operations, so be it.

Von Eckartsburg, director of the Marine Corps Pacific Division office of Plans, Policy and Operations, described a “persistent forward force.” Of the roughly 40,000 Marines now deployed around the world, the vast majority is west of the International Dateline, she said.

“We’re in a constant state of motion, leveraging presence to maintain readiness at the same time,” Von Eckartsburg said.

Joel Szabat the Assistant Secretary of Transportation for Aviation and International Affairs, discussed the three most important “pillars” of stability in the region – economy, governance and security.

“We need to remember that this is not about containing or encircling any one country,” Szabat said. “We want to help people, regardless of who our competitors are.”

Security commitments with U.S. allies would assure the free flow of commerce, Szabat said. The

nation faces significant related challenges in this arena, he believes. U.S.

sealift is old and needs to be recapitalized, he said. The size of the U.S.

merchant fleet, which handles much of the military's sealift capability, is

good enough for small-to-medium operations.

"We don't have

enough mariners, or U.S.-flagged merchant marine," Szabat said.

Walter Douglas,

who heads the State Department Bureau of East Asian and Pacific Affairs, cited

an Asian Development Bank statistic that states the region needs an estimated

\$1.7 trillion in investment to sustain healthy economic growth.

"There's nowhere

near that amount of money available in one state," Szabat said.

The emphasis,

then, would be to have "money centers" and corporations step in with

"transparent" investments. The government and private sectors would ensure that

such funding would not be subject to the troubles endemic to secret

deals.

"That money gets

spent in the wrong places," Szabat said. "We can't have that.

We need open

governance. We have to see [to it] that investment laws are transparent."

Equally imperative, Douglas said, is working to ensure that investments are evenly distributed. While putting money into traditional stable partners like Japan, Australia and Singapore would remain important, more could be done to help open emerging economies. He said that Vietnam, for example, badly wants help developing its infrastructure – from anywhere but China.

Service Chiefs Tout Agility, but MARAD in Need of Funding to Flex Muscle



The sea services chiefs (from left) – U.S. Navy CNO Adm. John M. Richardson, Marine Corps Commandant Gen. Robert B. Neller, Coast Guard Commandant Adm. Karl Schultz and Rear Adm. Mark Buzby of the U.S. Maritime Administration – during their panel discussion May 6 at Sea-Air-Space 2019. Lisa Nipp

NATIONAL HARBOR, Md. – The sudden order to send the Abraham Lincoln carrier strike group to the U.S. Central Command theater in response to threats from Iran is a great example of the value of the Navy's dynamic deployment concept, Chief of Naval Operations Adm. John M. Richardson said at the Navy League's Sea-Air-Space 2019 exposition.

Although the Lincoln's deployment into the Mediterranean had been planned, "this is a great demonstration of what we've been working on, dynamic

deployment," Richardson said May 6. Naval maneuver forces are "dynamic by design," but Richardson said he found it encouraging that if the national command authority needed the Lincoln strike group to go to the Middle East it can do so immediately.

At the opening session of the Navy League's annual Sea-Air-Space exposition, Richardson responded to a question about National Security Advisor John Bolton's announcement that the administration had ordered the Lincoln and its escorts to cut short its planned Mediterranean exercise and sail to the Persian Gulf region after warnings that Iran may be planning attacks on U.S. forces. Bolton said an Air Force bomber unit also was being sent to the region.



The sea services chiefs at their panel discussion at SAS. Lisa Nipp Asked how the Navy would respond to President Donald Trump's decision to reverse the 2020 budget proposal to skip the mid-life refueling of the aircraft carrier Harry S. Truman, Richardson noted that he had told Congress, which has opposed the decision, that the Truman's early retirement was reversible. "Now we will have to find the resources going forward," to invest in the new technologies, such as unmanned systems, that were to be funded with money saved from retiring

Truman.

Appearing on the same panel, Marine Corps Commandant Gen. Robert B. Neller agreed with Richardson that the challenge of effective leaders was to anticipate the need to change their organizations and policies, rather than waiting to respond to a disaster. Neller cited the changes the Marines are making to respond to the growing threats of cyber and electronic warfare attacks from peer competitors as an example. The first shot of a major conflict would be against the networks and the U.S. forces must prepare to operate without the assured communications they have become accustomed to, Neller said.

"This is a great demonstration of what we've been working on, dynamic deployment."

Chief of Naval Operations Adm. John M. Richardson

Also on the panel, Coast Guard Commandant Adm. Karl Schultz said his service was engaging in more national security operations, such as the recent freedom of navigation transit of the Taiwan Straits, in addition to its heavy load of maritime security and safety missions. Schultz said the Coast Guard was looking forward to getting its first new Arctic icebreaker and hoped to get initial funding for a second one in the fiscal 2021 budget.

Retired Rear Adm.

Mark Busby, administrator of the Maritime Administration, said the materiel readiness of his 46 sealift vessels, which have an average age of 44 years, had gotten a bit worse since his warnings last year. Busby was hopeful Congress would fund the three-part program MARAD and the Navy have urged to modernize his fleet by updating some ships, buying some newer commercial ships and building a small number of vessels. Asked about the threat to global shipbuilding industry from China's rapidly growing ship production capabilities, Busby said U.S. shipbuilding survived only due to Navy production and commercial ships for the Jones Act, which required U.S. built ships for commerce between U.S. ports.

Surge Sealift Force in Need of Urgent Recapitalization, Officials Say



CHUK SAMET, Thailand (Jan. 27, 2019) A Soldier attached to U.S. Army Pacific (USARPAC) directs a vehicle down the ramp of the Military Sealift Command chartered ship M/V Cape Hudson (T-AKR 5066) during an offload at Chuk Samet, Thailand, Jan. 24, 2019.

WASHINGTON – The nation's seaborne logistics capability is

atrophying and in need of rejuvenation, senior government officials said in testimony before Congress. Maintaining older ships is proving more costly than anticipated, driving officials to seek new or used ships to replace some in the current inventory.

Testifying March 7 before a joint hearing of the Seapower and Projections Forces subcommittee and Readiness subcommittee of the House Armed Service Committee were Army Gen. Steve Lyons, commander, U.S. Transportation Command, and retired Navy Rear Adm. Mark Buzby, administrator of the Maritime Administration (MARAD), a Department of Transportation agency that maintains the Ready Reserve Force (RRF), a fleet of sealift and specialized ships available on a reduced operational status for call up to service.

Of interest are the 46 ships of the RRF and the 15 sealift ships operated by the Military Sealift Command. The average age of the RRF ships is 44 years and are becoming increasingly difficult to maintain. Of the RRF ships, 21 are steam-powered, an obsolescent propulsion technology for which qualified mariners to operate it are decreasing in numbers.

Lyons noted that commercial ship companies look to retire ships at the 15-year mark to avoid the maintenance and repair costs of older ships.

He said the readiness of the 15 surge sealift roll-on/roll-off ships currently is only 65 percent.

"The need to recapitalize is urgent," Lyons said. "I believe accelerating the used vessel purchases with the authority ... Congress provided in the last two years is the most practical way ahead."

Buzby said the key to sustaining sealift capability is the "acquisition and conversion of used ships for the RRF, beginning with the purchase of two vessels as authorized by the FY [fiscal year] '18 NDAA [National Defense Authorization

Act].”

He said that in January the Navy, in coordination with U.S. Transportation Command, “provided MARAD with the desired characteristics for replacement ships to be acquired from the commercial market. MARAD then released a request for information to identify suitable ships, and responses are due back [on March 16].”

Buzby said that of the 50,000 large, oceangoing commercial vessels in the world, 181 sail under the U.S. flag, including 82 vessels operating exclusively in international trade and the remainder in domestic trade. He said that these commercial ships are critical to sustaining the employment base for mariners for the RRF. He also noted that of 82 U.S.-flag ships in international trade, MARAD’s Maritime Security Program helps sustain a fleet of 60 militarily useful ships with mariners fully qualified for sealift operations.

“I am deeply concerned about our ability to muster an adequate number of mariners to operate the sealift fleet for surge and sustainment operations during a mobilization lasting about six months,” Buzby said.

Buzby said the Navy is funding some service-life extensions (SLEPs) of MARAD ships, but “the pace of repair is outpacing the pace of service-life extension,” noting that many of the repairs involve structural steel repairs. “We’re not making any headway toward extending that service life.”

He said that the SLEPs for each ship cost from \$800,000 to \$3.5 million, and often three times what was budgeted.

Service-life extensions are not returning the investment that we thought,” Lyons said.

Buzby said that used ships vary in cost “from \$25 million, maybe to \$60 million” depending on age “and a new ship is 26 times that.”

“If you look at the investments the Navy in the out-years, it’s very, very hard to compete a sealift new-build that is 26 times as expensive as an acquired used [ship] solution,” Lyons said.

New or used roll-on/roll-off ships are the primary recapitalization requirement for sealift, Buzby said.

With Order, Trump Eases Path for Transition to Merchant Marine



ARLINGTON, Va. – President Trump has issued an executive order easing the path for active-duty military personnel and veterans who want to transition to service as merchant mariners, a move designed to open jobs to veterans while strengthening national security.

The executive order, issued March 4, stated its purpose as promoting “employment opportunities for United States military veterans while growing the cadre of trained ... mariners available to meet ... requirements for national and economic security.”

Many current and former sailors and Coast Guardsmen have extensive experience in ship-handling, navigation and engineering applicable to service in the merchant marine, but in the past, they have faced bureaucratic obstacles and expenses in the thousands of dollars to make the transition.

“It is the policy of the United States to support practices

and programs that ensure that members of the United States armed forces receive appropriate credit for their military training and experience, upon request, toward credentialing requirements as a merchant mariner," the order stated. "It is further the policy of the United States to establish and maintain an effective merchant marine program by providing sufficient support and resources to active-duty and separating service members who pursue or possess merchant mariner credentials."

The order continued: "A robust merchant marine is vital to the national and economic security of the United States. Credentialed United States merchant mariners support domestic and international trade, are critical for strategic defensive and offensive military sealift operations and bring added expertise to federal vessel operations. Unfortunately, the United States faces a shortage of qualified merchant mariners. As our strategic competitors expand their global footprint, the United States must retain its ability to project and sustain forces globally. This capability requires a sufficient corps of credentialed merchant mariners available to crew the necessary sealift fleet. Attracting additional trained and credentialed mariners, particularly from active-duty service members and military veterans, will support ... national security requirements and provide meaningful, well-paying jobs to ... veterans."

Trump ordered the secretaries of defense and homeland security to, within a year, identify all military training and experience within the applicable service that may qualify for merchant mariner credentialing and submit a list of military training and experience to the Coast Guard National Maritime Center to determine whether such training and experience counts for credentialing purposes.

The secretaries also are to provide for waiver of licensing fees for active-duty personnel and pay for Transportation Worker Identification Credential (TWIC) cards.

Buono Named New U.S. Merchant Marine Academy Superintendent

WASHINGTON – Maritime Administrator Mark Buzby announced Jack Buono as the new superintendent for the U.S. Merchant Marine Academy Nov. 2. Buono will take command at the academy on Nov. 9. He most recently served as president and CEO of ExxonMobil's shipping subsidiary, SeaRiver Maritime Inc.

"As a Kings Point graduate who spent his entire career in maritime leadership roles, Mr. Buono will help educate and inspire the next generation of maritime cadets," Buzby said.

Following his graduation from the U.S. Merchant Marine Academy, Buono worked his way up from a U.S. Coast Guard-licensed third mate to an unlimited master mariner with ExxonMobil Corp. In 1991, he transferred ashore and, after rising through several management positions, was elected to president and CEO of SeaRiver, where he served until his retirement in 2016 after 38 years with ExxonMobil and SeaRiver.

"Jack Buono is the ideal candidate to take the Academy to the next level," Buzby said. "He has impeccable credentials on the waterfront and, as an alumnus, fully understands the academy's mission to provide its students with the highest caliber of training and education needed to lead afloat and ashore."

Buono received a Bachelor of Science in marine transportation with a minor in management from the U.S. Merchant Marine Academy in 1978 and was commissioned an ensign in the U.S. Naval Reserve, where he served for 11 years.

The U.S. Merchant Marine Academy at Kings Point, New York is

one of the five federal service academies. This year, it celebrates its 75th anniversary, having been dedicated in September 1943 to provide the nation with a steady source of highly trained merchant marine officers and naval reserve officers. Today, graduates serve not only in the commercial merchant marine, but also on active duty in all branches of the armed forces.

The U.S. Department of Transportation's Maritime Administration is responsible for overseeing the U.S. Merchant Marine Academy, including the hiring of key academy positions. As part of the selection process, Buono met with a number of midshipmen, faculty and staff from the U.S. Merchant Marine Academy, in addition to alumni and industry leaders.