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Not Enough Maritime Capability

The Challenge of Reinforcing Europe

Lieutenant Colonel Colin Smith and Jim Townsend

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About the Author

LIEUTENANT COLONEL SMITH is a Marine holding the military specialties of combat engineer officer and foreign area officer (FAO). The former Commandant of the Marine Corps Senior Military Fellow to the Center for a New American Security (CNAS), he currently serves as Deputy Director, CAPSTONE, National Defense University. Prior to joining CNAS he twice served as an attaché, first in Riga, Latvia, as the senior defense official and defense attaché and then in Moscow as the Marine attaché. In between those tours he commanded 1st Combat Engineer Battalion, 1st Marine Division. LtCol Smith has served in several other engineer and FAO billets across the globe and in combat over his 26-year career.

The author's views are his own and do not reflect those of the Department of Defense or the Marine Corps.

JIM TOWNSEND is an adjunct senior fellow at CNAS, where he is the co-host of the podcast "Brussels Sprouts" and writes the transatlantic defense news feature "The Dish." In 2017, he completed eight years as Deputy Assistant Secretary of Defense (DASD) for European and NATO Policy, capping 34 years of working in defense and foreign policy, mostly on European and NATO issues.

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Executive Summary

Russia's actions in Ukraine in 2014 marked a clear shift in Russian foreign policy, with the Kremlin pursuing a more assertive and aggressive approach to Europe and the West. Russia's resurgence has meant that the United States again must seriously consider a possible conflict in Europe in its military plans. Central to the defense of NATO allies is a requirement for U.S. reinforcement of Europe, and U.S. reinforcement in turn depends on U.S. maritime shipping, which faces a number of critical challenges.

This paper examines the current capability and availability of U.S. shipping to meet U.S. strategic sealift needs. It describes efforts by the United States to modernize and sustain the capacity required for strategic goals, including the reinforcement of Europe, and examines how the United States could leverage allied commercial and sealift capacity to address potential gaps. Finally, the paper identifies recommendations for addressing these challenges.

U.S. logistical capabilities that are required to reinforce Europe, including sealift capabilities, have atrophied since 1989. Competing naval requirements make addressing future sealift shortages unlikely to be a top funding priority, while complicated laws hamper quick solutions to filling maritime shortfalls. Until U.S. shipbuilding can fill the gaps, workarounds such as using allied maritime assets to ship U.S. reinforcements must be considered. The requirement to reinforce Europe is too urgent not to consider all alternatives to addressing future shortfalls.

Recommendations

- The U.S. Maritime Administration (MARAD) should seek legislative relief from the current restriction in U.S. Code that limits the purchasing of foreign-built ships; if changes are not possible, Transportation Command's Maritime Security Program (MSP) should increase the number of commercial vessels in the program.
- MSC and MARAD should consider entering into bilateral agreements with allies to meet U.S. sealift needs, identifying specific ship-by-ship matches of projected shortfalls with available allied ships that would be available to augment the U.S. fleet in a crisis.
- MARAD also should conduct a study on alliance and partner shipping in the Indo-Pacific theater that could be used to inform efforts to augment maritime shipping in that theater in a crisis, thereby freeing up U.S. shipping for use elsewhere.
- MARAD should develop a system that gives certification credit to mariners operating on non-U.S.-flagged ships, which could count toward U.S. certifications, with minimal retraining or testing, similar to college transfer credits. In doing so, MARAD could potentially deepen the pool of available mariners to crew U.S.-flagged ships in the reserve fleet.

Introduction

For 25 years after the collapse of Soviet Union, the United States and Europe no longer viewed Russia as the substantial military threat of prior decades. U.S. defense posture reflected this reality as it accepted greater risk in Europe to focus forces on the Middle East and the rebalance to Asia. Russia's illegal annexation of Crimea in 2014 upended this status quo, however, and snapped NATO back into a reality that most allies thought had ended with the Cold War. Russia's actions in Ukraine marked a clear shift in Russian foreign policy with the Kremlin pursuing a more assertive and aggressive approach to Europe and the West. Russia's resurgence has meant that the United States again must seriously consider a possible conflict in Europe in its military plans and posture—though of a different tenor than the Cold War. Not only has this revitalized threat stressed demands on allied force capacity, but it has tested military muscle memory neglected since the early 1990s.

Central to U.S. contingency planning for a resurgent Russia is a requirement for U.S. reinforcement of Europe in the event of a conflict on European soil. Given the drawdown of permanently deployed U.S. forces in Europe since 1990, the allies are dependent on U.S. reinforcement, or the ability of the United States to relocate forces to any area at risk within the alliance in order to strengthen military capabilities as a means of conflict prevention, crisis management, or defense. The ability of the United States to reinforce, in turn, depends in part on U.S. shipping capacity, the shortage of which was a problem even during the Cold War. The solution during the Cold War included pooling of maritime vessels from NATO nations. But absent the Soviet threat the need to pool vessels dissipated. Today, the potential shortage of U.S. maritime shipping is especially acute—little has been done in the intervening years to improve such capacity. Although the reinforcement requirement is now a part of U.S. planning to defend Europe, there are few options to fill the gap in available ships, especially in the short term.

> **Today, the potential shortage of U.S. maritime shipping is especially acute.**

This paper examines the current availability of U.S. shipping to meet U.S. reinforcement needs in case of conflict in Europe. We use U.S. reinforcement of Norway in a potential conflict scenario to illustrate the nature of the larger reinforcement challenge today and possible solutions. After reviewing the state of U.S. sealift and maritime capabilities, the paper describes how the United States approaches efforts to reach the capacity required to reinforce Europe. It then examines how the United States could leverage allied commercial and sealift capacity to address current gaps and identifies recommendations for how a short-term fix could be implemented.

Background on U.S. Reinforcement of Europe and Norway in the Cold War

The ability of NATO to deter Russian aggression in Europe is based on maintaining a conventional military capability backed by U.S. extended nuclear deterrence. This arrangement was sufficient for deterring Soviet aggression in Europe for 40 years. During the Cold War, conventional deterrence focused on the territorial defense of the alliance, with the core of alliance military capability coming from approximately 400,000 U.S. troops permanently deployed in Europe.[1] These U.S. and other allied forces were backed up by units in the United States that would reinforce the alliance, if necessary, by sailing across the Atlantic following sea lines of communication that would have been familiar to veterans of World Wars I and II.

To achieve the complex movement of troops and equipment that would be required for reinforcement safely and swiftly, the United States and NATO established supply lines guarded by military bases and composed of logistical infrastructure stretching from the United States across the Atlantic (with bases in Iceland and the Azores) to ports in Europe. Once in Europe, U.S. forces would be sent through a network of transportation infrastructure to wherever they needed to go. To make sure this reinforcement system worked, the United States and NATO held exercises. The largest of these was called Reforger (Return of Forces to Germany), an annual exercise whose goal was to move multiple U.S. divisions across the Atlantic to Germany in a manner of days.

Norway

Beginning in the 1970s, Norwegian planners felt that even with this well-rehearsed reinforcement scheme, U.S. forces would not be able to reach Norway by ship in time to hold back a Soviet advance into northern Norway. NATO forces were due to arrive in Norway even later in such a scenario—after U.S. troops. To save time, the U.S.-Norwegian Bilateral Study Group developed a prepositioning scheme whereby U.S. Marine equipment

was prepositioned in caves in the Trondheim area in central Norway. A U.S. Marine Expeditionary Brigade (the Norwegian Airlifted Marine Expeditionary Brigade or NALMEB) would fly into Norway, draw its equipment from the caves, and quickly move up to northern Norway to join with Norwegian forces to oppose a Soviet invasion force.

Once the Cold War ended and the Soviet Union collapsed, Russia was no longer deemed an imminent threat so NATO planning focused largely on out of area operations. The United States and Norway maintained the NALMEB concept, now MCPPN (Marine Corps Prepositioning Program Norway), including maintaining Marine equipment prepositioned in Trondheim, but for years the NALMEB was rarely exercised.

As the post–Cold War era progressed, the skills that NATO and U.S. planners and logisticians had developed through planned and rehearsed mass reinforcement of Europe atrophied. The United States also cut back on the maintenance of its maritime capability, resulting in a cargo fleet that was less ready to quickly reinforce Europe. U.S. defense spending on naval and maritime equipment grew tighter in the 2000s even while military operations grew in number. This forced the Pentagon to prioritize the threats that needed to be addressed first above those viewed as lower priority and where the risk of underfunding was acceptable. Defense planners long determined that Europe was the place to take risk. Russian aggression in Ukraine in 2014, however, convinced the alliance that Russia's invasion of Georgia in 2008 was not a one-off occurrence. From that point on, the United States and NATO partners reclassified Russia as a threat. For the United States, recovering its ability to reinforce Europe in a crisis scenario became paramount. The Marine Corps reinvigorated the MCPPN program in 2012 as it transitioned from predominantly engineer and transportation equipment to a Marine Air Ground Task Force capability, and U.S. Army Brigade Combat Teams began to rotate back into Europe by ship in 2017, which they continue to do today.[2]

As the post–Cold War era progressed, the skills that NATO and U.S. planners and logisticians had developed through planned and rehearsed mass reinforcement of Europe atrophied.

If the United States needed to reinforce Europe today, certain scenarios would require that planners prioritize reinforcement convoys, meaning that certain theaters and/or allies would fall lower in the queue for shipping. In other words, leaders would have to decide which theaters to resupply or reinforce first. This could negatively impact Norway if it were to fall low in the queue for reinforcements.

State of U.S. Sealift and Maritime Capabilities

The United States' ability to move military personnel, equipment, and supplies via sealift is once again a critical component of America's defense strategy—not only for reinforcing Europe, but also for credible deterrence in the Indo-Pacific theater. As highlighted by the 2018 report to Congress submitted by the Deputy Chief of Naval Operations for Fleet Readiness and Logistics (N4), approximately 90 percent of Marine Corps and Army combat equipment is transported by sea during surge deployments.[3] Sealift is also a critical component of the Marine Corps' overall deployment strategy for all operations larger than Marine Expeditionary Unit level. Years of underfunding have left the United States with a shortage of U.S. maritime shipping capacity. Military Sealift Command (MSC), a component of U.S. Transportation Command (TRANSCOM), has mapped out a three-phased plan to address the shortage of shipping.[4] This plan has several flaws of its own, however, discussed below.

Sealift Categories and Status

The overall sealift capacity requirement is set by TRANSCOM, based on the U.S. defense strategy and globally integrated operational plans. It is the responsibility of MSC and MARAD to acquire the resources to meet the required sealift capacity by some combination of the three following categories.

Afloat Prepositioning. This category contains the most modern and ready shipping and consists of 24 vessels, which are strategically prepositioned globally with on-board military equipment ready to respond on short notice to immediate military needs.[5] This program includes the ten ships that make up the Marine Corps' Maritime Prepositioning Force and includes the U.S. Army prepositioned war stock on board large, medium-speed, roll-on/roll-off ships. This fleet is well maintained, fully manned, and commercially operated, with an average ship age of 25 years.

Commercial Sustainment. This category is made up of 60 modern and ready U.S.-flagged ships that are civilian owned and operated.[6] This commercial shipping capability is either part of the MSP or the Voluntary Inter-modal Sealift Agreement, designed to assure the availability of sufficient U.S. commercial sealift capability in an emergency to sustain U.S. military operations overseas. The Commercial Sustainment program not only provides vessels but also the infrastructure, terminal facilities, global network of logistics, and equipment that the parent companies of these vessels have at their disposal. Along with the afloat prepositioning vessels, these are the most ready and capable ships available, and commercial vessels are the most affordable of the three components of sealift.

Surge Sealift. This category of sealift would be called into action only in an extreme emergency. These aging ships are part of a larger National Defense Reserve Fleet (NDRF). Strategically moored around the country, they include broken down into two sub-categories: MSC Surge Sealift and MARAD Ready Reserve Force (RRF) ships.[7]

- **MSC Surge Sealift** consists entirely of roll-on roll-off (RO/RO) vessels with an average age of 31 years (as of 2019), several of which have been evaluated as in poor condition requiring service life extension or replacement.[8]
- **The MARAD RRF fleet** is a combination of RO/ROs and specialty ships maintained in a reduced status, which can be activated when needed. At an average age of just less than 35 years for the RO/RO ships, almost half are scheduled for a service life extension program (SLEP). Of greater concern are the specialty ships, all of which need replacement or service life extension with an average life expectancy of only nine years left in a 50-year planned life span.[9] The readiness of all three categories of sealift need to be addressed, but Surge Sealift is the most urgent.

According to TRANSCOM, MSC meets the required 15.3 million square feet of government provided sealift (see Figures 1 and 2), but that ability is quickly eroding. Forecasts suggest that as early as 2023 to 2027 the United States no longer will have the required capacity. Moreover, the shortfalls could occur earlier than 2023, because current calculations do not take into account changing planning requirements that will be generated as the United States transitions from set regional plans to globally integrated plans. Cost overruns and procurement delays also are likely to mean that the sealift capacity shortfalls will occur earlier than 2023.

FIGURE 1: STRATEGIC SEALIFT FLEET COMPOSITION[10]

Afloat Prepositioning	Surge Sealift	Commercial Sustainment
Organic (government-owned), 15.3 M ft²		*Commercial supplement, 4.3M ft²*
MSC Prepositioning ■ Total number of vessels: 24 » RO/RO: 15 » Special Capability: 9 ■ Average RO/RO age: 24 years ■ Capacity: 4.7M ft² RO/RO ■ Status: Forward deployed ■ Ownership: Government owned, commercially operated	**MSC Surge Sealift** ■ Total number of vessels: 15 (all RO/ROs) ■ Average age: 30 years ■ Capacity: 4.5M ft² RO/RO ■ Status: Reduced operating ■ Ownership: Government owned, commercially operated **MARAD Ready Reserve Force** ■ Number of vessels: 46 » RO/RO: 35 » Special Capability: 11 ■ Average age: 44 years ■ Capacity: 6.1M ft² RO/RO ■ Ownership: Government owned, commercially operated	**Maritime Security Program** ■ Number of vessels: 60 » RO/RO: 18 ■ Capacity: 3M ft² RO/RO* ■ Status: Engaged in international trade (until required by DOD) ■ Ownership: Commercially owned ■ MSP ship operators receive annual stipend to offset costs of remaining U.S. Flagged **Additional ~1.3M ft2 provided by Voluntary Intermodal Sealift Agreement RO/ROs (not in MSP) and alliance capacity based on scenario.*

FIGURE 2: U.S. SURGE SEALIFT AND MARAD RESERVE FLEET[11]

35 MARAD RRF Roll-On/Roll-Off Vessels

	Vessel	Remaining Service Life (Years)	SLE* Programmed
Material Condition	Cape Washington	14	
	Cape Wrath	14	
	Cape Henry	11	
	Cape Kennedy	11	
	Cape Knox	10	
	Cape Hudson	11	
	Cape Horn	11	
	Cape Victory	16	
	Cape Vincent	16	
	Cape Race	19	X
	Cape Ray	19	X
	Cape Rise	19	X
	Capella	14	
	Algol	15	
	Cape Orlando	13	
	Cape Edmont	13	X
	Cape Diamond	14	X
	Cape Decision	15	X
	Cape Domingo	15	X
	Cape Douglas	15	X
	Cape Ducato	15	X
	Denebola	15	
	Altair	15	
	Bellatrix	15	
	Regulus	15	
	Pollux	15	
	Antares	14	
	Adm Callaghan	9	X
	Cape Island	19	X
	Cape Isabel	18	X
	Cape Inscription	18	X
	Cape Intrepid	18	X
	Cape Texas	19	X
	Cape Taylor	19	X
	Cape Trinity	19	

15 MSC Surge Sealift Roll-On/Roll-Off Vessels

	Vessel	Remaining Service Life (Years)	SLE* Programmed
Material Condition	Watson	30	
	Bob Hope	30	
	Benevidez	35	
	Mendonca	33	
	Brittin	34	
	Fisher	31	
	Gilliland	14	X
	Wheat	19	
	Pless	15	
	Martin	14	
	Gordon	15	X
	Obregon	17	
	Shughart	22	X
	Yano	22	X
	Kocak	13	

11 MARAD RRF Special Capability Vessels

	Vessel	Remaining Service Life (Years)	SLE* Programmed
Material Condition	Cape Mohican	15	X
	Flickertail State	11	X
	Gopher State	15	X
	Cornhusker State	11	X
	Cape May	14	X
	Keystone State	11	X
	Gem State	8	X
	Grand Canyon State	7	X
	Curtiss	3	X
	Wright	4	X
	Petersburg	5	X

MISSION ASSURANCE CONFIDENCE

■ High ■ Moderate ■ Low

** SLE = Service Life Extension includes FY17 and FY19 President's Budgets*

U.S. Department of Defense Sealift Plans

The plan to sustain required sealift capacity and make up for projected shortfalls, as presented in the CNO (N4) report to Congress, is a three-phased approach: 1) extend the service life of existing ships in the fleet, 2) purchase used ships, and 3) build new ships.[12] Funding was programed in the FY 2019 budget to maintain the current lift capacity only through FY26, and that funding already is falling short of planned goals.[13]

Extending Service Life

A key component of the plan to address fleet issues quickly is extending the service life of existing sealift vessels by ten years through the SLEP. Thirty-one vessels have been identified and programmed for service life extension. According to MSC and MARAD officials, and as detailed in an August 2017 GAO report, "surge sealift ships are experiencing increases in maintenance deferrals as a result of limited funding—where work that cannot be executed or funded in the current fiscal year is deferred to future fiscal years."[14] The age of the ships combined with the deferred maintenance has driven the need for more extensive repairs. "SLEPing" aging assets is an often-used tool by DoD to keep assets running during lean budget years, but in the case of old ships SLEPing just prolongs the inevitable need for replacement. The projected cost through the FY19–23 Fiscal Year Defense Plan (FYDP) for the service life extensions is $147.4 million.[15] Not included in this number is the increased cost per ship to service and maintain an older vessel versus a newer one. This plan also appears to go against the most recent 2019 National Defense Authorization Act (NDAA), which favors investment in new equipment as well as research and development of vessels over continued repair of legacy ships.[16] Unfortunately, according to MARAD officials, because of the age of the ships and challenges faced with their use, FY19 funds budgeted for SLEP were reprogrammed to be used for unplanned critical overhaul repairs.[17]

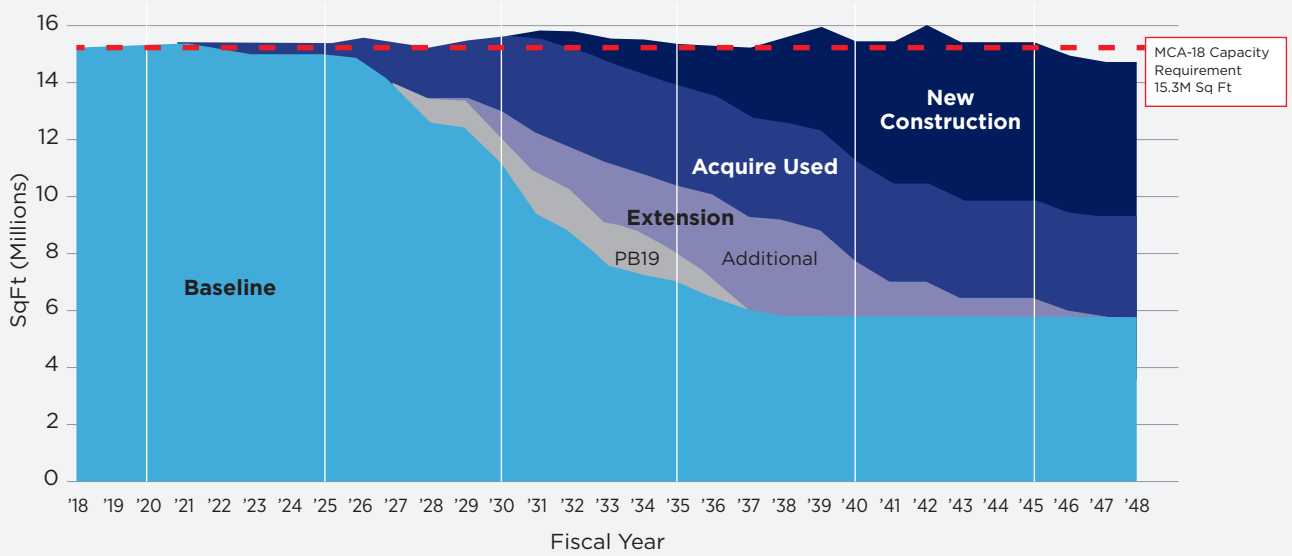
Purchasing Used Ships

Acquiring used ships to replace aging vessels in the RRF, especially those already participating in the Maritime Security Program, is another viable alternative and part of the current recapitalization plan. This part of the plan also has challenges. In 2018, MARAD submitted a request for information to purchase used ships, which yielded 64 potential vessels for purchase, 13 of which already were U.S. flagged and participating in MSP.[18] However, none of the available ships were U.S. built.[19] This is a problem because the legislation establishing the National Defense Sealift Fund stipulates that funds for sealift programs only can be used for acquisition of reserve fleet vessels built in U.S. shipyards.[20] An exception to this clause allows for the secretary of defense to purchase any used vessel (whether built in the United States or not) specifically for the RRF, but with a limitation of purchasing no more than seven foreign-built vessels.[21] There is a further caveat that states: "The Secretary may not use the authority under this paragraph to procure more than two foreign constructed vessels unless the Secretary submits to Congress...a certificate that the Secretary has initiated an acquisition strategy for the construction in United States shipyards of not less than ten new sealift vessels; and of such new sealift vessels, the lead ship is anticipated to be delivered by not later than 2026."[22] Even if Congress accepts the secretary's proposal for construction of new U.S.-built ships and meets the required time line, the limitation to procure only seven foreign-built used ships will not fill the gap because there simply are not enough used U.S.-built ships available for purchase.

Approximately 90 percent of Marine Corps and Army combat equipment is transported by sea during surge deployments.

Figures 3 and 4 illustrate the impact of the two-ship limitation relative to the desired acquisition of up to 26 used vessels (the estimated total needed). The lime green section in the tables represents the planned acquisition of used ships; purple represents new ship construction. As evidenced by the second table, without procurement of used ships, it is not possible to meet capacity requirements.

FIGURE 3: PLANNED RECAPITALIZING OF SURGE SEALIFT SQUARE FOOTAGE[23]



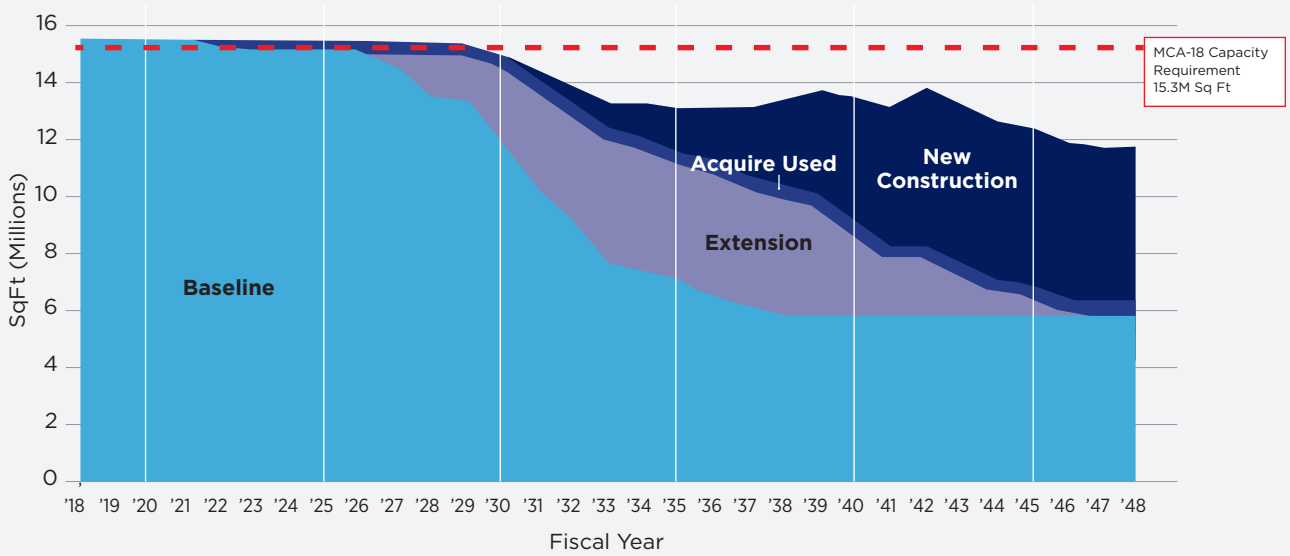
Building New Ships

The last clause in the U.S. law discussed above concerning the requirement to build new ships in order to buy used ones has made urgent the third phase of recapitalization: the design, contracting, and procurement of new vessels. The Navy's plan for new ships is still being finalized but centers around a new ship design called Common Hull Auxiliary Multi-Mission Platforms (CHAMP). The intent for CHAMP is a "new construction design effort using common hulls to potentially recapitalize five different missions: sealift, aviation logistics support, hospital, repair tender, and command and control."[25] The Navy's new 30-year recapitalization plan calls for two variants of CHAMP, one focused on moving personnel, the other on moving cargo. Initial procurement of the sealift variant of CHAMP is programmed for FY25 with delivery in FY28, but "with the intention to accelerate procurement for a FY2026 delivery. This acceleration would meet the conditions of the FY2019 NDAA option which could authorize the Navy to buy an additional five used, foreign-built vessels if they are able to deliver a new, U.S.-built product by FY2026"[26] The 2019 NDAA included an $18 million bump above what was requested to accelerate the CHAMP program.[27] Based on the Navy's plan, Congress already has authorized the purchase of the first two used foreign-built ships in FY21 and FY22, but has only conditionally authorized purchase of five more used foreign-built ships pending the aforementioned U.S.-built CHAMP construction plan.[28]

The components of the three-phased approach to meet capacity requirements all have challenges that will make it difficult to meet global sealift goals requirements in a future crisis. Programed funding in the FY19 budget maintains current capacity through FY26, and does not account for overruns and design changes that historically come with the build of an entire new class of ship (CHAMP). Service life extension of existing ships is the most expedient fix, but is the least cost-effective approach and will only get more expensive as time passes, sapping funds from other portions of the plan. Additional funding for used ships could be a viable solution, but this too would require additional funding and changes to the current law, which would meet strong objection from U.S. shipbuilders relying on the protections of the Jones Act to maintain their industry.[29]

Service life extension of existing ships is the most expedient fix, but is the least cost-effective approach and will only get more expensive as time passes, sapping funds from other portions of the plan.

FIGURE 4: SQUARE FOOT PROJECTION WITH ONLY TWO USED VESSELS ACQUIRED[24]



Additional Challenges

Shortage of U.S.-flagged Ships

For commercial ships to participate in the MSP, tankers must be less than 20 years, while all other vessels cannot be older than 25 years.[30] Given the age of the U.S.-built fleet, there is a shrinking pool of U.S.-built ships that can qualify. According to the GAO, since 2006 MSP operators have replaced more than 70 ships in the program with newer, more capable vessels, the majority all foreign built (but U.S. flagged).[31]

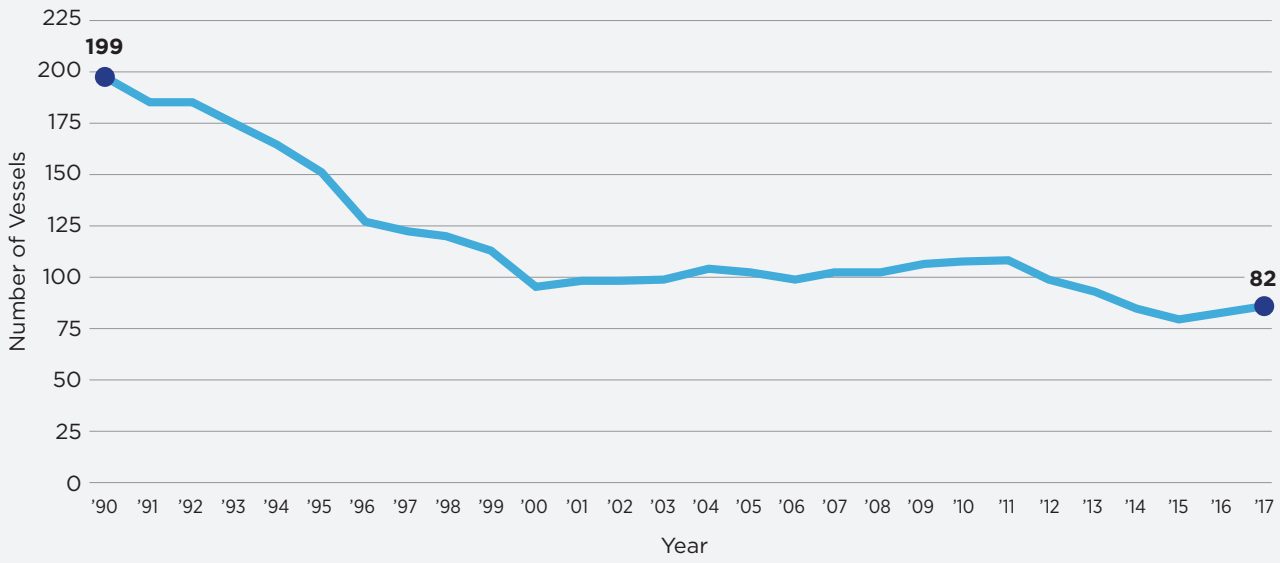
MARAD estimates that the cost to shipowners of having their vessels remain U.S. flagged and be eligible for the MSP program (rather than exiting the program and saving costs by becoming foreign flagged) are more than $6.2 million per year.[32] The high operating costs for U.S.-flagged vessels stem from having to meet strict U.S. Coast Guard standards and the high pay and retirement benefits required for crews. To make up for this added expense to shipowners, vessels participating in the MSP receive a $5 million stipend from MARAD as well as cargo preference for all U.S. government cargo. Without the cargo preference, it would not be financially viable for most MSP vessels to remain U.S. flagged.

According to MARAD officials, doubling the current MSP program would be of significant benefit to the overall sealift program, but such growth under current U.S. law and policy is limited: The MSP currently is capped at 60 vessels due to funding limitations.[33] More than 30 vessels (all currently foreign flagged) were queued for only two available MSP spots, even with the stringent operational requirements and need to switch registry to a U.S.-flagged vessel.[34] This demonstrates that availability of qualified vessels is not the problem; the problem is the 60-ship cap caused by funding shortfalls.[35]

Shortage of U.S.-Certified Mariners

As the fleet of U.S.-flagged ships continues to shrink, it will impact not only the pool of available ships that can be used for transporting U.S. government cargo, but also the number of mariners with valid U.S. certifications. The availability of trained mariners, all of whom are required to have current U.S. maritime certifications, is a significant issue when the United States must quickly crew the RRF. Only 1.5 percent of U.S. international oceangoing trade by weight is on U.S.-flagged vessels, and as of 2018, the total number of U.S.-flagged vessels engaged in international trade is only 81, a 59 percent decrease since 1990 (see Figure 5).[36]

FIGURE 5: U.S.-FLAG, OCEANGOING, INTERNATIONALLY TRADING FLEET, CALENDAR YEARS 1990 THROUGH 2017[37]



Both MSC and MARAD are responsible for the upkeep of their respective sealift fleets, but only MARAD has the responsibility of ensuring there are enough trained mariners to man the fleet. Fully trained mariners, who may have been educated in the U.S. maritime system but are currently employed on foreign-flagged ships, may not qualify to crew an RRF ship. The RRF fleet is minimally manned on a daily basis so the RRF relies heavily on crew augmentation to activate the ships. MARAD officials estimate that at current levels, in any prolonged conflict there would be a significant shortage of qualified U.S. mariners.[38] Another challenge with the older ships is that very limited numbers of mariners are left who know how to operate the old steam systems on these aging ships. Technology has changed significantly since they were built decades ago, and these systems are not found on modern oceangoing ships.

Solutions to Fill the Gap in U.S. Sealift and Maritime Capabilities

Allied commercial sealift capability can help fill the gap by augmenting U.S. maritime sealift in the near and long terms. Certain allied nations have the ability to put into government service all or a portion of their fleets in a very short period of time. For example, Norway, with a maritime fleet of more than 1,800 vessels—all of which are tracked daily around the globe—can recall Norwegian-flagged vessels within 72 hours for official government use in a time of crisis via the Norwegian Maritime Authority. Foreign-flagged vessels owned by Norwegian shipping companies also can be reflagged as required. The broad spectrum of types of ships within this fleet can replicate every type of ship in the existing U.S. fleet of commercial ships with comparable capability. In these scenarios, allies have advantages including the proximity of their ships to the European theater, that they come fully crewed, and that they most likely know the ports and area of operation in Europe.

Selecting specific allied ships in advance and ensuring they meet the same operational criteria as those in the MSP would provide the United States a stopgap measure until new U.S. ships could be built or used ships procured. From a purely financial standpoint, including allied shipping into the U.S. wartime calculus can bring a cost savings. Multiple sources indicate that using commercial shipping to sustain the sealift triad is cost effective and provides for the most modern fleet with the most professionally trained mariners, whereas the older ships of the RRF are the costliest portion of the triad.[39] U.S officials noted that the same dollars spent on a fully crewed MSP vessel only buys nine or ten mariners who are not as well trained, and a ship that needs additional time just to be ready for use in the RRF.[40] Allied maritime capability and capacity also could be earmarked for use in lieu of costly service life extensions of ships decades older than the ones allies could provide, and which will need to be replaced anyway. The age-old question of when to reinvest in newer equipment versus extending older equipment to avoid a gap in capability/capacity

can be bridged using allied shipping at a reduced cost, allowing for experimentation to help the United States better understand the nature of its sealift requirements.

Specialty ships also are in critical need of replacement, including such ships as the auxiliary crane ships, which will reach their programmed service lives of 50–55 years by 2024, and fleet oilers, which have seen a 250 percent increase in mission-limiting equipment casualties over the past few years.[41] These are unique capabilities beyond the standard RO/RO and bulk cargo/container ships that purchasing used and building new is trying to alleviate. Allies operating in the North Sea that service numerous oil and gas platforms have a particularly robust capacity to augment this specialty ship capability.

Many allied operated and foreign-flagged ships have similar standards and operating procedures as U.S.-flagged ships, some of them U.S.-built ships themselves, which operate under a foreign flag to reduce operating costs. These vessels are maintained at a high state of readiness, and their mariners have the highest levels of knowledge and certifications in their field. They just are not U.S. certified. This pool of mariners in time of conflict would become critical and should be accounted for in contingency plans as available U.S.-certified mariners become scarce.

Conclusion and Recommendations

As in the Cold War, swift U.S. reinforcement of Europe is critical to deterrence. Unfortunately, the United States does not have the luxury of time to restore its logistical capability to reinforce Europe; that capability has atrophied since 1989. Addressing sealift shortages also will not likely be a top funding priority, and the complicated maritime laws such as the Jones Act, written to protect the U.S. shipping industry, will only hamper quick progress in filling maritime shortfalls. Until U.S. shipbuilding can fill the gaps, workarounds such as using allied maritime assets to ship U.S. reinforcements must be considered. The requirement to reinforce Europe is too urgent not to consider all alternatives to addressing future shortfalls.

Recommendations

1. In order to make up the projected gap in shipping, MSC and MARAD should seek legislative relief from the current restriction in U.S. Code that limits the purchasing of foreign-built ships. With only a maximum of seven foreign-built ships allowed (assuming the Navy can accelerate its design and construction of the first CHAMP by 2026), there is still the need for an additional 19 U.S.-built vessels to reach the planned acquisition goal of 26 used vessels.
2. If changes to the U.S. Code are not possible, the MSP should raise the 60-ship cap and increase the number of commercial vessels in the program. An increase to the MSP fleet using foreign-built but U.S.-flagged commercial vessels not only would provide ships at a reduced cost when compared to procurement, it also would allow for more mariners to serve and be trained on U.S.-flagged ships. This will address shortages in both manning and ship numbers.
3. MSC and MARAD should consider entering into bilateral agreements with allies to meet U.S. sealift needs, identifying specific ship-by-ship matches of projected shortfalls with available allied ships that would be available to augment the U.S. fleet in a crisis.
4. MSC and MARAD also should conduct a study on alliance and partner shipping in the Indo-Pacific theater that could be used to inform efforts to augment maritime shipping in that theater in a crisis, thereby freeing up U.S. shipping for use elsewhere.
5. MARAD should develop a system that gives certification credit to mariners operating on non-U.S.-flagged ships, which could count toward U.S. certifications, with minimal retraining or testing, similar to college transfer credits. In doing so, MARAD potentially could deepen the pool of available mariners.

Addressing sealift shortages will not likely be a top funding priority, and the complicated maritime laws such as the Jones Act, written to protect the U.S. shipping industry, will only hamper quick progress in filling maritime shortfalls.

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1152 15th Street, NW Suite 950 Washington, DC 20005
t. 202.457.9400 | f. 202.457.9401 | info@cnas.org | cnas.org

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