

REPORT TO CONGRESS

SEALIFT THAT THE NATION NEEDS

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Washington, DC 20350-2000

March 2018

The estimated cost of this report or study for the Department of Defense is approximately \$95,000 in Fiscal Year 2018. This includes \$6,490 in expenses and \$89,000 in DoD labor.

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I. REPORT REQUIREMENT

House Report 115-404, the conference report accompanying H.R. 2810, the Fiscal Year (FY) 2018 National Defense Authorization Act (NDAA), requires the Navy in consultation with Commander, U.S. Transportation Command and the Maritime Administrator, to provide a report to the congressional defense committees on sealift recapitalization that includes the following items:

- (1) An assessment, by vessel, of the material condition and remaining service life of the RRF [Ready Reserve Force] component of the NDRF [National Defense Reserve Fleet] and the MSC's surge fleet;*
 - (2) A description of any major modernization program, by vessel, that seeks to extend the service life of the RRF component of the NDRF and the MSC's surge fleet;*
 - (3) A notional acquisition strategy for the next five years to acquire used vessels that describes the following elements:
 - (a) An assessment of U.S.-built ships that could be procured for the RRF;*
 - (b) Total number of used vessels required for purchase;*
 - (c) A proposed timeline for the acquisition of each used vessel, the modernization or conversion of the used vessel and an initial operating capability to align with the retirement of the existing RRF vessel;*
 - (d) A cost estimate for procurement of each used vessel and an assessment of modernization or conversion costs to support delivering a RRF vessel;*
 - (e) A determination of the contracting agency and program office that will be used to procure, modernize or convert the used vessels; and*
 - (f) A determination of which agency or program office will assess the material condition and ability to meet RRF or MSC surge fleet requirements of each used vessel prior to purchase;**
 - (4) A description of the program of record associated with the CHAMP program to include major acquisition milestone events, which shall also include an assessment of the extent to which the CHAMP program could be accelerated;*
 - (5) The fiscal profile, by account, that supports this plan to recapitalize the RRF component of the NDRF and the MSC's surge fleet; and*
 - (6) Additional legislative authorities, if any, necessary to continue meeting Department of Defense sealift requirements while recapitalizing the surge sealift force. Any such authorities should be supported by appropriate analysis and justification.*
- The conferees' intent in revising section 231 of title 10, United States Code, is to provide greater visibility of the Navy's long-term plans for auxiliary vessels. The Navy's annual 30-year shipbuilding plan will now be required to include the ships contained in the auxiliary ship category of Secretary of the Navy Instruction 5030.8, as well as any RRF or MSC surge fleet vessels procured and planned to be procured with Department of Defense appropriations.*

II. EXECUTIVE SUMMARY

Strategic sealift is a key enabler of U.S. power projection and supports the afloat movement of unit equipment and supplies for major ground combat operations. During surge deployments, approximately 90 percent of Marine Corps and Army combat unit equipment is transported by sea. Sealift supports Combatant Commander requirements through (1) Afloat Prepositioning, (2) Surge Sealift and (3) Commercial sustainment shipping.

This report has been developed in collaboration with U.S. Transportation Command (USTRANSCOM) and the Maritime Administration (MARAD). It addresses the requirement included in House Report 115-404 for a Surge Sealift recapitalization strategy report. The sealift recapitalization strategy is comprised of a comprehensive three-phased approach to achieve “Sealift That the Nation Needs.”

The ability to deploy and sustain a sizable land force has been a cornerstone of the nation’s defense strategies and has resulted in an enduring requirement for a ready and responsive sealift fleet. The requirement for Surge Sealift is measured in terms of square footage capacity required to transport, and the ability to roll-on and roll-off (RO/RO) major ground combat equipment and forces. Multiple mobility studies over the years, led by the Office of Secretary of Defense (OSD) from 1992 to 2013, have demonstrated a consistent total requirement of 15.3 million square feet (ft²) of sealift capacity required via organic (government-owned) vessels and 19.6 million ft² required overall. Commercial (non-organic) sustainment shipping provides the remaining square footage requirement. There is a Department of Defense (DOD) mobility study in progress, as directed by Fiscal Year (FY) 2018 NDAA, and will be completed by September 30, 2018. *Table 1* sets forth details regarding the current composition of the Strategic Sealift Fleet.

Sealift That the Nation Needs

Table 1

AFLOAT PREPOSITIONING	SURGE SEALIFT	COMMERCIAL SUSTAINMENT
<i>Organic (government-owned), 15.3M ft²</i>		<i>Commercial supplement, 4.3M ft²</i>
<p><u>MSC Prepositioning</u></p> <ul style="list-style-type: none"> • Total number of vessels: 24 <ul style="list-style-type: none"> • 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 	<p><u>MSC Surge Sealift</u></p> <ul style="list-style-type: none"> • 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 <hr/> <p><u>MARAD Ready Reserve Force</u></p> <ul style="list-style-type: none"> • Number of vessels: 46 <ul style="list-style-type: none"> • RO/RO: 35 • Special Capability: 11 • Average age: 44 years • Capacity: 6.1M ft² RO/RO • Ownership: Government owned, commercially operated 	<p><u>Maritime Security Program</u></p> <ul style="list-style-type: none"> • Number of vessels: 60 <ul style="list-style-type: none"> • 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 <p><i>* Additional ~1.3M ft² provided by Voluntary Intermodal Sealift Agreement RO/ROs (not in MSP) and alliance capacity based on scenario.</i></p>

- (1) Afloat Prepositioning operated by MSC, forward positions Army, Marine Corps, and Air Force unit equipment, ammunition, and provides sustainment. These 24 strategically positioned vessels are able to respond upon 24 hour notice. 15 of the 24 ships are government owned RO/ROs supporting Army Prepositioning Stocks and Marine Corps Maritime Prepositioning Force providing 4.7 million ft² of capacity.
- (2) Surge Sealift consists of 61 government owned ships in reduced operating status located on the East, West, and Gulf Coasts. The surge fleet is comprised of two components. 15 ships, all RO/ROs, managed by Military Sealift Command (MSC) and 46 Ready Reserve Force (RRF) ships owned and managed by the Department of Transportation's (DOT) MARAD, 35 are RO/ROs. The Surge Sealift Fleet has a total RO/RO capacity of 10.6 million ft².
- (3) Commercial Sustainment includes the Maritime Security Program (MSP) with 18 commercial RO/RO vessels providing 3.0 million ft² capacity, supplementing organic capability with commercial follow-on capability. The Voluntary Intermodal Sealift Agreement (VISA), including MSP, provides U.S. flagged commercial capacity on a variable response time. VISA vessels receive cargo preference, but do not receive a stipend unless also enrolled as a MSP carrier. VISA-enrolled RO/ROs (not in MSP) and alliance shipping partners provide an additional 1.3 million ft².

Recognizing there are three components of Strategic Sealift, the primary focus of this report is on replacing aging Surge Sealift RO/RO vessels which enable global employment of ground combat forces. The average age of the current Surge Sealift Fleet is approximately 40 years old, with most projected to reach the end of their service life in the 2030s. The maintenance of these older vessels, with associated obsolete equipment, is challenging and expensive due to increased maintenance costs and incidents of major material failure.

In order to maintain the required capacity, the Navy, OSD, USTRANSCOM, and MARAD have developed a three-phased strategic sealift recapitalization strategy. This strategy includes (1) service life extensions, (2) acquiring used vessels, and (3) new construction of a common-hulled vessel. Details for each are provided in Section V below.

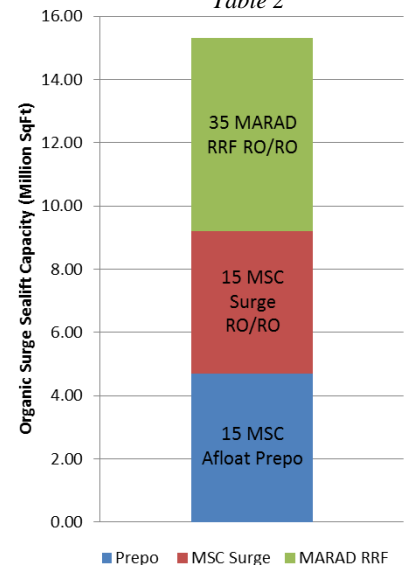
III. STRATEGIC SEALIFT REQUIREMENT

In 1989, the White House promulgated National Security Directive (NSD) 28 ascribing the importance of Strategic Sealift for the nation:

“Sealift is essential both to executing this country’s forward defense strategy and to maintaining a wartime economy. The United States’ national sealift objective is to ensure that sufficient military and civil maritime resources will be available to meet defense deployment, and essential economic requirements in support of our national security strategy. The broad purpose of this directive is to ensure that the U.S. maintains the capability to meet sealift requirements in the event of crisis of war.”

Organic RO/RO Sealift Capacity

Table 2



In recent years, DOD has undertaken multiple mobility studies (from 1992 to 2013) that have revalidated the requirement for approximately 15.3 million ft² of organic Strategic Sealift. Total capacity requirement, as reflected in *Table 2*, is achieved by:

- *Surge Sealift* fleet consists of 15 MSC and 35 MARAD RO/RO vessels.
- *Afloat Prepositioning* includes 15 MSC prepositioned RO/RO vessels which are staged with military equipment and supplies strategically dispersed worldwide to ensure rapid availability during major combat operations or other contingencies. The Maritime Prepositioning Force (MPF) includes 10 RO/RO vessels, and the Army Prepositioning Program contains another 5 RO/ROs.

As directed in the FY 2018 NDAA, the DOD is undertaking a new mobility study that will be completed by September 30, 2018.

IV. CURRENT SHIP MATERIAL CONDITION

An assessment, by vessel, of the material condition and remaining service life of the RRF component of the NDRF and the MSC's surge fleet;

As directed by the requirement in Section I of this report, the material condition and remaining service life of the Surge Sealift assets (including RRF special capability vessels as specifically directed) are described below. This assessment only addresses the current material condition; concerns regarding the fleet remain due to age, increased maintenance and operations costs, and risk of material failure.

In December 2017, MARAD and MSC conducted material condition reviews of all 61 surge sealift vessels. In assessing material condition, both MARAD and MSC rely upon contracted ship managers to provide ship condition inspections, validate vessel self-assessments, submit casualty reports, and maintain maintenance planning logs to evaluate each vessel hull, mechanical, and electrical, electric plant, navigation systems, auxiliary systems, habitability, and cargo systems. Per report requirements, *Table 3* lists all Surge Sealift vessels (to include MARAD RRF Special Capability) in order of their relative material condition (ranked high to low).

The results of the assessment concluded that the majority of the vessels are in good condition. Four MSC Surge Sealift vessels - USNS Obregon, USNS Shughart, USNS Yano and USNS Kocak are in poor overall material condition with low confidence in mission assurance. The Navy is identifying corrective actions for these vessels.

Surge Sealift Material Condition Assessment

Table 3

35 MARAD RRF Roll-On/Roll-Off Vessels			
		Remaining Service Life	16 SLE* Programmed
Material Condition	Vessel		
	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	14	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			
		Remaining Service Life	4 SLE* Programmed
Material Condition	Vessel		
	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			
		Remaining Service Life	11 SLE* Programmed
Material Condition	Vessel		
	CAPE MOHICAN	15	x
	FLICKERTAIL STATE	11	x
	GOPHER STATE	15	x
	CORNHUSKER STATE	11	x
	CAPE MAY	14	x
	KEYSTONE STATE	7	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 to FY19 President's Budgets

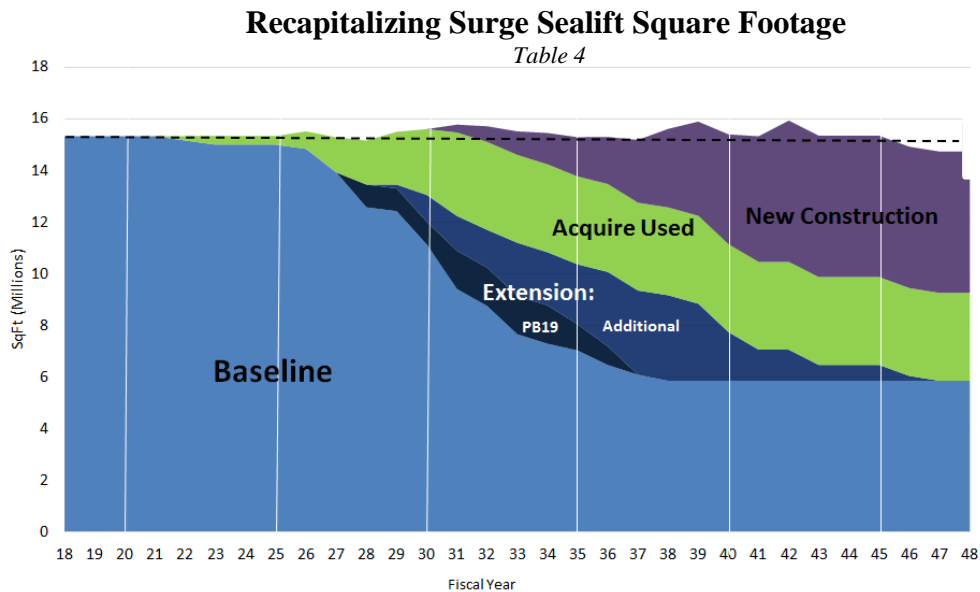
V. PREPARING FOR THE FUTURE: THREE-PHASED APPROACH FOR MAINTAINING SURGE SEALIFT CAPACITY

Maintaining Surge Sealift capacity levels over the next 30 years requires a mix of near-, mid-, and long-term actions. The Navy has developed a cost effective recapitalization strategy with USTRANSCOM and MARAD. The resulting strategy has three major phases:

- A. Service Life Extensions will add roughly 10 additional years to select vessels (typically increasing the service life from 50 to 60 years). Extending service life of vessels is a temporary mitigation as the fleet's average age will continue to increase. This exacerbates the challenge of maintaining older vessels with obsolete equipment and scarce spare parts.
- B. Acquiring Used Vessels is the most cost-effective approach to replacing the aging fleet and bridging the gap for strategic sealift capability until a new construction program comes on line. FY 2018 authority permits the purchase of 2 used vessels (*Table 4* reflects the projection of an additional 24 used vessels).

C. New Construction at U.S. shipyards for Common Hull Auxiliary Multi-mission Platform (CHAMP) vessels is the final element and the long-term solution to sealift and auxiliary recapitalization. Newly constructed vessels would initially be delivered to afloat prepositioned fleets, strengthening the ability to support employment across the full range of military operations.

This integrated strategy addresses near-term needs while establishing a strategically-placed, long-term new shipbuilding construction program at U.S. shipyards. *Table 4* displays how combining service life extensions (PB19 is highlighted separately from future extensions), 26 acquire used vessels, and building 18 new construction CHAMP vessels maintain the current RO/RO capacity requirement of 15.3 million ft².



A. Service Life Extensions

A description of any major modernization program, by vessel, that seeks to extend the service life of the RRF component of the NDRF and the MSC’s surge fleet;

Service life extensions will add an additional 10 years of service to these vessels by undertaking targeted maintenance and select modernization of ships’ critical systems (including propulsion, machinery, and control systems) and preservation of the hull and structures. Decisions to extend the service life of vessels are influenced by factors such as material condition, military utility, cost, and dry dock schedules. Service life extension work packages are evaluated to ensure the necessary equipment, systems, and hull maintenance are updated or repaired to maintain the proper certifications necessary to operate reliably. Evaluation of specific ship candidates is an ongoing analysis as material condition and other factors are updated. Across the FY 2017 to FY 2019 President’s Budget cycles, the Navy programmed service life extensions for 31 ships. These vessels are reflected in *Table 3*.

The Navy will continue to identify other vessels suitable for extensions in subsequent budget cycles, subject to the requirements of the Sealift That the Nation Needs. Current programmed funding for service life extensions maintains capacity through FY 2026.

B. Acquiring Used Vessels

A notional acquisition strategy for the next five years to acquire used vessels that describes the following elements: An assessment of U.S.-built ships that could be procured for the RRF; Total number of used vessels required for purchase; A proposed timeline for the acquisition of each used vessel, the modernization or conversion of the used vessel and an initial operating capability to align with the retirement of the existing RRF vessel; A cost estimate for procurement of each used vessel and an assessment of modernization or conversion costs to support delivering a RRF vessel; A determination of the contracting agency and program office that will be used to procure, modernize or convert the used vessels; and A determination of which agency or program office will assess the material condition and ability to meet RRF or MSC surge fleet requirements of each used vessel prior to purchase;

Initial Assessment:

To supplement the current Surge Sealift inventory, the Navy and USTRANSCOM are pursuing a cost effective path to meet RRF requirements and bridge to the new construction program through the procurement of used vessels. After receiving authorization in the FY 2018 NDAA to acquire 2 used vessels, MARAD issued a Request for Information (RFI) to industry in December 2017, identifying vessel requirements and characteristics. This initial step determined market availability of used vessels with military utility. As directed by the NDAA, priority will go to purchasing U.S.-built commercial vessels and vessels in the MSP will have priority over foreign-flagged vessels.

Industry responses to the RFI identified 64 vessels available for purchase; this did not include any U.S.-built vessels. Of these responses, 13 were U.S. flagged vessels already participating in the MSP, which included 11 RO/RO and 2 container ships.

MSP Background: The Maritime Security Program (MSP) is a DoT program that provides an annual stipend for up to 60 vessels. MSP vessels are U.S.-flagged ships that are otherwise engaged in international trade; were built in foreign shipyards; and provide significant and direct support to DOD cargo movements in peacetime as well as contingency.

Based on initial interest in the RFI, MARAD anticipates a wide range of alternatives to meet surge requirements in response to a future Request for Proposals (RFP).

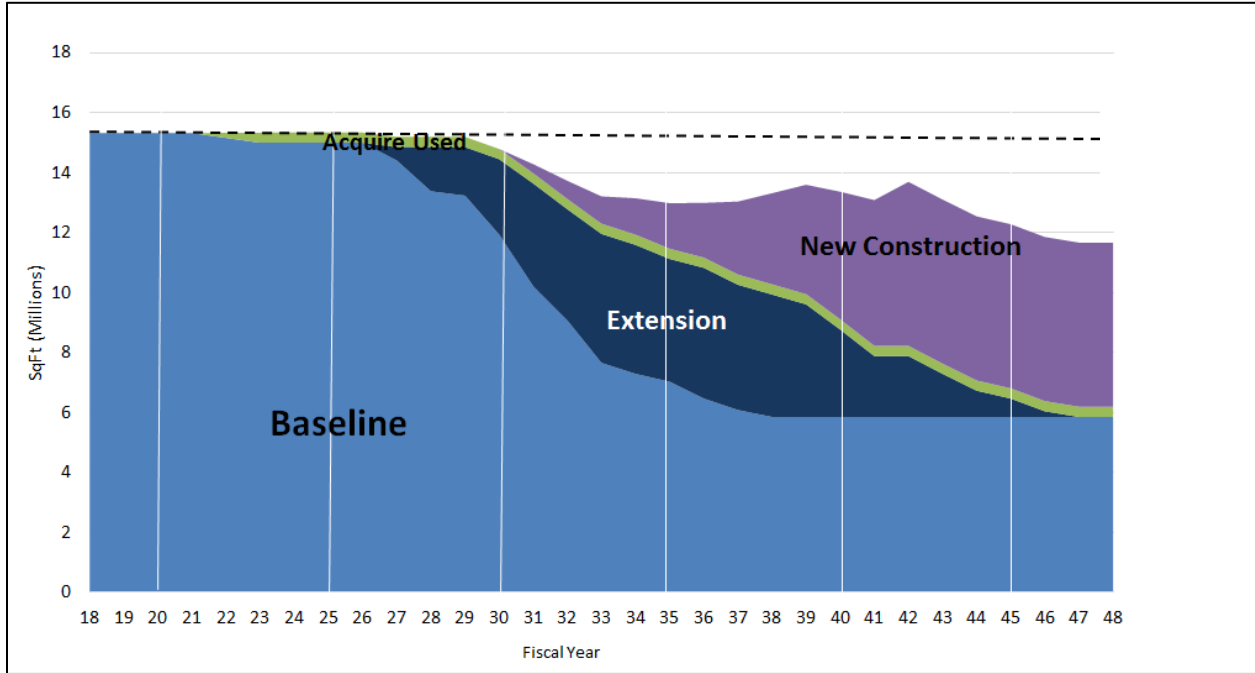
Total Number of Used Vessels Required:

Considering material condition of the current fleet, expected service life, and the new build acquisition timeline, the estimated total number of used vessels required is 26 to maintain the Sealift That the Nation Needs. The Department will continue to work with Congress for authorization to acquire additional used vessels (beyond the 2 currently authorized).

With the FY 2018 NDAA authorization to buy 2 used vessels, *Table 5* shows that without additional authorization, projected shortfall of the required 15.3 million ft² begins in approximately FY 2028, when existing vessels begin to retire out of service.

Square Foot Projection with only Two Acquire Used Vessels

Table 5



Proposed Timeline:

DOD is currently authorized to purchase 2 used ships; the PB19 request includes FY 2021 funding for the first procurement, and FY 2022 funding for the second. MARAD estimates that the time from approval for acquisition to vessel delivery and considered a surge capability, is approximately 18 months.

Cost Estimate for Procurement:

The PB19 request programs \$30 million per vessel to acquire and modernize a used vessel. Total procurement cost will be contingent on size, material condition, and age of the selected vessel. The Navy will work closely with USTRANSCOM and MARAD to determine the most cost effective approach to support operational requirements.

Contracting Agency and Program Office:

The contracting agency will be MARAD who will perform vessel acquisition in accordance with the memorandum of agreement signed between DOD and DOT. A source selection board will include Navy, USTRANSCOM, and MARAD (DOT).

Program Office determination will be contingent on final disposition of the vessel in MARAD’s RRF or MSC’s Surge Sealift.

C. New Construction

A description of the program of record associated with the CHAMP program to include major acquisition milestone events, which shall also include an assessment of the extent to which the CHAMP program could be accelerated;

The Navy’s New Construction plan for Sealift That the Nation Needs includes a domestic common-hull design to replace aging mission specific sealift and auxiliary designs to reduce life cycle costs, leverage reconfigurable force packages, and stabilize the industrial base. The CHAMP concept combines up to 5 sealift and auxiliary recapitalization programs with varying designs and engineering requirements into a single, unified U.S. shipbuilding effort. The Navy intends to conduct industry studies in FY 2019 to inform utility and cost trade space prior to formal requirements definition and development of an acquisition strategy (including milestone schedule). Acquisition milestones will be formalized after CHAMP becomes a formal program of record.

The first CHAMP procurement will be requested in FY 2028, as highlighted in the Navy’s 30 Year Shipbuilding Plan, with first delivery in FY 2031. Procurement would continue through FY 2040. CHAMP procurement could accelerate to as early as FY 2023 with funding and congressional support.

VI. PROGRAM RECAPITALIZATION COSTS

The fiscal profile, by account, that supports this plan to recapitalize the RRF component of the NDRF and the MSC’s surge fleet;

PB19 supports the three-phased approach to achieve the Sealift That the Nation Needs. Initial funding includes \$39.3 million in Fiscal Year 2019, and a total request of \$242.4 million across the FYDP. This includes funding requirements across Operations and Maintenance Navy (OMN) and Research, Development, Test and Evaluation Navy (RD TEN) as detailed in *Table 6*.

Sealift Recapitalization Funding Plan (FY 2019 President’s Budget)

Table 6

Sealift Recap Funding Plan (\$M)	\$2019	\$2020	\$2021	\$2022	\$2023	FYDP (FY19-23)
Service Life Extensions	\$ 21.3	\$ 32.3	\$ 34.5	\$ 38.0	\$ 21.3	\$ 147.4
<i>MSC Service Life Extensions (APPN: OMN; LI: 2A1F)</i>	\$ 4.1	\$ 6.7	\$ 18.0	\$ 4.2	\$ -	\$ 33.0
<i>MARAD Service Life Extensions (APPN: OMN; LI: 2A2F)</i>	\$ 17.2	\$ 25.6	\$ 16.5	\$ 33.8	\$ 21.3	\$ 114.4
Acquire Used Ships (APPN: OMN; LI: 2A2F)	\$ -	\$ -	\$ 30.0	\$ 31.0	\$ -	\$ 61.0
Common Hull Multi-Mission Platform (CHAMP) R&D (APPN: RD TEN; LI: 0603563N)	\$ 18.0	\$ 8.0	\$ 8.0	\$ -	\$ -	\$ 34.0
TOTAL	\$ 39.3	\$ 40.3	\$ 72.5	\$ 69.0	\$ 21.3	\$ 242.4

The current PB19 fiscal profile includes \$61 million in OMN to acquire used vessels in FY 2021 and FY 2022 and the Navy will continue to work with Congress to appropriately fund the acquisition of these vessels. Congress provided authorization language to purchase two used vessels as part of the FY18 NDAA amendments to the National Defense Sealift Fund (NDSF) statute (10 U.S.C. § 2218).

VII. ADDITIONAL REQUIRED LEGISLATIVE AUTHORITIES

Additional legislative authorities, if any, necessary to continue meeting Department of Defense sealift requirements while recapitalizing the surge sealift force.

The DOD will continue to work with Congress as the Sealift That the Nation Needs acquisition strategy evolves across the FYDP. Initially, there is one currently-identified area that requires legislative authority. Specifically, the FY 2018 NDAA provides authority for DOD to purchase up to two used vessels. To maintain the required 15.3 million ft² capacity, DOD will continue to work with Congress to seek authority for acquisition of additional used vessels (up to a total of 26).

VIII. SUMMARY

To achieve the recapitalization of the aging Sealift Fleet and provide Sealift That the Nation Needs, DOD's three-phased approach will deliver the required capability and capacity in the most cost effective manner. Near-term efforts will include investments for (1) service life extensions; mid-term efforts will continue to refine (2) acquire used acquisition plans; and to achieve the long-term goal of (3) new construction, research and development investments are requested in PB19 to ensure the most capable CHAMP solution. The Navy will continue to partner with Congress as well as interagency, joint, and industry partners to ensure the success of this important force projection capability.